PANLAR Abstracts 2021

PANLAR2021-ABS-1253

LORECIVIVINT, AN INTRA-ARTICULAR, SMALL-MOLECULE CLK2/DYRK1A INHIBITOR THAT MODULATES THE WNT PATHWAY, PROVIDES CARTILAGE-PROTECTIVE EFFECTS IN AN ANIMAL MODEL OF POST-TRAUMATIC OSTEOARTHRITIS

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Objectives: Osteoarthritis (OA) is characterized by increased cartilage thinning, bone remodeling, and inflammation. Posttraumatic OA accounts for approximately 12% of all OA cases.[1] Current therapeutic options focus on alleviating symptoms and pain rather than disease modification. Lorecivivint (LOR), an intra-articular (IA), small-molecule CLK2/DYRK1A inhibitor that modulates the Wnt pathway, has been shown in animal studies to induce chondrogenesis, protect cartilage, and reduce inflammation and, thereby, improve joint health.[2] A single IA LOR injection was evaluated in a rat model of knee instability to determine its protective and regenerative effects when injected at different timepoints after induction of post-traumatic OA.

Methods: Knee instability/post-traumatic OA was surgically induced in rats by anterior cruciate ligament and partial medial meniscus transection (ACLT+pMMx). LOR (0.3 μg) or vehicle was injected IA into the damaged knee at 2, 3, or 4 weeks after OA induction. OA-induced (n = 10/group) or sham-operated (surgery without ACLT+pMMx; n = 5/group) rats were sacrificed at the injection timepoint (baseline) or 12 weeks after LOR/vehicle injection (study conclusion). Histology of the anterior and posterior medial femoral condyle (MFC) and medial tibial plateau (MTP) used the summed OARSI scores (stage and grade of cartilage damage).[3] Weight distribution was analyzed by incapacitance meter. Statistical analysis used one-way ANOVA with Dunnett's multiple comparison test.

Results: ACLT+pMMx surgery increased OARSI scores in rats by 2 weeks compared with sham surgeries. LOR treatment at Weeks 2, 3, and 4 led to significant decreases ($p < 0.05$) in total OARSI scores (Table 1) at the end of the study compared with vehicle treatment. Rats treated with LOR for 12 weeks and rats at injection baseline had similar OARSI scores, suggesting that LOR treatment arrested the progression of cartilage damage. Significant improvements ($p < 0.05$) were also observed in the weight distribution of LOR-treated rats in the 3- and 4-week groups at 6 and 12 weeks after their respective IA injections compared with vehicle-treated rats.

Table 1: OARSI scores

Week-2 injection	Sham-operated (14 weeks after surgery)	Baseline (BL) (2 weeks after surgery)	Vehicle (12 weeks after injection)	LOR (12 weeks after injection)
Total score	5.99	19.17	31.36	19.19
SEM	1.07	1.55	2.48	1.81
P value versus BL				0.9999
P value versus vehicle				0.0004

Week-3 injection	Sham-operated (15 weeks after surgery)	Baseline (BL) (3 weeks after surgery)	Vehicle (12 weeks after injection)	LOR (12 weeks after injection)
Total score	6.09	23.17	30.45	21.20
SEM	1.25	1.36	1.42	1.00
P value versus BL				0.4522
P value versus vehicle				0.0001

Week-4 injection	Sham-operated (16 weeks after surgery)	Baseline (BL) (4 weeks after surgery)	Vehicle (12 weeks after injection)	LOR (12 weeks after injection)
Total score	6.97	16.88	24.95	18.63
SEM	1.32	1.04	1.74	1.61
P value versus BL				0.6257
P value versus vehicle				0.0111

Conclusion: LOR exhibited cartilage-protective effects and slowed disease progression in the ACLT+pMMx model in vivo and, therefore, has potential as a structure-modifying treatment for OA.

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PANLAR2021-ABS-1136

NOVEL THERAPEUTIC TOOLS FOR OSTEOARTHRITIS: BLOCKING MYD88-DEPENDENT INDEPENDENT INNATE IMMUNE RESPONSES

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Objectives: The incidence of osteoarthritis (OA) has skyrocketed in the last decade and yet no definitive treatments are available. Screen on novel and repurposed drugs with anti-inflammatory capabilities brough us the indian traditional medicine compound boswellic acid, and the repurpose of naloxone and thalidomide two clinical available drugs.

The activation of innate immune receptors such as TLR4 is involved in chondrocyte-mediated inflammatory responses and OA development. Big data analysis of these three candidates hints us as potential inhibitors of TLR4. Nonetheless, little is known about the specific mechanism of action, pathway crosstalks (IL1R, TNFR, IFNAR) and the cell-specificness to block TLR4-mediated articular inflammatory and catabolic responses.

Our aim is to determine the potential ability of beta boswellic acid (BBA), naloxone (NLX) and thalidomide (Th) as OA therapeutic tools.

Methods: The binding affinity was determined by docking algorithms. Big data was analyzed by STICHT & STRING.

Proteome profiling (LC-MALDI/TOFF) was used to study inflammatory pathways. The effect of drug candidates on TLR4-mediated innate immune responses was determined by RT-PCR, Western Blot and ELISA in primary human OA chondrocytes and osteoblasts, human synoviocytes and murine chondrocytes and macrophages. Biochemical assays MTT, Griess, Malachite Green and CASP1-pNA assays were also used.

Results: The selection of BBA, NLX and Th as potential TLR4 inhibitors in joint tissues was performed via text-mining. Furthermore, these results were validated by in silico docking analysis. Cellular proteome and secretome profiling validated the activation of TLR4 and IL1R signalling by LPS and IL1β ligands and revealed an enrichment in innate immune responses (NF-Kβ, NLRP3, MMPs, Interleukins, etc). Non-toxic doses of BBA, NLX and Th prevented the activation of TLR4 in multiple articular joint cells and inhibited TLR4 & IL1R-dependant innate immune responses at the mRNA and protein level such as inflammatory factors IL6, NOS2, COX2, LCN2, MMP1, -3, -9, -13 and ADAMTS4, among others. Furthermore, TLR3/TRIF/IFNB1, NF-Kβ/IKBα and NLRP3/PYCARD/IL1β axis were also differentially inhibited after BBA, NLX and Th treatment.

Conclusion: Our data support previous literature on BBA as an anti-OA drug, and show BBA, NLX and Th as TLR4 signal inhibitors. All in all, we provide new therapeutic tools to manage OA inflammation due to its content in BBA for the clinical practice of rheumatologists.

PANLAR2021-ABS-1396

A POTENTIAL ROLE OF NLRP3 INFLAMMASOME SINGLE NUCLEOTIDE POLYMORPHISMS IN THE RISK OF GOUT

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Objectives: Gout is an inflammatory disease triggered by the deposition of monosodium urate crystals (MSUc) in joints and other soft tissues as a result

of a chronic hyperuricemia [1]. The worldwide prevalence varies between 0.1-10%; while in Mexico the prevalence reported by a COPCORD study was 0.3% [2]. The NALP3 inflammasome is involved in the inflammatory response, and the single nucleotide polymorphisms (SNPs) in this pathway are related with the development of gout. The aim of this study is to determine the association of the SNPs within the NALP3 inflammasome genes and the risk to develop gout in a Mexican population.

Methods: This case and control study comprised 463 gout patients and healthy subjects from Mexican population cohort.

Eight SNPs from seven different genes within the NLRP3 pathway (TLR4, CD14, NLRP3, CARD8, IL-1b, P2RX7 and PPARGC1B) and 11 ancestry-informative markers were genotyped using the StepOnePlus Real-Time PCR Systems. The allelic discrimination and ancestry were analyzed by the Step One v2.3. and STRUCTURE1.2.1 software respectively. To perform the statistical analysis the SPSS Statistical Software was used. Allelic and genotype frequencies were estimated for all polymorphism and compared between groups using Fisher's exact test. Multiple conditional logistic regression model analysis was carried out to estimate the association between genotypes of each SNP and gout; the results were estimated by the odds ratio (OR) and 95% confidence intervals (CIs). The analyze was adjusted by sex, age, BMI and ancestry, taking into account a dominant inheritance model for the SNPs. The $p < 0.05$ was considering as significance level.

Results: The missense SNP rs45520937 of PPARGC1B, was associated positively with the risk of gout when it was analyzed using the dominant model, evidencing that gout patients carried the G/G or A/G-A/A genotype have an elevated risk compared to the control group [OR (95% CI) = 2.30 (1.09-4.86), p = 0.030] and it is proposed that the adaptor molecule CD14 rs2569190 polymorphism could be associated with gout risk in the recessive mode [OR (95% CI) = 0.41 (0.16-1.05), p = 0.064]. None of the other SNP was associated with the risk of gout.

Conclusion: Our data suggest that the PPARGC1B rs45520937 SNP is associated with an increased gout susceptibility and could provide a useful genetic marker.

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PANLAR2021-ABS-1317

ANALYSIS OF THE EFFECTS OF NATURAL AGING ON THE MORPHOMETRIC PATTERNS OF THE FEMORAL DIAPHYSIS OF FEMALE WISTAR RATS

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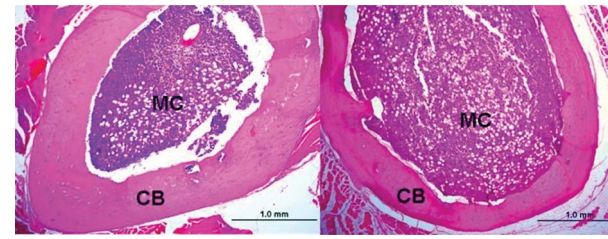
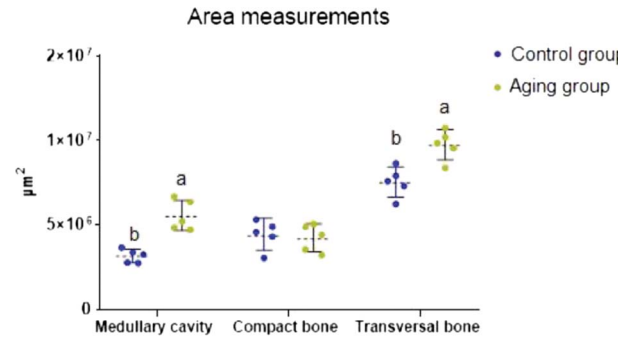
Objectives: Life expectancy is increasing considerably, associated with this, there is an increase in the number of cases of diseases associated with advancing age. Osteoporosis is one of them, which is characterized by a reduction in bone mineral density, affecting bone structure, causing fragility and generating falls. Thus, this study evaluated the effects of aging on the bone tissue of the femoral diaphysis of 10 female Wistar rats.

Methods: The animals were divided into two groups (n = 5): young control group (CTL), three months old, and aging group (AGG), 26 months old. After the experimental period, the femurs were collected to obtain histological slides with transversal sections of the femoral diaphysis; the slides were stained with hematoxylin and eosin for histomorphometric analysis. The diaphyses were analyzed for the total cross-sectional area (transversal bone), the area of the medullary canal (medullary cavity) and the area of the cortical region (compact bone) (figure 1).

Results: It was found that the AGG group showed a significant increase in the total cross-sectional area and in the medullary canal area in relation to the CTL group ($p = 0.004165$) and ($p = 0.0006015$), respectively. Regarding the area of the cortical region, no significant difference was found between the groups ($p = 0.7098$) (figure 2).





Conclusion: Our results demonstrate that AGG animals showed a reduction in bone matrix, characteristic of the aging process and this change can interfere with bone resistance, which can trigger irreversible damage. This experimental model is essential to study the aging process and to understand the mechanisms involved in this period of life.

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PANLAR2021-ABS-1320

OSTEOPOROSIS-RELATED CHANGES ON TRABECULAR BONE IN AGING WISTAR RATS

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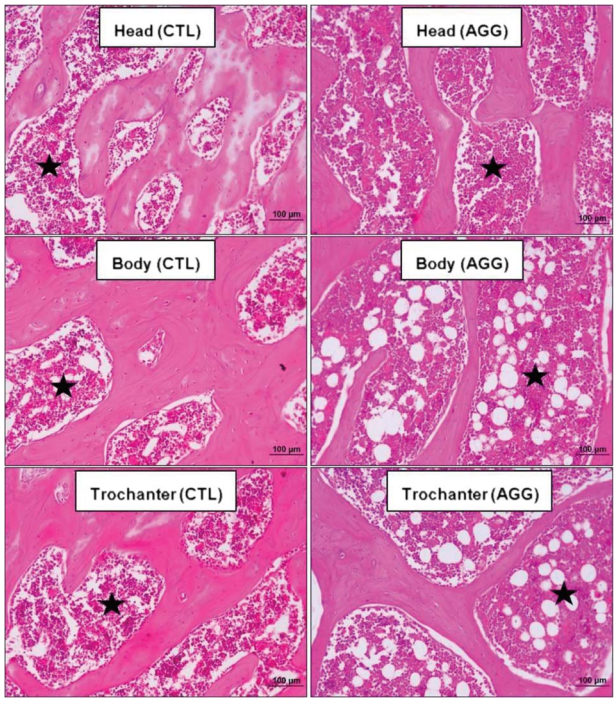
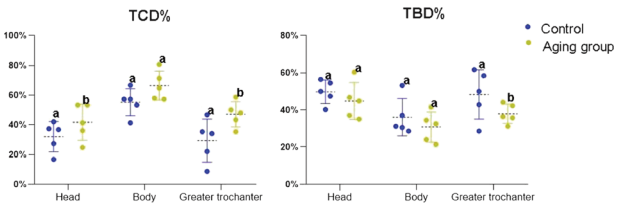
Objectives: Osteoporosis is the main cause of severe morbidity and functional loss in aging population, increasing the risk of falls, bone damage, and fracture. Since current osteoporosis diagnostic methodologies do not clearly provide information about quality of trabecular bone arrangement, senescence-related studies in animal model can provide significant knowledge on the determinants of bone quality, and osteopenia.

Methods: In this study, 10 female Wistar rats were randomly divided into 2 groups: Young control group, 3 months old (CTL); and Aging group with 26 months old (AGG). The proximal epiphysis fragment of right femoral bone was processed and analyzed. Subsequent morphological changes were photomicrographed to demonstrate the results of tissue arrangement (Figure 1). The percentage of bone trabeculae cavities (TCD%) as well as the trabeculae bone density (TBD%) was replicated on 3 different regions (femoral head, body, and greater trochanter), and then performed descriptive and inferential statistics using the software R-Studio Version 1.4.1106, assuming $p < 0.05$ (Graphic 1).

Results: The TCD% results of both femoral head and greater trochanter demonstrated that the average of AGG aging group was significantly higher ($p < 0.05$) than CTL young group. However, in TCD% of the femoral body, there was no significant differences between young and aging groups ($p = 0.09891$). On the TBD% of the trochanteric region, it was found that the

average of AGG aging group was significantly lower ($p < 0.05$) than CLT group. In relation to the femoral head and body TBD%, there was no difference, ($p = 0.1606$) and ($p = 0.3003$) respectively, between young and aging groups. Considering all regions, it was verified that the total TCD% average of AGG group was also significantly higher ($p < 0.05$) than CLT group. Similarly, it was verified that the total TBD% of AGG group was significantly lower ($p < 0.05$), than the total of CLT animals (Figure 2).





Conclusion: The results denote the efficacy of spontaneous aging on histomorphometrics and morphological properties of trabecular bone, and disagreements between the proximal epiphysis regions aging-related changes.

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PANLAR2021-ABS-1150

LORECIVIVINT, AN INTRA-ARTICULAR, SMALL-MOLECULE CLK2/DYRK1A INHIBITOR THAT MODULATES THE WNT PATHWAY, AS A POTENTIAL TREATMENT FOR MENISCAL INJURIES

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Objectives: Meniscal injuries are the most common knee pathology, associated with pain, stiffness, and swelling. Meniscal damage is a common MRI finding in knee osteoarthritis (OA).[1] Efforts to repair meniscal damage are largely unsuccessful and do not prevent the progression of knee OA-associated degenerative changes.[2] Regulation of the Wnt pathway during meniscal development[3] suggests manipulation of this pathway may influence meniscal regenerative capacity. Lorecivivint (LOR) is an intra-articular (IA), small-molecule CLK2/DYRK1A inhibitor that modulates the Wnt pathway.[4] In preclinical studies, LOR was evaluated for its protective and anabolic effects in ex vivo explants and in a rat model of inflammatory meniscal degeneration.

Methods: Effects of LOR (30 nM) on matrix metalloproteinase (MMP) expression in cultured rat menisci treated with IL-1b were measured by qRT-PCR. In vivo, a single IA injection of LOR (0.3 mg) or vehicle was given immediately after injection of monosodium iodoacetate (MIA). Knees were harvested on Days 1, 4, and 11 and menisci were isolated. Anti-inflammatory effects were evaluated by qRT-PCR for TNFA and IL6 expression. Meniscal protection was evaluated by qRT-PCR for MMPs and aggrecanase. Anabolic effects were evaluated by qRT-PCR for collagens.

Results: In ex vivo meniscal explants, LOR inhibited expression of MMP1, MMP3, and MMP13 compared with DMSO ($p < 0.01$). In vivo, LOR significantly decreased expression of MMPs and aggrecanase ($p < 0.05$) and reduced expression of inflammatory cytokines TNFA and IL6 compared with vehicle in the rat model of inflammatory meniscal degeneration at Day 4 after MIA injection. Additionally, LOR increased expression of collagen types I, II, and III at Day 11 after MIA injection (Figure 1).

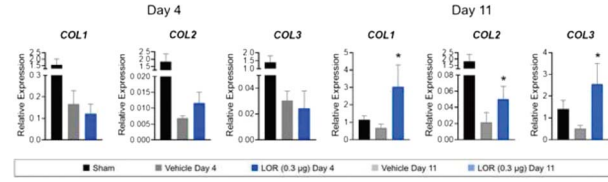

Figure 1. LOR increased collagen gene expression in vivo. A single IA injection of monosodium iodoacetate (MIA, 3 mg) was immediately followed by a single IA injection of LOR (0.3 µg) or vehicle at 10 weeks of age. Knees were harvested on Days 1, 4, and 11 after injection and menisci were isolated. Gene expression was measured by qRT-PCR. N=3. Mean ± SEM. *P<0.05, one-way ANOVA

Conclusion: LOR exhibited meniscus protective effects ex vivo and in vivo by reducing catabolic enzyme expression compared with control. Anti-inflammatory effects of LOR were demonstrated by inflammatory cytokine expression inhibition. Compared with vehicle, LOR increased collagen expression in vivo, indicating potential meniscal anabolic effects. These data support investigation of LOR as a potential structure-modifying treatment for meniscal injuries.

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PANLAR2021-ABS-1074

BIOLOGIC AGENTS FOR RHEUMATIC DISEASES IN THE COVID-19 OUTBREAK: FRIEND OR FOE?

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Objectives: To estimate COVID-19 infection rate in patients treated with bDMARDS due to rheumatic inflammatory diseases, determine the influence of the treatment as a risk or protective factor and studying the prognosis of rheumatic patients receiving biologic agents compared to general population in a third level Hospital setting in León, Spain.

Methods: We performed an observational study including patients who received bDMARDs due to rheumatic diseases between December 1st 2019 and December 1st 2020 and examined the COVID-19 infection rate. We performed a multivariate logistic regression model to assess risk factors of COVID-19 infection

Results: There was a total of 3711 patients with COVID-19 requiring hospitalization. 40 patients out of a total of 820 patients with rheumatic diseases (4.8%) receiving bDMARDs were infected with COVID-19 and four required hospital care. Crude incidence rate of COVID-19 requiring hospital care among the general population was 2.75%, and it was 0.48% among the group with underlying rheumatic diseases. Out of the 3711 patients, 423 patients died, 2 of which received treatment with biologic agents. Patients with rheumatic diseases who tested positive for COVID-19 were older (female: median age 60.8 IQR 46-74; male: median age 61.9 IQR 52-70.3) than those who were negative for COVID-19

(female: median age 58.3 IQR 48-69; male: median age 56.2 IQR 47-66), more likely to have hypertension (45% vs 26%, OR 2.25 (95%CI 1.14-4.27), p = 0.02), cardiovascular disease (23 % vs 9%, OR 2.85 (95%CI 1.31 – 6.23), p = 0.01), be smokers (13% vs 4.6%, OR 2.95 (95%CI 1.09-7.98), p = 0.04), receiving treatment with rituximab (20% vs 8%, 2.28 (CI 1.24-6.32), p = 0.02) and a higher dosage of glucocorticoids (OR 2.2 (1.2-10.23), p 0.02) and were less likely to be receiving treatment with IL-6 inhibitors (0.03% vs 14%, OR 0.16, (95%CI 0.10-0.97), p = 0.03). Patients who tested negative for COVID-19 were more likely to be treated with bDMARDs for a longer period (in months) than patients with a positive result (OR 0.54 (95%CI 0.22-0.87), p = 0.04). We found no differences in sex or rheumatological disease between patients who tested positive for COVID-19 and patients who tested negative.

Conclusion: Overall, the use of bDMARDs was not associated with severe manifestations of COVID-19. Patients with rheumatic disease diagnosed with COVID-19 were more likely to be receiving a higher dose of glucocorticoids and treatment with rituximab. IL-6 inhibitors may have a protective effect.

PANLAR2021-ABS-1196

RESULTS AFTER 3 YEARS IN THE MANAGEMENT OF A PROGRAM FOR THE EVALUATION AND RAPID DIAGNOSIS OF PATIENTS WITH JOINT PAIN

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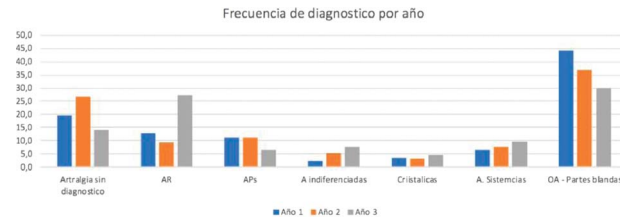
Objectives: Based on the general concept of early diagnosis, we know that it is necessary to implement more and better strategies to evaluate and diagnose joint pain. The aim was to describe the characteristics and diagnoses of patients who were evaluated in the Reuma-Check program for a period of 3 years and to evaluate how the diagnostic patterns were through the years by applying improvements in the process.

Methods: Cross-sectional study, which included patients older than 18 years of age who were admitted for arthralgias into the "Reuma-Check" program (2017-2020). In this program, laboratory test, X-ray films, hands ultrasound and interview (sociodemographic data, clinical data and clinimetric) were performed at baseline. Each evaluator did not know the data of the other studies carried out. The final diagnosis was recorded in the clinical history as undiagnosed arthralgia, rheumatoid arthritis (RA), psoriasic arthritis (PsA), undifferentiated arthritis, crystal arthritis, systemic autoimmune diseases and osteoarthritis/soft tissue disorders. The frequency of these diagnoses was estimated during the three years and in each year separately. Every year an evaluation of the diagnoses was carried out and improvements were established in the program. Descriptive statistics were performed.

Caracteristicas	n: 743
Sexo femenino n(%)	552 (74)
Edad años (DE)	53,6 (14,5)
Años de estudio (DE)	14 (3,5)
Comorbilidades n(%)	471 (65)
HTA n(%)	227 (30)
Diabetes n(%)	91 (12)
EPOC n(%)	19 (2,6)
Neoplasia n(%)	36 (4,8)
ACV n(%)	17 (3,3)
Dislipemia n(%)	138 (18,5)
Fibromialgia n(%)	46 (6)
Tabaquismo n(%)	312 (42)
Sintomas menor a 1 año n(%)	321 (43)
Sintomas en metacarpofalangicas n(%)	322 (43,2)
Rigidez matinal 60 mint n(%)	137 (19)
Dificultad para cerrar el puño n(%)	136 (18)
Squeeze positivo n(%)	273 (37)
Articulaciones dolorosas (RIC)	3 (1-5)
Articulaciones inflamadas (RIC)	0 (0-1)
EVA dolor (DE)	50 (21,7)
HAQ (RIC)	0,5 (0,25-1)
Rx erosiones y/o pinzamientos n(%)	276 (37,5)
Eco tenosinovitis n(%)	60 (8)
Eco sinovitis EG n(%)	79 (10,6)
Eco sinovitis DP n(%)	72 (10,4)
Eco rizartrosis n(%)	244 (33)
ERS mm/hr (DE)	20,8 (16)
PCR mg/L (RIC)	1 (1-4)
Tiempo desde el inicio de los sintomas - meses (RIC)	12,9 (5-36)



Results: A total of 744 patients were evaluated during the 3 years; the clinical characteristics, laboratory and images are shown in table 1; it should be noted that the median diagnosis delay was 12.9 months. The number of patients evaluated per year was: 172, 323 and 249, respectively. The frequency of diagnosis was: arthralgias without diagnosis 20%, RA 16%, PsA 9.5%, undifferentiated arthritis 5.4%, crystal arthritis 3.8%, systemic autoimmune diseases 8.1% and osteoarthritis/soft tissue disorders 36%. Year after year, the improvements made were to train the admission personnel and to educate for referring physicians.

Conclusion: In a period of three years 744 patients were evaluated in the reuma-check program, it should be noted that in general, the diagnosis delay is one year. The program showed a percentage increase in RA and systemic autoimmune disease diagnoses and a decrease in undiagnosed arthralgia and other pathologies, demonstrating that the program was successful.

PANLAR2021-ABS-1367

INCIDENCE AND SEVERITY OF COVIDD-19 IN PATIENTS WITH SPONDYLOARTHRITIS IN ARGENTINA

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Objectives: To describe the incidence and severity of COVID-19 disease in Spondyloarthritis patients in Argentina.

Methods: Patients with axial spondyloarthritis (AxSpA) radiological (AS) and non-radiological (AxSpA-nr) and peripheral spondyloarthritis (according to ASAS criteria, SpAp) and Psoriatic arthritis (PsA) (according to CASPAR criteria) were included. The patients were followed up by phone or in person on a monthly basis. Data were collected from 1/4/2020 to 20 / 9/2020. Descriptive statistics were performed with mean and standard deviation (SD) and median and 25-75 percentile according to distribution, and the cumulative incidence (CI) of the disease was calculated.

Results: 320 patients were included, of which 55% were male, with a mean age of 50 (SD 13), 21.6% had a diagnosis of AS, 6.9% AxSpA-nr, 6.9% SpAp and 64.7% PsA. The duration of the disease was 11 (5-16), BASDAI 3.65 (3), BASFI 3 (1.5-9), PASI 0.3 (0-7), BSA 0.2 (0-6). Fourteen patients with a diagnosis of COVID-19 (4.4%) were reported, of which 10 diagnoses were by positive PCR and 4 by symptoms associated with positive close contact. Thirteen (93%) cases were patients from the Province of Buenos and Ciudad Autónoma de Buenos Aires (CABA) and 1 patient from Santiago del Estero. The total CI of the country was 0.04, the CI of the Province of Buenos Aires + CABA 0.04, and the CI of the rest of the provinces 0.01. Of the 14 patients with COVID-19: 50% were men; 4 have a diagnosis of AS, 1 of SpAax-nr, 9 (64.3%) PsA. All of them

in urban areas, 79% have social work, 2 (14%) have hypertension, 1 (7%) diabetes mellitus, 4 (28.6%), hypothyroidism, 1 (7%) Chronic Obstructive Pulmonary Disease, 2 (14%) Depression o Anxiety. Regarding the treatments: 4 (28.6%) were in treatment with anti TNF (3 with Adalimumab, 1 with certolizumab pegol), 4 (28.6%) with Anti IL17 (3 with Secukinumab and 1 with Ixekizumab), 8 (57%) methotrexate and 2 (14%) Leflunomide, 1 (7%) were under treatment with Enalapril, 1 (7%) with Losartan. 10 (71.4%) stayed at home, 3 (21.4%) hospitalized in the common room and 1 (7) in the intensive care unit. No patients died due to COVID-19.

Conclusion: An incidence of 4.4% of COVID-19 was found in this SpA population, most of the cases occurred in the Province of Buenos Aires and CABA, most of them suffered mild symptoms and no deaths were reported.

PANLAR2021-ABS-1400

CONSTRUCTION AND VALIDATION OF THE REPRODUCTIVE HEALTH QUESTIONNAIRE FOR WOMEN WITH RHEUMATIC DISEASES

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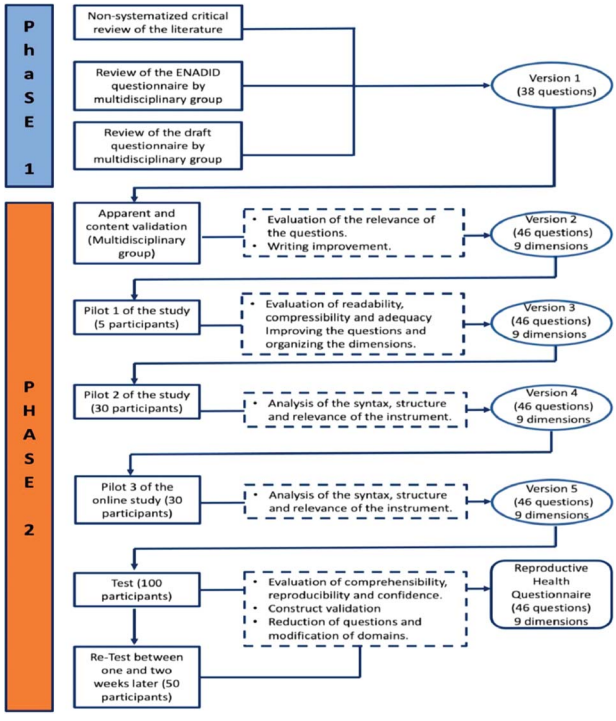
Objectives: Autoimmune rheumatic diseases (ARD) commonly affect women of childbearing age (1, 2). Active maternal disease in the months prior to conception increases the risk of flares during pregnancy, which increases the risk of adverse pregnancy outcomes. Therefore, maternal and fetal health can be optimized by planning conception when the disease is controlled so that a treatment regimen can be kept throughout the pregnancy (1).

This study aims to carry out the construction and validation of a Reproductive Health Questionnaire (RHQ) for patients with ARD.

Methods: A validation and construction of a RHQ was carried out in women of childbearing age with ARD. The validation took place in two phases. First phase: A review of the literature and construction of the questionnaire was performed by a multidisciplinary team of experts. Second phase: A cross-sectional study was conducted to complete the validation and estimate Cronbach's alpha based on tetrachoric correlation coefficients, correlation matrix, and Cohen's kappa coefficient test. The stability of the instrument was measured by comparing two measurements on the same study subject (re-test) with a time-lapse between them.



Results: First phase: we developed an instrument of 38 questions; some drafting questions were modified because of the confusion or discomfort they caused to some patients; furthermore more response options were added (Figure 1). In the second phase, version 5 of the RHQ was applied to 100 women with ARD, the average age of the patients was 35 years. The most frequent disease was rheumatoid arthritis (54%), we founded a difference of 6 months between the onset of the symptoms of the disease and the diagnosis. The correlation matrices showed good correlations in dimensions 3, 5, 6, 7, and 9 (0.53, 0.82, 0.92, and 0.452 respectively); we found difficulties in two dimensions, therefore they were restructured.

Conclusion: The RHQ is a useful and practice tool to assess reproductive health (fertility, reproductive preferences, contraception, counseling, sexuality, and breastfeeding) in women with ARD, and could help with timely intervention on reproductive health issues, decreasing both fetal and maternal adverse outcomes.

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PANLAR2021-ABS-1361

CLINICAL AND SEROLOGICAL EVOLUTION OF SARS-COV-2 INFECTION IN RHEUMATIC PATIENTS

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Objectives: To describe the prevalence of symptoms, hospitalization and seroconversion in patients belonging to a rheumatology department of a tertiary hospital.

Methods: Observational, cross-sectional study conducted by phone interview. Rheumatic diseases included are shown. Data about symptoms, hospital admission, serology by ELISA (when disease duration was longer than15 days), diagnosis and baseline treatment, from March 2020 to February 2021 were collected.

Results: Eighty-six patients with different rheumatic diseases and positive COVID-19 PCR were included (82.35% women). Mean age was 49.30 (16.16) years. 48.71% of the patients received biological therapy, JAK inhibitors or apremilast, with a median of 3.11 years (Q1 1,08; Q3 3,17). 34,18% of the patients received DMARDs or immunosuppressors, for a median of 5.09 years (Q1 12,25; Q3 11.09). The most frequent symptoms were asthenia (72.15%), headache (66.23%) and cough (59.49%). Nine patients (11.25%) were admitted to hospital, eight of them (10%) due to pneumonia. Three of them were admitted to intensive care unit and one died. Seroconversion occurred in 53.25%. Low IgG titers were present in 2.94% and IgM persisted positive in 56.25% of this group. In 6.45% the result was indeterminate.

Conclusion: Hospitalization and mortality rates obtained were low and the most frequent symptoms were mild. Seroconversion occurred in more than 50% of patients and the result of 6.45% was indeterminate. It is important to highlight that since March 2020 to May 2020 IgG positive prevalence was 25%, while since September 2021 to February 2021, this prevalence increased to 57,45%. This difference is due to a modification of autoantibody detection technique since the summer 2020.

PANLAR2021-ABS-1372

ETHNIC DISPARITIES IN PREMATURE MORTALITY BURDEN FROM SYSTEMIC LUPUS ERYTHEMATOSUS. CUBA, 2002 AND 2012

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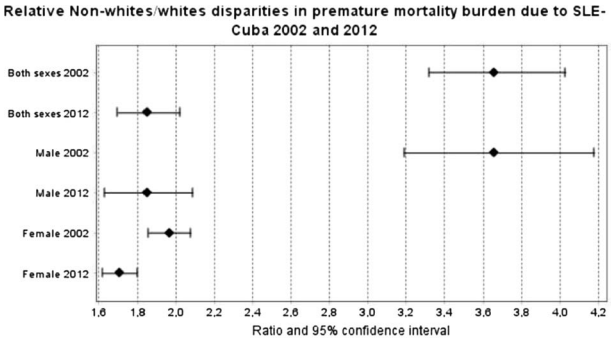
Objectives: Premature mortality due to systemic lupus erythematosus (SLE) is increased in Latin America.[1] Significant racial disparities exist in the prevalence and outcomes of SLE.[2] However, the magnitude of these disparities in terms of premature mortality from SLE has not been investigated in Cuba. Our aim was to identify ethnic disparities in premature mortality burden due to SLE in Cuba.

Methods: Data were obtained from the mortality database of the Ministry of Public Health of Cuba (International Classification of Diseases-10, code 32 as underlying cause of death). Years of life lost (YLL) were calculated using the

standard life expectancy of the WHO's global health estimates. Age- and sex-specific YLL rates were calculated using the mid-year population of Cuba in the years in which this data were available by ethnicity (2002 and 2012). The age-standardized YLL rate (ASYR) was estimated by the direct method using the WHO's standard population. As measures of disparities, ASYR differences and ASYR ratios between non-whites and whites were calculated. The ASYR ratios 95% confidence intervals were calculated using the Byar's formula.

Results: 52.3% (33/63) and 43.9% (40/91) of SLE deaths were non-white patients in 2002 and 2012, respectively. In 2002 the ASYR difference between non-whites and whites was 340 and 80 YLL per million inhabitants in females and males, respectively. In 2012 the ASYR difference between non-whites and whites was 300 and 60 YLL per million inhabitants in females and males, respectively. In women the ASYR ratio was 1.97(690/350 YLL per million inhabitants) in 2002 and 1.71(720/420 YLL per million inhabitants) in 2012. For men the ASYR ratio was 3.66(110/30 YLL per million inhabitants) in 2002 and 1.85 (130/70 YLL per million inhabitants) in 2012 (See Figure 1).



Conclusion: There is a considerable gap in the premature mortality burden between non-white and white SLE patients, which persists in 2012 despite its slight reduction. Further research is needed to better understand the biological and social mechanisms that determine these unfavorable outcomes in Cuban non-white SLE patients.

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PANLAR2021-ABS-1297

OCCURRENCE OF RARE AND RHEUMATIC PATHOLOGIES IN PATIENTS SEEN AT A BASIC HEALTH UNIT IN TEFé, AM

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Objectives: Primary care is considered the gateway to the Unified Health System (SUS) in Brazil, with Basic Health Units (UBS) being the main place where patients with chronic noncommunicable pathologies and other diseases are identified and, in some cases, referred to services of greater complexity. This study aims to evaluate the profile of patients with rheumatic and rare diseases found in a UBS in the city of Tefé, AM.

Methods: Between August 2018 and June 2019, a cross-sectional study was carried out on a sample of 120 patients located at UBS São Miguel, located in the city of Tefé, Amazonas. The data were processed using the program Statistical Package for the Social Sciences (SPSS) for Windows and Epi Info, where a bivariate analysis was performed and, subsequently, the absolute and relative frequencies were calculated. As independent variables, age, sex and type of disease were considered.

Results: Most patients were over 30 years of age (70%), with a predominance of females (60%). The most frequent rheumatic pathologies were osteoarthritis (62%), osteoporosis (58%), rheumatoid arthritis (RA) (48%) and systemic lupus erythematosus - SLE (35%); RA occurred predominantly in women, especially in the 30- 40 years of age. SLE also predominated among women (70%). Regarding rare diseases, the presence of rheumatoid vasculitis (male patient, 65 years old) and Ehlers-Danlos Syndrome (female patient, 19 years old) were observed.

Conclusion: It can be said that in the context of basic care in Brazil, it is possible to find a diversity of rheumatic diseases and even some rare pathologies. Therefore, knowing the clinical behavior of these pathologies allows a better understanding of the local reality.

PANLAR2021-ABS-1430

IMPACT OF THE COVID-19 PANDEMIC ON MENTAL HEALTH FROM PATIENTS WITH AUTOIMMUNE RHEUMATIC DISEASES

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Objectives: Evidence suggests an association between rheumatic diseases (RD) and the development of anxiety and depression [1]. The COVID-19 pandemic is considered a traumatic event as it may cause physical, emotional, and psychological damage. Social and economic problems, and the exposure to stressors could favor the appearance of anxiety and depression symptoms [2]. The Centers for Disease Control and Prevention reported elevated levels of adverse mental health conditions, substance use, and suicidal ideation during the COVID-19 pandemic [3]. Our aim was to evaluate the prevalence and characteristics of patients with RD at risk of developing mental health problems during the COVID-19 pandemic.

Methods: We carried out a cross-sectional study. We selected patients with rheumatoid arthritis (RA) or systemic lupus erythematosus (SLE) that completed the Hospital Anxiety and Depression Scale (HADS) from our medical records. Our population was classified according to the time they were evaluated into two groups: before COVID-19 pandemic and during COVID-19 pandemic. Categorical variables were assessed using χ^2 test and Fisher's exact test where

	Before COVID-19 Pandemic (n=117)	During COVID-19 Pandemic (n=34)	p value
Age in years, mean ± SD	49.29 ± 14.89	37.08 ± 10.19	**.023**
Gender			
Women, n (%)	107 (91.45)	33 (97.05)	.268
Men, n (%)	10 (8.54)	1 (2.94)	.268
School attendance, n (%)			
None	0	4 (11.76)	.275
Elementary	39 (33.33)	0	**.000**
Junior high	42 (35.89)	18 (52.94)	.074
High School	19 (16.23)	11 (32.35)	**.038**
College	12 (10.25)	5 (14.70)	.470
Marital status, n (%)			
Single	33 (28.20)	7 (20.58)	.376
Married	49 (41.88)	16 (47.05)	.591
Divorced	18 (15.38)	5 (14.70)	.923
Consensual union	6 (5.12)	6 (17.64)	**.018**
Widowed	11 (9.40)	0	.063
Diagnosis, n (%)			
Rheumatoid arthritis	92 (78.63)	22 (64.70)	.092
Systemic lupus erythematosus	25 (21.36)	12 (35.29)	.092
Any comorbidity	80 (68.37)	7 (20.58)	**.000**
Body mass index classification, mean ± DE	27.59 Overweight	28.01 Overweight	.934
Time of evolution of the disease, months, mean ± DE	103.03 ± 114.00	61.78 ± 73.52	**.000**
HADS depression classification, n (%)			
Normal	86 (73.5)	29 (85.29)	.156
Borderline abnormal,	16 (13.67)	2 (5.88)	.271
Abnormal	15 (12.82)	3 (8.82)	.527
HADS depression score, mean ± SD	4.97 ± 4.63	2.97 ± 3.88	.146
HADS anxiety classification, n (%)			
Normal	80 (68.37)	25 (73.52)	.565
Borderline abnormal	16 (13.67)	4 (11.76)	.772
Abnormal	21 (17.94)	5 (14.70)	.659
HADS anxiety score, mean ± SD	5.82 ± 4.45	4.35 ± 4.40	.762

appropriate. Student's t-test was used to assess continuous variables. A p value of 0.05 or less was considered significative.

Results: We collected data from 151 patients, 117 (77.48%) were evaluated before the COVID-19 pandemic, 140 (92.71%) were female. The main diagnosis was RA in 114 (75.49%) patients. Other characteristics in Table 1. We found no difference in HADS score between both groups, but patients evaluated during the pandemic were younger (49.2 vs 37.0 years old, p = 0.23), and had higher education levels, less comorbidities (20.5% vs 68.3%, p < 0.0001), and less duration of the disease (61.7 vs 103.0 months, p < 0.0001).

Conclusion: We found no difference in the prevalence of mental health disorders in our population before and during the COVID-19 pandemic. As the patients studied before the pandemic are older, this may suggest that they could be avoiding hospital contact. It is necessary to improve data collection methods to obtain representative samples and better outcomes.

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PANLAR2021-ABS-1306

RISK PERCEPTION AND THE IMPACT OF THE SARS-COV-2 (CORONAVIRUS) PANDEMIC ON RHEUMATIC DISEASES IN MEXICO

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Objectives: To describe risk perception and its relationship with sources of information consulted, actions, and the impact of the pandemic on the physical and mental health as well as social aspects of a group of patients from the rheumatology consultation.

Methods: A survey was conducted from August 10 to November 29, 2020 in rheumatic diseases (RD) patients who returned to an outpatient clinic in Mexico following the Stay at home program implemented from March 23 to July 31.

An online questionnaire was administered on mobile devices. Measurements: Assessment of the patient's health status by rheumatologist (visual analog scale ranging 0-10) and some sections of the UNIV-COVID-19 questionnaire. A descriptive analysis was performed. Measures of central tendency and dispersion for continuous variables and frequency measures for categorical variables. Normality was checked with the Shapiro-Wilk test. Inferential statistical tests were performed to determine differences between the COVID-19 + vs - groups with Chi-square and Student´s t test for nominal and continuous sociodemographic variables, respectively. Logistic regressions were performed.

Results: A total of 471 patients with RD were included, 84.5% women, aged 46.9 (SD 14.5) years old; rheumatoid arthritis (RA) was the most prevalent diagnosis 42.4%. 4.8% had SARS-CoV-2 infection, 21.74% required hospitalization. Treatment modification was reported in 36.1% (66.6% discontinued); health condition worsened in 39.1% of the patients. 52.1% of the patients who made modifications in their treatment had COVID-19 and 39.1% of those who had COVID-19 reported that their health condition worsened. The perception of risk was 85.9% (very serious/serious). The preventive action carried out was home isolation 44.3%. Television was consulted 88.7% and alert 74.5% the most prevalent feeling, while 7% said they felt discriminated. The logistic regression analysis revealed that having SpA, taking leflunomide, feeling discriminated, and greater perception of risk were associated with having COVID-19. The bimodal results for each variable are presented to indicate the change on action taken per group.

Conclusion: The risk perception in RD patients was very high. 5% had COVID-19. The impact on disease activity, physical/mental health was greater in patients with COVID-19. Discrimination of RD and COVID-19 patients is an important phenomenon.

PANLAR2021-ABS-1413

NUTRITIONAL ASSESSMENT IN MEXICAN PREGNANT WOMEN WITH AUTOIMMUNE RHEUMATIC DISEASE

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Objectives: Nutritional disorders are associated with adverse fetal and obstetric outcomes.[1] Women with autoimmune rheumatological diseases (ARDs) are at an increased risk of adverse obstetric and perinatal outcomes (examples of these are gestational diabetes, hypertensive problems such as preeclampsia, anemia, overweight and obesity after pregnancy, affecting fertility, as well as adverse outcomes in the fetus such as congenital defects, small for gestational age, low birth weight, miscarriage).[2] There is an increased requirement during pregnancy for thiamin, riboflavin, folate and vitamins A, C and D, as well as energy and protein. The supplementation of folic acid and iron is important because they have been shown to help the neurological development of the fetus as well as to avoid hematological problems.[3] The aim of this study is to describe the frequency of nutritional disorders and micronutrients intake in pregnant women with ARDs

Methods: Observational, cross-sectional and descriptive study. Pregnant patients with ARDs were evaluated by certified clinical nutritionist from February 2019 – August 2020. Anthropometric measurements were taken, and body mass index (BMI) was calculated. 24-hour reminder was used for the dietary evaluation. The calories, macronutrients and micronutrients intake were classified according to the Dietary Reference Intake (DRI). The dietary evaluation was carried out using the Nutrimind© software.

Results: We included 34 patients. Nutrient intake according to the nutritional status and demographic information are shown in Table 1. The mean age was 27.08 ± 6.19 years, and the most common ARD was rheumatoid arthritis (n = 13, 38.23%). The most frequent nutritional abnormalities were gestational diabetes mellitus (n = 4, 11.76%). Gestational BMI was classified as low weight in 3 (8.82%), normal in 14 (41.18%), overweight in 11 (32.35%) and obesity in 6 (17.64%) patients. Intake of micronutrients was deficient in most patients including iron in 94%, folic acid in 79%, zinc in 77% and calcium in 67% (Table 2).

Age, years (mean ± SD)	27.57 ± 6.74
Pregnancy weeks (mean± SD)	21.49 ± 10.65
Diagnosis n(%)	
Rheumatoid arthritis	13 (37.14)
Systemic lupus erythematosus	6 (17.14)
Antiphospholipid syndrome	6 (17.14)
Juvenile idiopathic arthritis	4 (11.42)
Others	6 (17.14)
Height, m (mean ± SD)	1.55 ± 0.07
Pre-pregnancy weight, kg (mean ± SD)	61.79 ± 15.95
Pregnancy weight, kg (mean ± SD)	65.5 ± 13.78
Pre-pregnancy BMI kg/m² (mean ± SD)	25.57 ± 5.51
Pregnancy BMI, kg/m² (mean± SD)	27.84 ± 6.08

Table 1. Characteristics of the patients. DS: Standard deviation, BMI: Body mass index. Others: Undifferentiated connective tissue disease, fibromyalgia, dermatomyositis, systemic sclerosis, Sjögren's syndrome, m: Meters, kg: Kilogram

Conclusion: A high prevalence of weight disorders was present in our sample of pregnant women with ARDs. Most patients had a lower micronutrient intake than the recommended by international guidelines. Pre-conceptional nutritional assessment may help detect high-risk patients.

Micronutrient	Normal n(%)	Deficit n(%)
Iron	2(5.7)	33(94.3)
Folic Acid	7(20)	28(80)
Zinc	8(22.9)	27(77.1)
Calcium	11(31.4)	24(68.6)

Table 1. *Micronutrient intake.*

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PANLAR2021-ABS-1075

ANTIPHOSPHOLIPID ANTIBODIES IN PATIENTS WITH COVID-19: TRUTH OF MYTH?

Cristiana S. Santos.

Objectives: To evaluate the presence of antiphospholipid (aPL antibodies), including lupus anticoagulant (LAC), anticardiolipin (aCL) (IgG, IgM), antiβ2glycoprtein1 (aβ2GP1) (IgG, IgM) in a cohort of patients with SARS-CoV-2, study clinical associations and discuss the relevance.

Methods: We performed a single center, observational cohort study between March 15th and September 15th 2020. The data from all patients who had tested positive for COVID-19 and had presented with thromboembolic complications were collected in a prospectively maintained database and compared to the data from patients without thromboembolic complications. Both groups were tested for LAC, aCL (IgG and IgM) and aβ2GP1 (IgG, IgM) at admission and confirmed after a three-month period. Age, sex, comorbidities, laboratory tests (hemogram, creatine phosphokinase, D-dimer, CRP, ferritin, fibrinogen, coagulation times PT and APTT, type of thromboembolic event, mean time of hospitalization and outcome) were examined.

Results: Patients with thrombosis were older (64.8 (IQR 36-83) vs 60.4 (43-79), p = 0.04)), more likely to have diabetes (9(50%) vs 2 (12.5%), p = 0.03), dyslipidemia (12 (66%) vs 5 (36%), p = 0.04), higher levels of D- dimer (3797 (IQR 6716407) vs 480 (362-944), p = 0.03), serum lactate dehydrogenase (451.3 (IQR 286.3-637.5) vs 277.7 (205.8-317.5), p = 0.02) and a higher mean hospitalization time (9 (6-11) vs 5.7 (2.5-9.5), p = 0.04). 6 out of 18 patients with thrombotic complications were negative for all criteria aPL, 10 patients had at least one aPL positive, 8 of which were LAC positive. Two patients with negative LAC were single positive for aCL IgG. 2 out of 16 patients without thrombotic complications were positive for LAC, and aCL and 1 were positive for LAC alone. aPL was repeated in 13 patients that were positive during the first period of testing. 6 out of 13 patients were LAC negative on the second occasion. Out of the 10 with positive aPL and thrombotic complications during the first period of testing, 1 was triple positive for LAC, aCL and aβ2GPI and another was positive for LAC and aCL. We found no differences between both groups in aPL positivity, aTTP and TP times, fibrinogen, lymphocytes, C-reactive protein, serum creatine, serum ferritin and procalcitonin.

Conclusion: Our study suggests aPL is mostly transient and most likely associated with COVID-19 infection. aPL is not associated with thrombotic complications. Further studies are required to determine the influence of aPL in thrombotic COVID-19 patients.

PANLAR2021-ABS-1435

COST EFFECTIVENESS OF MOFETIL MYCOPHENOLATE COMPARED WITH CYCLOPHOSPHAMIDE FOR THE TREATMENT OF SYSTEMIC SCLEROSIS IN PATIENTS WITH DIFFUSE INTERSTITIAL PULMONARY DISEASE IN COLOMBIA

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Objectives: Systemic Sclerosis (SS) is a potentially fatal autoimmune disease, with great impact on functional capacity, quality of life and increased mortality from pulmonary hypertension, pulmonary interstitial involvement, with restricted therapeutic options, serious adverse events. The aim of this study is to establish the cost-effectiveness ratio of mycophenolate mofetil compared to cyclophosphamide, for the management of diffuse interstitial pulmonary involvement in diffuse systemic sclerosis, with a health system perspective.

Methods: Systematic review of the literature and identification of clinical trials up to 2020. A decision tree model was constructed to determine the quality-adjusted life years of the two strategies. The time horizon encompasses the maximum drug induction period (12 months). The costs of treatment and management of adverse events were estimated using databases and official rates in Colombia. The results were tested using sensitivity analysis.

Results: Mycophenolate compared to cyclophosphamide, is cost effective since there was an improvement in units of effectiveness and utility. $ 761,453 USD is invested for each unit of effectiveness measured by the % change in FVC, or $ 828,052 USD for each QALY. When the Monte Carlo simulation was carried out with 10,000 patients, 86% of the iterations fell in the lower right segment observed in the cost-effectiveness plane, which suggests that the mycophenolate mofetil alternative is dominant. When performing the sensitivity analysis, using the tornado chart, cyclophosphamide could only be dominant if its effectiveness improved by 76% or completely dominated and if the price of cyclophosphamide is greater than 1,197.4 USD. In general terms, a concordance between the deterministic and probabilistic models is presented, confirming the cost-effectiveness of mycophenolate mofetil.

Conclusion: As a conclusion to the present study, it is highlighted that the use of mycophenolate mofetil for the induction of pulmonary fibrosis related to systemic sclerosis is cost effective compared to cyclophosphamide.

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PANLAR2021-ABS-1114

EPIDEMIOLOGIC CHARACTERIZATION OF THE MAIN CAUSES OF RHEUMATOLOGIC MORBIDITY IN A PEDIATRIC COHORT IN THE STATE OF LARA, VENEZUELA

Jose Jimenez, María Guasamucaro, and Alejandra Asuajes.

Objectives: The pediatric rheumatic diseases are a diverse group of chronic illnesses that have in common the presence of chronic inflammation. They are considered potentially serious diseases and imply a significantly decreased quality of life of the child. The objective of the study was to characterize the five main causes of morbidity in the pediatric consultation of the Rheumatology Service of the Hospital Central Universitario Dr. "Antonio María Pineda". Barquisimeto, Lara state. Period between January 2007-December 2016.

Methods: An observational and descriptive research was carried out to epidemiologically characterize the five main causes of morbidity in the pediatric consultation of the Rheumatology Department of the Central University Hospital "Dr. Antonio Maria Pineda" of Barquisimeto, Lara, during the period between January 2007 and December 2016.

Results: In this study, the female gender predominated, and the age group was between 7 and 12 years of age. The first five causes of morbidity were, firstly, Juvenile Idiopathic Arthritis (JIA), followed by Systemic Lupus Erythematosus (SLE), Vasculitis, Inflammatory Myopathies and Scleroderma, respectively (Table 1). Regarding JIA, the prevalent subtype was polyarticular with a

negative rheumatoid factor (31%), followed by oligoarticular (23.2%). On the other hand, the highest percentage (50%) of vasculitis belonged to Henoch-Schönlein Purpura. In relation to Myopathies, Dermatomyositis was the most frequent subtype (81.8%), while Systemic Sclerosis was present in 55.6% of patients with Scleroderma.

Causes of morbidity	N	%
Juvenile Idiopathic Arthritis	**271**	**73.8**
Systemic Lupus Erythematosus	**43**	**11.7**
Vasculitis	**18**	**4.9**
Inflammatory Myopathy	**11**	**3.0**
Scleroderma	**9**	**2.5**
Antiphospholipid Syndrome	5	1.4
Autoimmune Hepatitis	4	1.1
Discoid Lupus Erythematosus	2	0.5
Villonodular Synovitis	1	0.3
Septic Arthritis	2	0.5
Polychondritis	1	0.3
Total	367	**100.0**

Conclusion: As reported in the literature, in our cohort, JIA was the most frequent diagnosis, followed by SLE, primary Vasculitis, Inflammatory Myopathies and Scleroderma

PANLAR2021-ABS-1318

ANISOCYTOSIS INDEX AS AN EARLY PREDICTOR OF HOSPITAL MORTALITY IN PATIENTS WITH COVID-19 PNEUMONIA FROM A LEVEL III HOSPITAL. LIMA PERÚ

Jorge Ravelo.

Objectives: To determine if laboratory tests predict mortality in patients with COVID-19 pneumonia upon admission to hospital. Secondary outcome: to evaluate if any laboratory parameter predicts longer hospitalization in patients with COVID-19 pneumonia

Methods: Case control study of COVID-19 pneumonia patients, admitted to the Peruvian Air Force Hospital from April 6th to June 27th, 2020. Patients were divided in two groups: recovered and deceased and their laboratory parameters entered into the statistical analysis. Cox regression was performed (95% CI, p value <0.05, as statistically significant). Bivariate analysis to compare the RDW means of recovered vs. deceased and multivariate analysis with binary logistic regression to evaluate the predictive value of RDW in relation to hospital mortality in our cohort. The statistical package Stata version 14.2 was used.

Results: 186 patients were included. The mean age of the recovered patients was 53.6 ± 16.4 years vs 75.9 ± 13.9 years in the deceased group (p < 0.0001) (Table 1). The mean value of RDW was 13.14% in recovered vs. 13.96% of deaths (p < 0.0005), associated with an Odds Ratio (OR) of 1.66 (CI: 1.58-1.74) adjusted for the model (Table 2).

Conclusion: The finding of a RDW ≥ 13% in patients with COVID-19 pneumonia was associated with higher mortality.

Tabla1. Características y comorbilidades en pacientes con Neumonía COVID 19

		Total (N:188)	Recuperados (n:147)	Fallecidos (n:41)	P
Edad (años)	Media (DS)	59.79 (17.48)	55.32 (15.64)	75.80 (14.15)	< 0.000 *
Genero	Femenino	81 (43.09 %)	64 (79.01 %)	17 (20.99 %)	0.813
	Masculino	107 (56.91 %)	83 (77.57 %)	24 (22.43 %)	
Hipertensión Arterial	No	145 (77.13 %)	119 (82.07 %)	26 (17.93 %)	0.018
	Si	43 (22.87%)	28 (65.12 %)	15 (34.88 %)	
Diabetes mellitus	No	158 (84.04 %)	124 (78.48 %)	34 (21.52 %)	0.825
	Si	30 (15.96 %)	23 (76.67 %)	7 (23.33)	
ERC	No	179 (95.21 %)	143 (79.89 %)	36 (20.11 %)	0.012
	Si	9 (4.79 %)	4 (44.44 %)	5 (55.56 %)	
Asma	No	183 (97.34 %)	145 (79.23 %)	38 (20.77 %)	0.036
	Si	5 (2.66 %)	2 (40 %)	3 (60 %)	
Obesidad	No	181 (96.28 %)	142 (78.45 %)	39 (21.55 %)	0.659
	Si	7 (3.72 %)	5 (71.43 %)	2 (28.57 %)	
Otras comorbilidades	No	133 (71.12 %)	114 (85.71 %)	19 (14.29 %)	< 0.000
	Si	54 (28.88 %)	32 (59.26 %)	22 (40.74 %)	
Leucocitos	Media (DS)	9.68 (4.44)	9.49 (4.52)	10.35 (4.13)	0.281*
Linfocitos	Media (DS)	1.44 (0.88)	1.59 (0.90)	0.90 (0.53)	< 0.000*
PCR	Media (DS)	94.04 (95.61)	82.34 (88.95)	136.48 (107.50)	0.001*
pO2	Media (DS)	83.73 (24.39)	83.94 (22.28)	82.98 (31.18)	0.827*
pCO2	Media (DS)	33.40 (5.06)	33.32 (4.96)	33.67 (5.47)	0.699*
Saturación de O2	Media (DS)	95.73 (8.74)	95.23 (5.10)	97.55 (16.09)	0.138*
Dias de hospitalización	Media (DS)	11.75 (9.04)	10.88 (7.08)	14.82 (13.59)	0.013*
TSS Score	Media (DS)	7.33 (3.50)	6.59 (3.03)	10.05 (3.80)	< 0.000**
RDW	Media (DS)	13.323 (1.284)	12.971 (1.081)	13.411(1.715)	0.003**

Tabla 2. Análisis multivariado mediante Regresión logística binaria para predecir mortalidad

	OR ajustado (Modelo 1)	p	IC 95%	OR ajustado (Modelo 2)	p	IC 95%
RDW ≥14	3.49	0.027	1.15-10.59	3.00	0.035	1.07 – 8.35
Edad	1.07	< 0.001	1.03-1.11	1.07	< 0.001	1.04– 1.11
Sexo	1.49	0.422	0.56-3.94	1.35	0.524	0.53-3.44
Leucocitos	1.05	0.388	0.93-1.17	---	---	---
Linfocitos	0.22	0.001	0.08-0.54	0.24	0.001	0.10 – 0.56
Proteina C Reactiva	0.99	0.970	0.99-1.00	---	---	---
pO_2	0.99	0.439	0.96-1.01	---	---	---
pCO_2	1.06	0.272	0.95-1.18	---	---	---
Saturación de O2	1.00	0.820	0.92-1.09	---	---	---

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PANLAR2021-ABS-1390

FEAR OF COVID-19 IN MEXICAN WOMEN WITH AUTOIMMUNE RHEUMATIC DISEASES

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Objectives: We aimed to describe the fear of COVID-19 scale in women with autoimmune rheumatic diseases (ARDs) from Mexico.

Methods: A cross-sectional study was conducted from September to November 2020 at the Pregnancy and Rheumatic Diseases Clinic from the University Hospital "Dr. Jose E. Gonzalez" in Monterrey, Mexico. Women with ARDs were invited to participate. The Fear of COVID-19 scale (FCV-19S) was applied. The instrument consists of seven items, each with a five-point Likert scale of options. The maximum possible total is 35 points, with cutoff point score of 16.5. The validated Spanish FCV-19S version was used. Also, sociodemographic data were collected from the medical charts.

Results: A total of 83 women were included: 46 were in childbearing age, 32 were postpartum women, 4 were pregnant and 1 was going through menopause. The most frequent diagnosis was rheumatoid arthritis in 41 (49.4%), followed by systemic lupus erythematosus 31 (37.3%), 8 (9.6%) with other diagnosis (Sjogren's syndrome 2, antiphospholipid syndrome 3, and dermatomyositis 2 and psoriatic arthritis 1 patient). The demographic variables are shown in Table 1. The mean level of fear was 18.09 points, which means the fear of COVID-19 screening was highly positive. Regarding the rheumatic diseases group, women in the category of Other diagnoses had a greater mean FCV-19S score (19.0), than patients with systemic lupus erythematosus (17.45) and rheumatoid arthritis (18.8). Also, in the reproductive status classification the postpartum women had the highest mean score (19.68). Only the group of Non diagnostic yet, had a score below the cutoff point.

Table 1. Sociodemographic data

	Women with rheumatic diseases n= 83	Fear of COVID-19 scores n= 83
Age, years, mean, (SD)	31.4 (7.6)	**Score, mean 18.09**
Occupation, n (%)		
Housewive	30 (36.1)	
Employee	38 (45.7)	
Student	8 (9.6)	
Other	7 (8.4)	
Education level, n (%)		
Primary School	5 (6)	
Middle school	23 (27.1)	
High School	34 (40.9)	
College	21 (25.3)	
Reproductive status, n (%)		
Childbearing age	46 (55.4)	17.32
Pregnancy	4 (3.3)	13.5
Postpartum	32 (38.5)	19.68
Menopause	1 (1.2)	21
Rheumatic diagnosis, n (%)		
Rheumatoid arthritis	41 (49.4)	18.8
Systemic lupus erythematosus	31 (37.3)	17.45
Others diagnosis		19.0
Sjogren's Syndrome	2 (2.4)	
Antiphospholipid Syndrome	3 (3.6)	
Dermatomyositis	2 (2.4)	
Psoriatic arthritis	1 (1.2)	
Non diagnostic yet	4 (4.8)	14.0

SD: Standard deviation

Conclusion: Postpartum women with ARDs had a higher FCV-19S score than women with a different reproductive status. Women with ARDs and especially postpartum women should receive psychological support and be screened for symptoms of depression and anxiety.

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PANLAR2021-ABS-1443

TOMOGRAPHIC SEVERITY SCORE (TSS) AS A PREDICTOR OF ADMISSION TO THE INTENSIVE CARE UNIT (UCI) IN PATIENTS WITH COVID-19 PNEUMONIA IN A POPULATION GROUP FROM THE MOST POPULATED DISTRICT OF PERU: SAN JUAN DE LURIGANCHO LIMA, PERÚ

Jorge Ravelo.

Objectives: To determine if the Tomographic Severity Score (TSS) of patients with COVID-19 pneumonia at admission, as well as some laboratory tests or clinical features predict ICU admission in this group of patients.

Methods: Case-control study, which included patients with a clinical diagnosis of SARS-CoV2 virus infection, performed by reverse transcriptase polymerase chain reaction (RT-PCR), reactive serological test (IgM / IgG) and / or chest tomography (CT) without contrast. Two radiologists (blind evaluators) described the tomographic findings. The data were taken from electronic medical records (EHR). The most important variables for the prediction of ICU admission were analyzed: TSS, age, BMI, obesity, ferritin, D-Dimer, O2 saturation, PO2, lymphopenia, C-reactive protein. The prediction of admission to the ICU was performed using binary logistic regression for an adjusted OR, which compared 2 analysis models with a 95% CI and a p value

Results: 168 participants were included. The mean age of the patients not admitted to the ICU was 44.89 (SD 10.9) years and of those admitted to the ICU 43.81 (SD 11) years (p: 0.669). The mean value of the TSS Score was 14 (SD 4.44) in ICU patients vs. 7.77 (SD 4.81) in Not admitted to ICU.

Conclusion: The TSS Score was useful in the initial diagnostic evaluation of COVID-19 pneumonia, in conjunction with markers such as D-Dimer, BMI and Age can predict a poor outcome in the short term. A TSS Score ≥ 8 in patients with COVID-19 pneumonia at hospital admission was a predictor of admission to the ICU in the patients studied.

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PANLAR2021-ABS-1325

EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH OVERLAP SYNDROME SYSTEMIC SCLEROSIS AND SYSTEMIC LUPUS ERYTHEMATOSUS IN AN AMBULATORY SERVICE

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Objectives: This work aims at obtaining clinical and epidemiological profile in patients with Overlap Syndrome (OS) of Systemic Sclerosis (SSc) / Systemic Lupus Erythematosus (SLE) from a single rheumatology outpatient clinic in Southern Brazil.

Methods: This is a medical records review descriptive study. Demographic, clinical, serology and image data were obtained. To be included patients had to fulfill EULAR/ACR classification criteria for both: SLE and SSc.

Results: Nineteen patients were identified in records from thirty years. Epidemiological profile showed that 84.2% of them were female; with median age of 46 years; 50% of them were Caucasians, 73.7% were non-smokers and the limited form of SSc was present in 47% of them. The prevalence of Raynaud's phenomena was 100 %, pitting scars in 57.9%, gastroesophageal dysmotility in 84.2%; pulmonary hypertension in 57.9% pulmonary fibrosis in 52.6%. Photosensitivity was found in 84.2%, oral ulcers in 52.6%, skin vasculitis in 42.1%, glomerulonephritis in 15.8%. Arthralgias were found in 100% but arthritis in 68.4%. Sicca symptoms were identified in 63.2% but the diagnosis of secondary Sjogren in only 31.6%. No differences were found in the clinical profile according to gender (all p = ns). Smoking also did not affect the clinical profile except for discoid lesions and pleuritis that were less common in smokers (p = 0.01 and 0.03 respectively). From the serological point of view: antinuclear antibodies (ANAs) were present in 100% of them; the coarse speckled pattern was the most commonly found (36.8%). Anti-Sm was found in 57.8%, anti-dsDNA in 36.8%, anti RNP in 68,4, anti-Ro in 57.8% and anti-La in 42.1%, anti-centromere in 30% and anti -Scl-70 in 17.6%.

Conclusion: The most common patient with overlap SSc-SLE in this service was a middle aged, Caucasian and non-smoker woman. The clinical findings more common were Raynaud's phenomenon, arthralgias, gastroesophageal dysmotility and skin lesions. No differences in the clinical profile were noted according to gender. From the serological point of view all patients were positive for ANA: anti -RNP followed by anti-Sm were the most common autoantibodies found. No smoking was protective for serositis and for discoid lesions, as well as significant associations of anti-Scl-70 with discoid lupus, anti-La with Sjogren's Syndrome and anti-DNA with digital ulcers were found.

PANLAR2021-ABS-1152

IMPACT OF LOW INCOME AND BURNOUT RATES IN RHEUMATOLOGIST OF LATIN AMERICA

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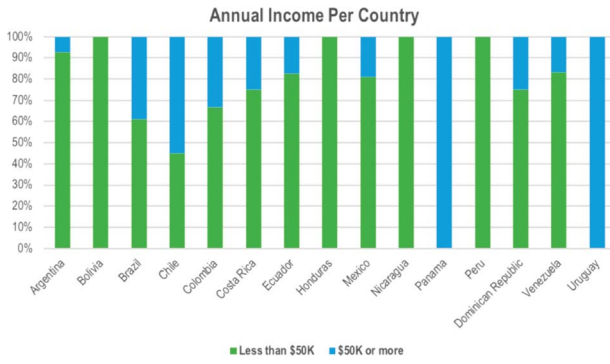
Objectives: In recent years, a great shortage of rheumatologists and an increase in patients who require their care in Latin America has been witnessed[1,2]. It increases the workload and administrative burden of the few available specialists, leading to a decrease in their efficiency and productivity and dissatisfaction with the low remuneration they receive[3].

Methods: Cross-sectional study done through a Google Form survey. Income was examined as an ordinal variable. We included variables related to clinical practice and activities done in a week. The Maslach Burnout Survey was used for personal accomplishment and a 7-point Likert scale for satisfaction. The statistical analysis was carried out using SPSS v.22.

Results: 290 rheumatologists were included, 61.7% women, from 15 countries, with a mean age of 47 ± 11 years. The majority worked in adult rheumatology (82.8%), carried out other activities apart from clinical practice (75.5%) and combined public and private practice (42.8%). 36.9% earned less than $ 25 K a year, 37.9% from $ 25 K to $ 50 K, 12.4% from $ 50 k to $ 75 k, 6.9% $ 75 k to $ 100 k, and 5.9% more than $ 100 k. In most countries, rheumatologists earned less than $ 50 K (figure 1). In the group that earned less than $ 50 K, there were more women (67.7% vs 43.8% $p < 0.001$), they were younger (46 ± 11 vs 52 ± 11 years $p < 0.001$) and they had been practicing rheumatology for fewer years (15 ± 11 vs 22 ± 13 $p < 0.001$). They had a lower score in personal accomplishment (36.5 ± 10 vs 40 ± 9 $p = 0.009$). Those who earned more than $ 50 k did more research (41.1% vs 28.6% $p = 0.047$), clinical trials (23.3% vs 9.7% $p = 0.003$) and teaching (67.1% vs 53.9% $p = 0.049$). They were more satisfied with their practice as rheumatologists (5.9 ± 1.2 vs 5.5 ± 1.3 $p = 0.014$) and with their income (5.1 ± 1.7 vs 3.5 ± 1.9 $p = 0.000$) and had more than 4 weeks of vacation per year (34.2% vs 17.1% $p = 0.001$). There were no differences by workplace, type of clinical practice or number of hours worked per week. There was a higher prevalence of comorbidities in the group that earned more than $ 50 K (63% vs 41% $p = 0.001$).



Conclusion: The majority of rheumatologists who participated in this study were women, they tend to be younger, feel less professionally fulfilled and have a lower salary in relation to men. In contrast, those with higher salaries were more satisfied with their medical practice.

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PANLAR2021-ABS-1170

EPIDEMIOLOGY AND OUTCOMES OF PATIENTS WITH RHEUMATIC DISEASES AND SARS-COV-2 INFECTION: DATA FROM THE ARGENTINEAN SAR-COVID REGISTRY

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Objectives: The aim of this study was to evaluate clinical characteristics and outcomes of SARS-CoV-2 infection in patients with rheumatic diseases from the National Registry of Patients with Rheumatic Diseases and COVID-19 (SAR-COVID).

Methods: SAR-COVID is a national, observational registry, in which patients, ≥18 years of age, with a diagnosis of a rheumatic disease who had SARS-CoV-2 infection (PCR or positive serology) were consecutively included between August 13, 2020 and April 11, 2021. Sociodemographic data, comorbidities, underlying rheumatic disease and treatment, clinical characteristics, complications, laboratory and treatment of the SARS-CoV-2 infection were recorded. Clinical outcomes were hospitalization, invasive mechanical ventilation (IMV) requirements and death.

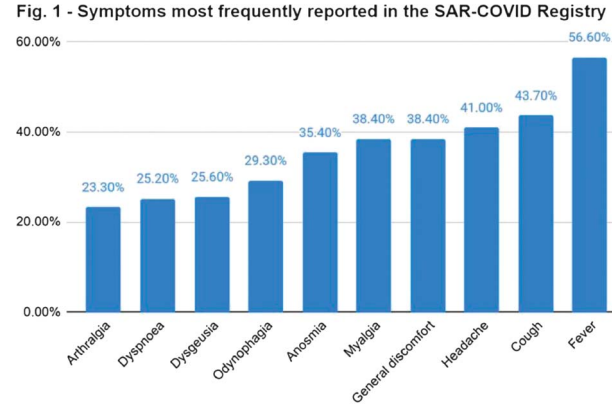
Statistical analysis: Descriptive analysis. Chi^2 or Fisher tests and Student's t test or Mann-Whitney U test or ANOVA were used, as appropriate. Multiple logistic regression was performed.

Results: A total of 1004 patients were included, 80.9% were female, with a mean age of 49.4 years (SD 59.4).

Comorbidities were reported in half of them (51.4%). The most frequent rheumatic diseases included were rheumatoid arthritis (41.8%) and systemic lupus erythematosus (16.3%). At the time of the infection, most of them were in remission or in minimal/low disease activity (74.3%) and 74.9% were receiving immunosuppressive treatment and 37.2% glucocorticoids.

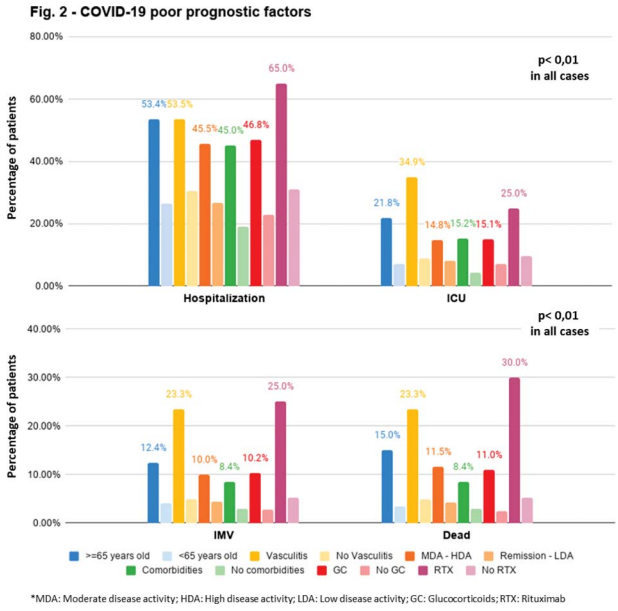
Symptoms were present in 95.7% of the patients (Figure 1). During infection, 34.8% received some pharmacological treatment, azithromycin (20.9%) and dexamethasone (20.6%) were the most frequently used. One third (31.7%) of the patients were hospitalized, 10.1% were admitted to the ICU, 5.6% needed

Fig. 1 - Symptoms most frequently reported in the SAR-COVID Registry



IMV and 5.6% died due to COVID-19. Complications were reported in 11.4%, being acute respiratory distress syndrome the most frequent (8.1%).

Patients over 65 years of age were more frequently hospitalized, admitted to the ICU, needed IMV and died due to COVID-19. Similar results were seen in patients with vasculitis, those with moderate/high disease activity and with comorbidities. Patients treated with glucocorticoids or rituximab presented worse outcomes (Figure 2).



Conclusion: In this cohort of patients with a wide distribution of rheumatic diseases, we have found clinical characteristics similar to those reported in other international cohorts. Older patients, those with comorbidities, with vasculitis and with higher disease activity, as well as those treated with glucocorticoids and rituximab showed worse COVID-19 outcomes.

PANLAR2021-ABS-1147

ASSOCIATION BETWEEN SERUM URIC ACID AND TRIGLYCERIDE/HDL-CHOLESTEROL RATIO IN BRAZILIAN YOUNG ADULTS

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Objectives: Gout has been associated with increased risk of cardiovascular morbidity and mortality in previous studies, but causal roles remain unclear. The triglyceride/high-density lipoprotein cholesterol (TG/HDL-C) ratio can be an efficient indicator of cardiovascular risk. The aim of this study was to evaluate the association between serum uric acid (SUA) and TG/HDL-C ratio in 22-year-old individuals.

Methods: At the 22-year follow-up of the 1993 Pelotas (Brazil) birth cohort, interviews and clinical measurements were performed and non-fasting blood samples were drawn from the participants. SUA, HDL-C and triglycerides were evaluated by enzymatic-colorimetric assay. The covariables used were body mass index, systolic and diastolic blood pressure, fasting period, alcohol use disorder, smoking status and physical inactivity. Variables are shown as mean (±SD) or median (25-75 IQR). Sex-stratified linear regressions have been performed using STATA 13 and $p < 0.05$ was considered statistically significant. The differences between sexes were evaluated by Student's t test, all of which were statistically significant.

Results: The sample was composed by 1657 (46.3%) men and 1921 (53.7%) women 22 years of age. Mean (±SD) SUA (mg/dL) was higher in men than in women (5.2 ± 1.2 vs. 3.9 ± 1.1). Median (25-75 IQR) triglycerides (mg/dL) was higher in women [87 (63; 117) vs. 85 (62; 120)]; the same was observed for mean (±SD) HDL-C (mg/dL) [54.7 ± 13.3 vs 46.5 ± 10.8]. Exponential mean TG/HDL-C ratio was 1.94 for men and 1.64 for women. The adjusted linear regression coefficient (95%CI) between SUA and logTG/HDL-C ratio was 0.20 (0.11; 0.30) for men and 0.21 (0.11; 0.30) for women; both with $p < 0.001$.

Conclusion: In our study, SUA was positively associated to TG/HDL-C ratio, even when adjusted for potential confounders. This finding reinforces that uric acid is associated with increased cardiovascular risk since early adult age.

PANLAR2021-ABS-1393

PERCEIVED STRESS AND SYMPTOMS OF POSTPARTUM DEPRESSION IN MEXICAN WOMEN WITH AUTOIMMUNE RHEUMATIC DISEASES

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Objectives: To describe the level of perceived stress and the coping strategies and their relationship to PPD in women with ARDs.

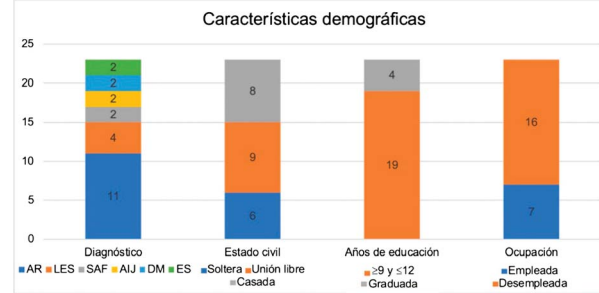
Methods: Cross-sectional study. Postpartum patients from the pregnancy and rheumatic diseases clinic from the University Hospital in Mexico were surveyed via telephone with the Edinburgh Postnatal Depression Scale (EPDS), PSS-10 and Brief COPE. We employed χ^2 and Spearman's correlation coefficient to evaluate associations.

Results: Twenty-three patients were included. Demographic characteristics and results are shown in Figure 1 and Table 1 respectively. No statistically significant association was found between mild or moderate/severe categories of the PSS-10 and the EPDS no risk or possible/probable risk categories ($p = 0.10$). The 82.6% of patients had not risk of developing PPD. The total score of PSS-10 and EPDS presented a strong positive correlation ($r = 0.784$, $p = <0.01$). In the Brief COPE, 68.4% of patients had adaptive coping strategies while 31.5% had dysfunctional ones, acceptance was the most employed.

Conclusion: We found a strong positive correlation between the PSS-10 and EPDS scales indicating a relationship between stress and depression. Regarding

RESULTS AND CATEGORIZATION OF SCALES				
Scales	**RA, n=11**	**SLE, n=4**	**Others, n=8**	**Total, n=23**
PSS-10				
Total score, mean ± SD	16.18 ± 6.95	11 ± 4.69	9.37 ± 4.5	12.91 ± 6.48
Mild, n (%)	5 (45.45)	3 (75)	6 (75)	14 (60.87)
Moderate, n (%)	4 (36.36)	1 (25)	2 (25)	7 (30.43)
Severe, n (%)	2 (18.18)	0	0	2 (8.7)
EPDS				
Total score, mean ± SD	7.27 ± 5.88	3.25 ± 3.4	3.62 ± 3.7	5.3 ± 5.04
No Risk, n (%)	7 (63.63)	4 (100)	8 (100)	19 (82.61)
Possible Risk, n (%)	1 (9.1)	0	0	1 (4.35)
Probable Risk, n (%)	3 (27.27)	0	0	3 (13.04)
Brief COPE				
Total score, mean ± SD	3.18 ± 2.22	2.75 ± 1.7	3.62 ± 2.13	3.26 ± 2.04
Adaptative Strategies, n (%)	23 (30.26)	7 (9.21)	22 (28.95)	52 (68.42)
Dysfunctional Strategies, n (%)	12 (15.8)	4 (5.26)	8 (10.52)	24 (31.58)

Table 2. PSS-10: Perceived Stress Scale. EPDS: Edinburgh Postnatal Depression Scale. Brief COPE: Brief Coping Orientation to Problems Experienced. RA: Rheumatoid arthritis. SLE: Systemic lupus erythematosus. Others: Antiphospholipid syndrome, juvenile idiopathic arthritis, dermatomyositis, systemic sclerosis. SD: Standard deviation.



Gráfica 1. Edad, años, media ±DE: 26.26 ±5.78. DE: Desviación estándar. AR: Artritis reumatoide. LES: Lupus eritematoso sistémico. SAF: Síndrome antifosfolípido. AIJ: Artritis idiopática juvenil. DM: Dermatomiositis. ES: Esclerosis sistémica.

coping strategies, almost a third of patients had dysfunctional ones. Postpartum women with ARDs may benefit from early screening.

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PANLAR2021-ABS-1120

IMPACT OF COVID-19 PANDEMIC IN ECUADORIAN PATIENTS WITH RHEUMATIC DISEASES

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Objectives: Ecuador has been affected by the COVID-19 pandemic since March 2020. The impact of the infection in rheumatic patients is still being examined. The purpose of the study was to describe the clinical demographics and impact of COVID19 in of Ecuadorian patients with rheumatic conditions.
Methods: Rheumatologists practicing in Ecuador reported the data from June 2020 to February 2021, demographic data, clinical status, rheumatic treatment and COVID-19 directed therapy was retrieved. Data were analyzed in SPSS v22.
Results: A total of 114 patients with COVID-19 and primary diagnosis of rheumatic disorders were registered, 78% female and 22% male with a mean age of 50.5 ± 16.6 [23-83]. Most patients were considered as Mestizo/mixed race 88% [100]. Primary diagnosis included rheumatoid arthritis 42%, osteoarthritis 19%, systemic lupus erythematous 15%, fibromyalgia 8%, ankylosing spondylitis 4%, other seronegative disorders 3%, gout 3%, Sjögren syndrome 2%, polymyalgia rheumatica 2%, dermatomyositis and psoriatic arthritis 1%. Medications for rheumatic disorders included methotrexate 33%, glucocorticoids 40%, hydroxychloroquine 20%, biologics 8%, anti-TNF 9%, tofacitinib 2%, among others. 83% of the sample were in remission or controlled disease before getting infected by COVID-19. COVID-19 symptoms included fever 74%, chills 28%, cough 55%, sore throat 46%, myalgia 47%, anosmia 41%, headache 39%, arthralgia 38%, fatigue 35%, dyspnea 6%, nausea and vomiting 8%, diarrhea 35%, abdominal pain 10%, ageusia 31%, skin lesions 5%. 92% spent the clinical course at home and 9% hospitalized with a mean of days of stay of 18.7 ± 5.4 [4-60]. 45% of the patients required treatment adjustments for the rheumatic conditions. 82% have a resolved clinical course of the infection. 40% of the patients with controlled/remission RA experienced a flare after COVID-19 infection and SLE patients flared in 19%. 3% of the patients died from COVID-19 infection.
Conclusion: This is the first study of rheumatic patients with history of COVID-19 infection in Ecuador. The majority (86%) of the patients were in remission before the infection. COVID-19 triggered flares in 40% of RA patients and on 19% of SLE patients with well controlled disease before viral infection. It is still unknown the long-term effects of COVID-19 in rheumatic patients; however, it is evident that it has a negative impact on disease activity.

PANLAR2021-ABS-1337

VIOLENCE IN MEXICAN WOMEN WITH AUTOIMMUNE RHEUMATIC DISEASES

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Objectives: The aim of this study is to determine the frequency of domestic violence in women with autoimmune rheumatic diseases (ARD) and to compare with childbearing age women with ARD.
Methods: Women with rheumatic disease evaluated at the Pregnancy and Rheumatic Diseases Clinic from the University Hospital "Dr. José E. González" in Monterrey, México from August to October 2020 were invited to participate. The Spanish validated version of the Hurt, Insulted, Threatened with Harm, Screamed scale (HITS) was applied via telephonic interview. The HITS scale evaluates in 4 questions the presence and frequency of violence by their intimate partners in the last 12 months. A score ≥ 10 points is considered as positive for violence.
Results: A total of 85 women were included. The mean age was 30.7 years. Most of them were employees (45.9) with 8-10 years of education and the most frequent marital status was formalized union (married) in 38 (44.7). The HITS scale was positive in the pregnant-postpartum group in 7 women (8.23). The reproductive status of those patients who were positive for violence was diverse, 2 were childbearing age, 2 were married, 2 were pregnant and 3 were postpartum women. Two of them had been victims of sexual assault and five reported physical/verbal violence. These data are presented in Table 1.

Table 1. Sociodemographic characteristics and scale results

	n=85
Age, years, mean	30.68
Occupation, n (%)	
Housewive	29 (34.1)
Employee	39 (45.9)
Student	9 (10.6)
Other	8 (9.4)
Education years, n (%)	
Less than 7 years	5 (5.9)
8 – 10 years	24 (28.2)
11 – 13 years	34 (40)
More than 13 years	22 (25.9)
Marital status, n (%)	
Common-law marriage	15 (17.6)
Married	38 (44.7)
Single	30 (35.3)
Divorce	2 (2.4)
Reproductive status, n (%)	
Childbearing age	46 (54.1)
Pregnancy	10 (11.8)
Postpartum	28 (32.9)
Menopause	1 (1.2)
Diagnosis, n (%)	
Rheumatoid arthritis	43 (50.6)
Systemic lupus erythematosus	25 (29.4)
Dermatomyositis	4 (4.7)
Non diagnostic yet	4 (4.7)
Antiphospholipid syndrome	3 (3.5)
Sjogren's syndrome	2 (2.4)
Juvenile idiopathic arthritis	2 (2.4)
Others*	2 (2.4)
Results of the HITS scale	
Total, mean	7.76 (±1.9)
Score per ranges, n (%)	
0 – 9 points	78 (91.76)
10 – 20 points	7 (8.23)

*Others includes: Psoriatic arthritis (1), Scleroderma (1).

Conclusion: 8.23% of our sample had suffered from domestic violence by their intimate partners in the preceding year. Screening for domestic violence followed by counseling and early referral are necessary to mitigate the physical and psychological consequences of domestic violence.

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PANLAR2021-ABS-1193

TENOSYNOVITIS DETECTED BY POWER DOPPLER ULTRASOUND: A DIFFERENTIAL CHARACTERISTIC OF PATIENTS WITH SERONEGATIVE RHEUMATOID ARTHRITIS

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Objectives: It is widely known that there are differences between seropositive and seronegative RA, but their sonographic differences have not been explored. The aim of this study was to estimate the frequency of rheumatoid arthritis (RA) in a cohort of patients who consulted for polyarthralgia, including arthralgia of the hands, and to identify differential characteristics between patients with seropositive and seronegative RA.

Methods: Longitudinal cohort study, which included patients older than 18 who were admitted for polyarthralgia to the ¨Reuma-check¨ program (2017 -2020). In this program, in the first visit (baseline) was performed: laboratory tests (including acute phase reactants, RF and anti-CCP), X-ray films, ultrasound of hands with power Doppler technique (22 joints: carpus, MCFs and IFPs in the form of bilateral and 20 tendons: 6 carpal extensor compartments and flexor tendons of 2nd to 5th fingers bilaterally) and interview (sociodemographic, clinical and clinimetrics). Each evaluator (laboratory, imaging and clinical) did not know the data of the other studies carried out. In subsequent visits (only patients who completed at least 2 visits were included), the results were assessed and a definitive diagnosis of RA was established according to the ACR/EULAR 2010 classification criteria. Seronegative RA was considered when patients were negative for both, RF and anti-CCP. Statistical analysis: descriptive statistics, Chi square test, Fisher's exact test, Student's t-test and Mann Whitney were performed.

Results: A total of 746 (74.4% female, mean age 53.6 (SD: 14.5) years) patients with polyarthralgia were included, of which 128 (17.1%, 95% CI: 14.6-20) ended with a final diagnosis of RA (Table 1). Of these 128 patients, 87 (67.9%) were seropositive, while 41 (32%) were seronegative. Table 2 shows a comparison of the different characteristics between patients with seropositive and seronegative. The only characteristic that showed significant differences was the presence of tenosynovitis detected by ultrasound with a positive power Doppler signal, 13.7% of the patients with seropositive RA vs 41.6% of the patients with seronegative RA (p = 0.0028).

Conclusion: The frequency of RA in our cohort of patients with polyarthralgia was 17.1% and the only differential characteristic of patients with seronegative RA in comparison with those with seropositive RA was the higher proportion of tenosynovitis detected by ultrasound with a positive power Doppler signal

	Rheumatoid Arthritis n: 128
Age in years, mean (SD)	56.6 (14.2)
Female gender, n (%)	90 (70.3)
Smoking, n (%)	54 (42.1)
Global VAS of the patient (0-100), mean (SD)	55.7 (18.1)
Number of tender joints (28), mean (SD)	5.3 (3.2)
Number of swollen joints (28), mean (SD)	1.9 (2.7)
CDAI, mean (SD)	17.7 (8)
DAS28-ERS, mean (DS)	4.2 (1.1)
HAQ, mean (DS)	0.8 (0.4)
FR, n (%)	83 (64.8)
ACPA, n (%)	51 (39.8)
ERS, mean (DS)	29.8 (24.7)
CRP, mean (SD)	9.7 (19.8)
Erosions by radiography, n (%)	23 (17.9)
Ultrasound tenosynovitis with positive power Doppler signal, n (%)	21 (16.4)
Ultrasound synovitis with positive power Doppler signal, n (%)	37 (28.9)

	Seropositive RA, n: 87	Seronegative RA, n: 41	p
Age in years, mean (SD)	56.4 (13.7)	57 (15.5)	0.84
Female sex, (%)	70.1	70.7	0.94
Smoking, (%)	54.4	44	0.36
Global VAS of the patient (0-100), mean (SD)	54.9 (17.4)	58.7 (21.2)	0.54
Number of tender joints (28), mean (SD)	5 (3.3)	6.3 (2.9)	0.08
Number of swollen joints (28), mean (SD)	1.9 (2.9)	2.2 (2.1)	0.65
CDAI, mean (SD)	17.1 (8.3)	19.7 (6.8)	0.16
DAS28-ERS, mean (DS)	4.1 (1.1)	4.5 (1.1)	0.16
HAQ, mean (DS)	0.8 (0.4)	0.9 (0.4)	0.23
ERS, mean (DS)	30.8 (25)	26.3 (23.6)	0.41
CRP, mean (SD)	9.9 (21)	8.9 (15.5)	0.81
Erosions by radiography, (%)	22.7	20	0.77
Ultrasound tenosynovitis with positive power Doppler signal, (%)	13.7	41.6	0.0028
Ultrasound synovitis with positive power Doppler signal, (%)	34.9	32	0.78

PANLAR2021-ABS-1227

THE USE OF ULTRASOUND AS AN EXTENSION OF THE PHYSICAL EXAMINATION IN A RHEUMATOLOGY OUTPATIENT CLINIC. FIRST RESULTS

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Objectives: To describe the use of ultrasound as an extension of the physical examination in a Rheumatology Outpatient Clinic.

Methods: Descriptive and observational study, in patients with rheumatic disease who were evaluated at the Rheumatology Outpatient Clinic for the first

Table 1: Demographic and clinical characteristics of the patients

Demographic and clinical variables	*n = 65*	*%*
Age	52,2	100
Female	48	73,8
Body mass index (Kg/m2)	28,5	100
Diagnostics		
- Rheumatoid arthritis	22	33,8
- Arthralgia with suspected arthritis	9	14,0
- Gout	7	10,7
- Soft tissue rheumatism	7	10,7
- Systemic lupus erythematosus	6	9,2
- Osteoarthritis	5	7,5
- Fibromyalgia	3	4,7
- Systemic sclerosis	2	3,1
- Sjogren's syndrome	2	3,1
- Calcium pyrophosphate crystal deposit disease	2	3,1
Treatment		
- Glucocorticoids	33	50,7
- Disease Modifying Antirheumatic Drugs	28	43,1
- Non-steroidal anti-inflammatory drugs	12	18,5
- Colchicine	9	14,0
- Echo-guided infiltration	5	7,6
- Paracetamol / Tramadol	5	7,6
- Symptomatic Slow Action Drugs for Osteoarthritis	4	6,1
- Pregabalin	3	4,7

time, where a musculoskeletal or systemic ultrasound was performed, according to the reason for consultation, during the first trimester of 2021. We investigated the reason for the ultrasound study, the anatomical region examined, and the main findings.
Results: Sixty-five patients were included; the carpal, hand, elbow, shoulder, knee, ankle and foot joints as well as the lungs and salivary glands were assessed according to the reason for consultation. The reason for the most frequent ultrasound study was to render a diagnosis in 38 patients (58.5%); the carpus and the hand were the regions most evaluated in 40 patients (61.5%) and the main ultrasound finding was polyarticular proliferative synovitis without power Doppler activity in 16 patients (24,6%). These data are presented in Tables 1 and 2.
Conclusion: The ultrasonographic exams were used more frequently in patients

Table 2: Ultrasound variables evaluated

Ultrasound variables	n = 65	%
Reason for the study		
- Diagnosis	38	58,5
- Monitoring	22	33,8
- Invasive procedure	5	7,7
Examined anatomical region		
- Carpus and hand	40	61,5
- Knee	9	14,0
- Elbow	4	6,1
- Shoulder	4	6,1
- Ankle and foot	4	6,1
- Lung	2	3,1
- Salivary gland	2	3,1
Main findings		
- Polyarticular proliferative synovitis without power Doppler	16	24,6
- Mixed synovitis in large joints	15	23,2
- Polyarticular proliferative synovitis with power Doppler	9	14,0
- Elementary lesions of gout	7	10,7
- Tenosynovitis, Tendinopathy, Enthesopathy, Bursitis	6	9,2
- Elementary lesions of osteoarthritis	5	7,6
- Elementary lesions of calcium pyrophosphate crystal deposit disease	2	3,1
- Glandular parenchyma with loss of normal homogeneity	2	3,1
- >5 B lines in the lung parenchyma	1	1,5
- <5 B lines in the lung parenchyma	1	1,5
- Normal ultrasound study	1	1,5

with rheumatoid arthritis and in patients with arthralgias with suspected arthritis. The main reasons for the study were as diagnostic support and for disease monitoring. The carpal and hands joints were the most frequently examined.

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PANLAR2021-ABS-1229

USE OF HAND THERMOGRAPHY, PATIENT GLOBAL HEALTH, AND ACUTE PHASE REACTANTS TO DEVELOP A NEW INDEX OF ACTIVITY IN RHEUMATOID ARTHRITIS: THERMO-DAS

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Objectives: DAS28, CDAI, and SDAI include variables obtained on physical examination, such as the tender joint count (TJC) and swollen joints count (SJC). In telematic consultations, it is not possible to determine them. Thermography is a fast and safe technique that measures heat using infrared cameras. Inflammation of the joints causes an increase in temperature and can be detected by thermography. Machine learning (ML) methods are very accurate in the automatic analysis of medical images. Our aim is to develop a new activity index (ThermoDAS) to evaluate patients with RA from the analysis of thermal images of hands with ML, patient global health (PGH) and acute phase reactants.
Methods: Multicenter observational study. Patients with RA, psoriatic arthritis (PsA), undifferentiated arthritis (UA), and arthritis secondary to other diseases (AS) were recruited at rheumatology consultations. Healthy participants were recruited from health care staff and companions. All participants had a hand thermography using a Flir One Pro camera or a Thermal Expert Q1 connected to the smartphone. Patients with AR, APs, UA, and SA had a hand ultrasound (h-US). The degree of inflammation (0-3) was measured on a grayscale (GS) and power doppler (PD). ML was used to quantify the inflammation of each thermal image using the h-US (GS + PD score) as the gold standard.

Patients with RA and thermography performed using the TE-Q1 camera were defined as a validation group. TJC, SJC, PGH, CPR and ESR were also collected in this group. ThermoDAS was developed using a linear combination of thermal and PGH. Additionally, analytical variables (CPR and ESR) for ThermoDAS-CPR and ThermoDAS-ESR are included. Accuracy was assessed using the Pearson correlation coefficient with the different activity indices: ThermoDAS vs CDAI, ThermoDAS-CPR vs DAS28-CPR, and ThermoDAS-ESR vs DAS28-ESR. The study was approved by the Ethics Committee.
Results: 521 participants were recruited (422 in the training group and 99 in the independent validation group). The correlation between ThermoDAS and CDAI is 0.83 ($p < 0.01$); the correlation of ThermoDAS-CPR and DAS28-CPR is 0.87 ($p < 0.01$) and that of ThermoDAS-ESR and DAS28-ESR is 0.88 ($p < 0.01$).
Conclusion: ThermoDAS has a strong correlation with other activity indices. ThermoDAS does not require physical examination, opening up an opportunity to develop tools to assess the activity of RA patients in telematic consultations.

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PANLAR2021-ABS-1118

SYNOVITIS AND ENTHESITIS IN YOUNG HEALTHY INDIVIDUALS: A PILOT STUDY

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Objectives: Our main goal is to describe the prevalence of synovitis and enthesitis in musculoskeletal asymptomatic individuals, and their associated conditions.
Methods: University students from 18 to 25 years-of age without any musculoskeletal symptom were included in this pilot version. All individuals underwent physical examination and data regarding DAS-28, MASES, LEI, and Beighton scores were collected. A trained rheumatologist then performed ultrasound examination using the PD-6 joints and MASEI protocols for synovitis and enthesitis detection, respectively. Based on common risk factors for chronic arthropathies, data regarding weight, nicotine dependence, alcohol use disorder, and global physical activity were also collected using well-validated scales: Fagernström scale, AUDIT, and GPAQ, respectively. A logistic regression model was created to assess each variable association with synovitis or enthesitis.
Results: A total of 38 students underwent ultrasound examination. 26 (68.4%) were males. The media age was 22 ± 1.31 years. Synovitis was present in 37 (97.4%) and the most commonly affected location was the right second metacarpophalangeal joint. Global enthesitis was detected in 20 (52.6%) and the most affected entheses were the upper and lower sternocostal. A third of the students were found to have minimal physical activity, and a quarter of them tested positive for alcohol use disorder. The latter was found to increase the risk for global enthesitis (OR: 6.54, 95% CI: 1.179- 36.325, $p = 0.032$).
Conclusion: Almost all young, musculoskeletally asymptomatic individuals were found to have mild synovitis, and more than half also had enthesitis detected by ultrasound. We found that alcohol use disorder increased the risk for subclinical enthesitis. According to these results, it would be crucial to examine a larger population to report the baseline ultrasound characteristics in asymptomatic young adults, and the associated conditions.

PANLAR2021-ABS-1441

THE "CRAZY PAVING" PATTERN: COVID PNEUMONIA OR DIFFUSE ALVEOLAR HEMORRHAGE?

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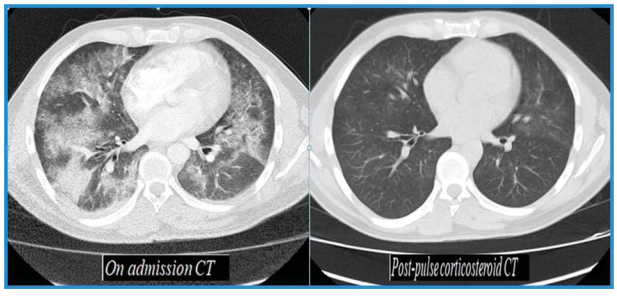
Objectives: To demonstrate the importance of correlating clinical data with tomographic pulmonary patterns.
Methods: Descriptive. Data taken from the patient's medical history.

Results: A 44-year-old man presented to the emergency room with fever, petechiae in the lower limbs, cough with hemoptoic expectoration, dyspnea and desaturation. On admission chest CT, an accentuation of the bilateral peri-hilar peri-bronchovascular interstitium was observed in "ground glass" associated with the presence of areas of centroacinar infiltrate that, in the first instance, were interpreted as suggestive of COVID-19 pneumonia.

The following day, the patient presented progression of his dyspnea, requiring oxygen therapy by high-flow cannula and the pulmonary infiltrates progressed in extension and attenuation of the diffuse ground glass, with diffuse septal thickening, a typical "crazy paving" pattern (Figure 1); his nasopharyngeal swab for rtPCR for SARS-CoV2 was negative. The patient was re-questioned, referring to a weight loss of more than 10 kg in the last 3 months. The febrile episodes were at evening, intermittent, of the same evolution time, associated with profuse sweating and infrapatellar paresthesias. Previous studies were collected and comparing them with the current ones, there was a marked drop in hematocrit, hypereosinophilia and elevation of acute phase reactants (Table 1).

Urine examination showed the presence of red blood cells >50/hpf, granular casts and 80% of acantocytes. Given the suspicion of a pulmonary renal syndrome (DAH + GN), pulses of Methylprednisolone are started, management in ICU and study of its vasculitic etiology. Already in the second corticosteroid pulse, the patient showed a clear improvement in clinical, laboratory and imaging parameters. A kidney biopsy was performed due to proteinuria of 1.2 g/day. The histopathological report reported: focal segmental necrotizing GN pauciimmune. With cANCA/AntiPR3 positivity, the condition is interpreted as AVV (EGPA). The patient is currently on the 2nd pulse of cyclophosphamide, with a good response to it, and a gradual decrease in glucocorticoids therapy.

	Hematocrit	Hemoglobin	Leukocytes	Eosinophils	CRP/ERS
Prior to admission	39.7	13	13600	2810	132/79
Prior to admission	30.5	9.9	14800	3030	155/82
On admission	26	8.3	14900	3427	286/--
Day 2 of admission	24	7.8	10500	2205	266/94
Post corticosteroids	31	9.8	13700	0	32/18
Hospital discharge	30	9.5	11800	0	<5/4



Conclusion: It seemed important to us to present this case because, given the current situation of the pandemic that we face, the frequently interstitial pattern in "ground glass" that COVID-19 pneumonia presents, misleads us from cases like this, a diffuse alveolar hemorrhage and with it a delay in the diagnostic suspicion and its imperative beginning in the treatment.

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PANLAR2021-ABS-1173

REMISSION AND LOW LUPUS DISEASE ACTIVITY (LLDAS) ARE ASSOCIATED WITH BETTER PATIENT-REPORTED OUTCOMES (PROS) IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Objectives: Remission and LLDAS have been proposed as the target in the treatment of SLE. However, the impact of these states in PROs has not been fully evaluated. The aim of this study is to determine the association between remission and LLDAS and PROs.

Methods: Patients from the Almenara Lupus Cohort were included. For these cross-sectional analyses, visits between November 2018 and July 2019 were included. Remission was defined as a SLEDAI-2 k (excluding serology) =0, physician global assessment (PGA) < 0.5, prednisone daily dose≤5 mg/d and immunosuppressive drugs on maintenance dose. LLDAS was defined as not on remission, a SLEDAI-2 k ≤ 4 with no activity in major organ systems, with no new features of lupus disease activity compared to the previous assessment, physician global assessment (PGA) ≤ 1.0, prednisone daily dose≤7.5 mg/d and immunosuppressive drugs on maintenance dose. All other patients were considered to be active. PROs included were disease activity measured by the patient using the LFA-REAL PRO (0-1200), fatigue using the FACIT F (0-52) and work productivity with the WPAI-SLE which includes four domains, absenteeism, presenteeism, work productivity impairment and activity impairment (0-100 each one). For LFA-REAL PRO and WPAI-SLE the lower the value the better the state, but, for FACIT is the opposite. Univariable and multivariable lineal regression models were performed, adjusting by possible confounders.

Results: Two hundred and twenty-six patients were included; 118 (52.2%) were on remission, 41 (18.1%) were on LLDAS and 67 (29.6%) were active. In the multivariable models, being on remission or LLDAS was associated with a lower LFA-REAL PRO (B = -128.6; p < 0.001 and B = -96.7; p = 0.006) and a higher FACIT-F (B = 5.5; p = 0.001 and B = 4.58; p = 0.030). Remission was associated with lower presenteeism (B = -12.8; p = 0.029), lower work productivity impairment (B = -13.6; p = 0.023) and activity impairment (B = -9.6; p = 0.034); LLDAS was not associated with any of these domains. LLDAS was associated with a higher absenteeism (B = 4.8; p = 0.047) but remission was not associated with it. These data are depicted in Table 1.

Table 1: Association between Remission and LLDAS with PROs. Multivariable analyses

	LFA-REAL PRO		FACIT		Absenteeism		Presenteeism		Work productivity impairment		Activity impairment	
	B (SE)	p value	B (SE)	p value	B (SE)	p value	B (SE)	p value	B (SE)	p value	B (SE)	p value
Active	Ref.		Ref.		Ref.		Ref.		Ref.		Ref.	
LLDAS	**-96.7 (35.2)**	**0.006**	**4.6 (2.1)**	**0.030**	**4.8 (2.4)**	**0.047**	-4.4 (6.8)	0.519	-1.6 (6.9)	0.815	-9.3 (5.9)	0.112
Remissionn	**-128.6 (27.4)**	**<0.001**	**5.5 (1.6)**	**0.001**	-2.0 (2.1)	0.349	**-12.8 (5.9)**	**0.029**	**-13.6 (6.0)**	**0.023**	**-9.6 (4.6)**	**0.034**
Female gender	93.5 (47.9)	0.051	-2.0 (2.8)	0.470	0.4 (3.4)	0.907	16.5 (9.6)	0.085	16.5 (9.8)	0.093	**18.2 (8.0)**	**0.022**
Age at diagnosis	**2.8 (0.9)**	**0.003**	**-0.2 (0.1)**	**0.002**	0.0 (0.1)	0.946	0.2 (0.2)	0.276	0.2 (0.2)	0.232	**0.3 (0.2)**	**0.027**
SES												
Low	Ref.		Ref.		Ref.		Ref.		Ref.		Ref.	
Medium	-63.0 (45.4)	0.165	2.0 (2.8)	0.463	1.8 (3.5)	0.616	-12.1 (9.8)	0.217	-11.6 (10.0)	0.248	-11.2 (7.6)	0.137
High	-101.4 (53.6)	0.059	2.2 (3.2)	0.487	3.7 (3.9)	0.343	-9.6 (10.8)	0.377	-6.9 (11.1)	0.535	-11.8 (8.9)	0.184
Educational level, years	**12.2 (5.8)**	**0.034**	0.0 (0.3)	0.994	-0.2 (0.4)	0.711	-1.4 (1.2)	0.255	-1.5 (1.3)	0.229	-0.2 (1.0)	0.802
Disease duration	12.2 (5.8)	0.734	-0.1 (0.1)	0.2271	-0.2 (0.1)	0.103	0.3 (0.4)	0.464	0.2 (0.4)	0.665	0.2 (0.3)	0.579
SDI	-8.5 (8.3)	0.306	0.6 (0.5)	0.259	-0.9 (0.7)	0.210	-3.8 (1.9)	0.054	**-4.2 (2.0)**	**0.036**	0.0 (1.4)	0.981
Antimalarial use												
Current	Ref.		Ref.		Ref.		Ref.		Ref.		Ref.	
Past	3.5 (36.7)	0.924	2.8 (2.1)	0.183	2.0 (2.6)	0.438	-8.0 (7.2)	0.270	-1.9 (27.8)	0.945	-6.2 (6.1)	0.308
Never	**176.9 (79.4)**	**0.026**	-6.2 (4.6)	0.175	-2.9 (9.7)	0.763	0.1 (27.1)	0.997	-5.5 (7.4)	0.459	**33.5 (13.2)**	**0.011**

Conclusion: Remission and LLDAS are associated with a lower disease activity measured by the patient and fatigue. However, only remission was associated with a better work productivity.

PANLAR2021-ABS-1331

VALIDATION OF THE 2019 EUROPEAN LEAGUE AGAINST RHEUMATISM/AMERICAN COLLEGE OF RHEUMATOLOGY CLASSIFICATION CRITERIA OF SYSTEMIC LUPUS ERYTHEMATOSUS IN CHILDREN OF THE HOSPITAL INFANTIL DE MéXICO FEDERICO GóMEZ

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Objectives: To determine the sensitivity, specificity, positive predictive value and negative predictive value of the 2019 EULAR / ACR criteria for SLE in children who in the pediatric rheumatology service of the Hospital Infantil de México Federico Gómez and compare them with the ACR criteria of 1997 and the International Collaborating Clinics of Systemic Lupus (SLICC) 2012.

Table 1. Sensitivity, Specificity, Positive Predictive Value and Negative Predictive Value of the Classification Criteria of the European League Against Rheumatism and the American College of Rheumatology of 2019, American College of Rheumatology 1997 and the group of International Collaborating Clinics of Systemic Lupus from 2012.

Criteria	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)
2019 EULAR-ACR	98	100	100	98
ACR 1997	91	98	98	92
SLICC 2012	88	97	97	89

Table 2. Sensitivity, Specificity, Positive Predictive Value, and Negative Predictive Value of the Classification Criteria of the European League Against Rheumatism and the American College of Rheumatology of 2019 for Systemic Lupus Erythematosus.

Criteria	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)
Anti Nuclear Antibodie	100	0	50	-
Fever	32	92	80	56.99
Alopecia	12	98	86	53
Oral ulcers	16	99	94	54
Discoid rash	4	100	100	51
Acute cutaneous lupus	71	93	91	76
Arthritis	50	36	44	42
Delirium	0	100	-	50
Seizures	7	100	100	52
Psychosis	1	100	100	50
Pleural effusion	11	100	100	53
Pericardial effusion	4	100	100	51
Leucopaenia	24	100	100	56.99
Thrombocytopaenia	15	97	83	53
Autoimmune hemolysis	19	98	90	55
Proteinuria	39	98	95	62
Renal biopsy with Class II or V lupus nephritis	2	100	100	51
Renal biopsy with Class III or IV lupus nephritis	4	100	100	51
Antiphospholipid Antibodies	46	91	84	63
Low C3 or C4	15	96	79	53
Low C3 and C4	46	99	98	65
Anti-DNA	83	100	100	85

Methods: The medical records of juvenile Systemic Lupus Erythematosus (jSLE) patients during the first month of their illness were reviewed. Clinical and paraclinical data on them and in a control group consisting of rheumatologic diseases other than SLE who have a positive determination of antinuclear antibodies were abstracted. The ACR 1997, SLICC 2012 and 2019 EULAR / ACR classification criteria were applied to each patient to determine the sensitivity, specificity, positive predictive value and negative predictive value for each classification criteria.

Results: A total of 100 patients with jSLE diagnosis and 100 patients in the control group were included. 88% of the cases and 76% of the controls were female. The average age at diagnosis was 10.5 ± 3.78 years (2 - 17 years). When comparing the criteria proposed by 2019 EULAR-ACR, ACR 1997 and SLICC 2012, greater sensitivity, specificity, positive predictive value and negative predictive value were obtained in the 2019 EULAR-ACR criteria (98%, 100%, 100% and 98% respectively) as reflected in Table 1. Table 2 details the sensitivity, specificity, positive predictive value, and negative predictive value of each of the EULARACR 2019 classification criteria.

Conclusion: This is the first study in pediatric population comparing the three classification criteria; it reveals a sensitivity of 98% and specificity of 100% for the 2019 EULAR-ACR criteria, demonstrating greater sensitivity and specificity in comparison with the 1997 ACR and 2012 SLICC criteria. When evaluating the sensitivity and specificity of the criteria individually, the presence of ANA and anti-DNA positive had a high sensitivity: 100% and 83%, respectively. Most of the criteria in the three classification groups have acceptable specificities over 91%, except for arthritis, which has a specificity of 36%. This report identifies the applicability of the 2019 EULAR / ACR criteria and sets a guideline for future studies.

PANLAR2021-ABS-1344

ASSOCIATION OF ANTIPHOSPHOLIPID ANTIBODIES WITH COGNITIVE DYSFUNCTION IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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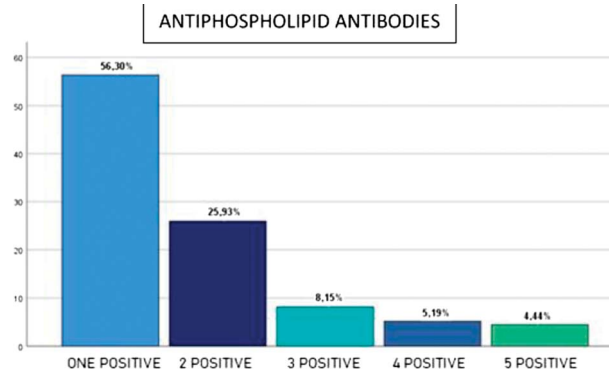
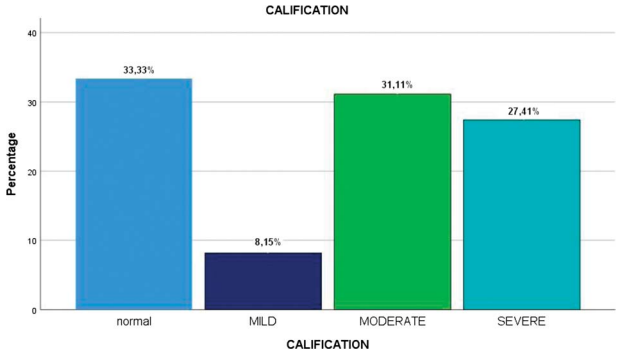
Objectives: Cognitive dysfunction is a prevalent manifestation of systemic lupus erythematosus (SLE). Its etiopathogenesis is still uncertain, but some evidence of the role of antiphospholipid antibodies (aPL) has been found. The objective of this study was to identify the association between the presence of aPL and cognitive dysfunction in SLE patients.

Methods: This cross-sectional study included 135 patients evaluated between March 2015 and October 2017. The percentages of patients with cognitive deficits in the presence of each aPL were calculated. The Neuropsi test was applied to evaluate cognitive dysfunction, SLEDAI-2 K to evaluate activity, SLICC/ACR damage index (SDI) for damage; antiphospholipid antibodies were measured by ELISA. The association between the presence of cognitive dysfunction and the presence of aPL was evaluated by performing univariable and multivariable lineal regression models adjusted by educational level, socioeconomic status, disease duration, SLEDAI, SDI, statins, acetylsalicylic acid, immunosuppressive drugs, hydroxychloroquine use, average dose of glucocorticoids and time of use of glucocorticoids. All analyzes were performed using a p value of <0.05.

Results: One hundred and thirty (97%) patients were female. Fifty-nine out of 135, 43.7% of the patients had some positive aPL antibody. IgM anticardiolipin



was (+) in 24.5%, IgG (+) 13.5%; antiβ2glycoprotein IgM (+) 16.8%, antiβ2glycoprotein IgG 24.6%; lupus anticoagulant (+) 5.3% (Figure 1). Ninety (66.7%) had some degree of cognitive dysfunction (Figure 2). In the univariable analysis, a significant correlation was found between the Neuropsi score and the presence of IgM anticardiolipin with a B of -20.87 ($p < 0.001$); and in the multivariable a B of -13.17 ($p = 0.002$).



Conclusion: These results suggest that the presence of IgM anticardiolipin could be linked to the development of cognitive dysfunction in SLE. Larger and longitudinal studies are needed in order to evaluate the real impact of these findings.

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PANLAR2021-ABS-1378

LUPUS PATIENTS INFECTED BY SARS-COV2 PERFORMED LESS SOCIAL ISOLATION WITH HIGHER HOSPITALIZATION ASSOCIATED WITH HYPERTENSION AND CYCLOPHOSPHAMIDE PULSOTHERAPY – DATA FROM REUMACOV BRAZIL

Edgard Torres Dos Reis Neto, Adriana Maria Kakehasi, Odirlei André Monticielo, Sandra Lúcia Euzébio Ribeiro, Cleandro Pires De Albuquerque, Samia Araujo De Sousa Studart, Joana Starling De Carvalho, Gustavo Flores Chapacais, Lilian David De Azevedo Valadares, Henrique Ataide Mariz, Flavia Patrícia Sena Teixeira Santos, Adriana Oliveira Marinho, Nafice Costa Araújo, Samuel Katsuyuki Shinjo, Francinne Machado Ribeiro, Felipe Omura, Ana Carolina Oliveira e Silva Montandon, Thiago Rached da Silva, Danielle Christinne Soares Egypto De Brito, Silviane Vassalo, Claudia Diniz Lopes Marques, Ana Paula Monteiro Gomides, Eduardo Dos Santos Paiva, Gecilmara Cristina Salviato Pileggi, Licia Maria Henrique Da Mota, Marcelo Medeiros Pinheiro, Ricardo Machado Xavier, and Gilda Aparecida Ferreira.

Objectives: To determine the main risk factors associated with COVID-19 in SLE patients.

Methods: The ReumaCoV Brazil is a multicenter, observational, prospective cohort designed to monitor immune-mediated rheumatic diseases patients during SARS-CoV-2 pandemic in Brazil. SLE adult patients according to SLE SLICC criteria classification (2012), with and without (control group – CG) COVID-19 diagnosis were matched.

Demographic data, managing of COVID-19, comorbidities, clinical characteristics (disease activity: Patient Report

Outcomes-PROs, Physician Global Assessment and SLEDAI-2 K) were collected.

Results: From May 2020 to January 2021, 604 SLE patients were included, 317 (52.4%) with COVID-19 and 287 (47.6%) in the CG. Both groups were homogeneous and comparable regarding sex and comorbidities. SLE patients with COVID-19 declared a lower level of social isolation (49.5% vs. 61.9%; $p = 0.002$), worked more commonly in health professions (10.4% vs. 3.5%; $p = 0.002$), presented more frequently joint (32.5% vs. 22.0%; $p = 0.004$) and hematological manifestations (18.0% vs. 11.5%; $p = 0.025$). SLEDAI-2 K did not differ among groups prior and after COVID-19 infection. However, considering the mean duration of COVID-19 symptoms (12.1 ± 8.8 days), infected patients had more severe disease activity's PROs after resolution of COVID-19 symptoms (2.9 ± 2.9 vs. 2.3 ± 2.6; $p = 0.031$). The hospitalization rate was 20.5% (n = 65), of whom 23 (7.2%) needed intensive care unit and 14 (4.4%) patients died. Hypertension [5,26 (1,9714,07); $p = 0.001$] and recently cyclophosphamide pulses [39,21 (4,17-368,53); $p = 0.001$] were associated with hospitalization and patients who received telemedicine medical care presented 72% less chance of hospitalization [0.28 (0.09-0.83); $p = 0.023$).

Conclusion: COVID-19 was associated with a lower level of declared social isolation and more severe disease activity perception after SARS-CoV-2 infection according to PROs. Hypertension and cyclophosphamide were associated with hospitalization and telemedicine can be a useful tool for SLE patients with COVID-19. These data should be considered to perform public health policy and national guidelines to manage SLE patients during the pandemic, as well as to prioritize some special groups for the immunization program.

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PANLAR2021-ABS-1164

LUPUS PANNICULITIS ON A SYSTEMIC LUPUS ERYTHEMATOSUS PATIENT

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Objectives: Lupus panniculitis (LP) is an infrequent chronic cutaneous lupus erythematosus (CCLE) variant. It may develop in association with other forms of lupus erythematosus or as an isolated phenomenon. The objective is describe a case the lupus panniculitis on a systemic lupus erythematosus patient.

Methods: Case report and literature review.

Results: Thirty year-old, housewife from Yucatán; rheumatoid arthritis carrier parents. Seronegative arthritis present for a 6 years, under treatment with methotrexate, leflunomide, deflazacort and hydroxychloroquine. Eighteen months of erythema and nail bed flaking, erythematosus nodules on upper extremities and erythematosus lesions on anterior thorax. On October 2020, asthenia, hyporexia and conjunctival icterus added up. Hospitalized on November 2020 with the diagnosis of jaundice syndrome; on physical exploration: generalized paleness, sclera icteric, with anterior thorax telangiectasis and erythematosus non-painful bilateral nodular lesions on upper extremities, on the back of the fingers at middle and proximal phalanges level. Laboratory tests showed anemia, increase in total bilirubin, indirect bilirubin, LDH, decrease in haptoglobin and direct Coombs positive. Systemic glucocorticoids and immunoglobulin were prescribed with the patients showing clinical improvement. Hemolytic anemia work up was pursued: non-reactive HIV 1-2, non-reactive Hepatitis C antibodies, non-reactive hepatitis B surface antibodies, negative blood cultures, negative TORCH profile test, positive ANA (1:160) with coarse speckled pattern, anti-dsDNA (0.345 INDEX), anti Sm (2.688 (INDEX), ESR (70 mm/ hour), CRP 52.5 (mg/L), hypocomplementemia (C3, C4). A biopsy of a skin lesion was performed: dermal-subcutaneous junction with dense lymphohistiocytosis and plasma cells infiltration affecting eccrine glands; interstitial neutrophils infiltration with neutrophil and histiocytosis vasculitis in subcutaneous tissue, granulomas comprised by epithelioid histiocyte and neutrophils with giant multi-nuclei cells of paraseptal predominance.

Conclusion: The diagnosis of SLE was made based on the 2019 EULAR/ACR classification criteria, linking hemolytic anemia to an immune cause, showing clinical improvement after treatment. In this case, LP was histologically documented; most LP cases are limited to the skin; systemic complications are rare, only between 5-10% of cases have met criteria for the diagnosis of SLE.

PANLAR2021-ABS-1254

SYSTEMIC LUPUS ERYTHEMATOSUS WITH IgA NEPHROPATHY: CASE REPORT

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Objectives: Systemic lupus erythematosus (SLE) is an autoimmune disease with multisystemic involvement and one of the most striking manifestations is nephritis. The classic clinical presentation is persistent proteinuria and/or cell casts or active urine sediment, that is, five or more red blood cells or leukocytes per high magnification field. IgA nephropathy, on the other hand, is manifested by persistent microscopic or sporadic macroscopic hematuria. Elevated anti-DNA titers and complement consumption may point to lupus-related kidney activity.

In this report, we present the case of a SLE patient with previous involvement of class IV lupus nephritis and who later developed IgA nephropathy.

Methods: Medical record review.

Results: Forty-year-old woman with SLE diagnosed in 1998, who met the criteria for cutaneous involvement, positive ANA, alopecia and lupus nephritis - class IV in a biopsy performed in 1999, requiring pulse therapy with methylprednisolone and after that with Cyclophosphamide at diagnosis. She had no other comorbidities.

Currently using hydroxychloroquine 400 mg, azathioprine 150 mg, enalapril 10 mg and prednisone 10 mg.

During outpatient follow-up, persistent microscopic hematuria was observed, but without laboratory results suggesting disease activity - complement and normal inflammatory tests, non-reactive anti-DNA. Common urine examination revealed the presence of hemoglobin and many erythrocytes, with absence of cell casts and proteinuria. Evaluation on urinary erythrocyte dysmorphism was carried out, which showed changes in 52% of the red blood cells. Urinary tract ultrasound showed no changes and preserved renal function.

We opted for a new renal biopsy in 2019, and a pathological study was compatible with IgA nephropathy, mesangial proliferative. Mesangial granular IgA (++) immunoflorescence, mesangial granular IgM (++), mesangial granular C3c (++).

New pulse therapy with methylprednisolone was performed for three days.

Conclusion: Even though SLE can coexist with other autoimmune diseases, it is rarely described in association with nephropathies of non-lupus etiology. The importance of distinguishing between SLE kidney disease activity and non-lupus nephropathies mainly implies kidney prognosis and the adoption of therapeutic measures.

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PANLAR2021-ABS-1360

CORRELATION BETWEEN CARDIOVASCULAR RISK MEASURED BY THE FRAMINGHAN SCORE, CAROTID INTIMA-MEDIA THICKNESS AND THE PRESENCE OF DIASTOLIC DYSFUNCTION IN SYSTEMIC LUPUS ERYTHEMATOSUS

Astrid Paats, Rodrigo Acosta[1], Marcos Vázquez[1], Sonia Cabrera-Villalba[1], Gabriela Avila[1], Anthon Torres[1], María Teresa Martínez[2], Paloma De Abreu[1], Osmar Centurión[1], and Isabel Acosta-Colmán[1]. *[1]Hospital de Clínicas, San Lorenzo, [2]Laboratorio Curie, Asunción, Paraguay.*

Objectives: To identify the correlation between cardiovascular risk measured by the Framingham score and increased carotid intima-media thickness (CIMT) and the presence of diastolic dysfunction in SLE patients.

Methods: This is an observational, analytical, cross-sectional study in SLE patients attending an outpatient rheumatology clinic from October 2018 to October 2019. A clinical and epidemiological questionnaire and laboratory tests including metabolism-related parameters were performed. The Framingham score was used to calculate cardiovascular risk at 10 years. Diastolic dysfunction was assessed by echocardiography according to the 2009 recommendations of the American Society of Echocardiography (ASE). Carotid intima-media thickness (CIMT) was assessed by carotid Doppler ultrasound, using a value greater than 0.9 mm as the cut-off point for increased thickness.

Results: Seventy-six patients were included, 85% of whom were women, with a mean age of 34.77 ± 12.55 years. The mean SLEDAI score was 3.725 ± 4.58. Forty-four (57.9%) patients were receiving antihypertensive treatment. Type 2 diabetes mellitus was present in 2.6% of the patients. Tobacco use was found in 12.5%. Regarding lipid blood values, 36.8% had low level of HDL and 52.8% had high level of total cholesterol. The frequency of cardiovascular events was 1.3% for ischemic heart disease, 1.3% for heart failure and 3.9% for stroke. According to the Framingham score, 10% of the patients were at high or moderate risk and the remaining 90% were at slight or low risk.

According to echocardiography, 32.3% of the patients had diastolic dysfunction. Of the total number of patients included, 53 patients underwent carotid echocardiography. Of these, 7.5% presented increased CIMT and 18.4% presented carotid plaques. An association was found between the presence of a moderate or high cardiovascular risk score and the presence of diastolic dysfunction (OR = 16.23 (1.81-144.9); p = 0.02). In addition, a positive and significant correlation (r = 0.541; p = 0.001) was observed between the Framingham score values and the mean CIMT value.

Conclusion: The presence of increased CIMT and diastolic dysfunction are associated with high or moderate risk as measured by the Framinghan score in patients with SLE.

PANLAR2021-ABS-1419

METABOLIC SYNDROME AND OTHER CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

Justino Toledo, Clyde Parodi, Astrid Paats, Marcos Vázquez, Sonia Cabrera, Gabriela Ávila, Paloma De Abreu, María Teresa Martínez de Filártiga, Osmar Centurión, and Isabel Acosta Colmán.

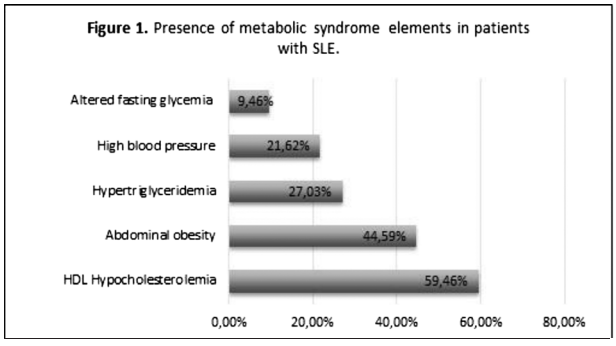
Objectives: To describe the presence of metabolic syndrome and its elements and other cardiovascular risk factors in patients with SLE.

Methods: Observational, descriptive, cross-sectional study. Patients with diagnosis of SLE according to SLICC 2012 criteria who were being cared for at the Rheumatology outpatient clinic between March 2018 and September 2019 were included. Questionnaires were used for data collection describing epidemiological and clinical characteristics especially the presence of metabolic syndrome and its components according to ALAD criteria.

Results: Seventy-four patients with the diagnosis of SLE were included of whom 85.1% represented women with a mean age of 33.96 ± 11.45 years. The mean disease duration was 72.56 ± 65.67 months. Metabolic syndrome criteria were met in 18.92% of the cases. Regarding other comorbidities or risk factors present: 1.4% had heart failure; 1.4% had coronary heart disease. 2.7% had at least one cerebrovascular accident. Renal insufficiency was present in 9.5% and 1.4% had history of pulmonary thromboembolism. 16% were smokers and 64.9% were sedentary. Lastly, 18.9% had a family history of cardiovascular disease. Regarding treatment, 55.4% were receiving glucocorticoids; 5.4% NSAIDs; 8.1% statins; 37.8% ACE inhibitors; 23% ARBs; 8.1% calcium channel blockers; and 8.1% beta-blockers. 8.1% were receiving beta-blockers; 5.4% diuretics; 81.1% were receiving calcium and vitamin D; 21.6% aspirin; 2.7% some type of oral antidiabetic. The main demographic and clinical features of these patients are shown in Table 1 whereas Figure 1 presents the frequencies of the different elements of the metabolic syndrome.

Conclusion: Although the minority of the patients met criteria for the metabolic syndrome, a large proportion of patients had isolated criteria that independently contribute to their increased cardiovascular risk.

Table 1. Mean clinical and laboratory variables related to increased cardiovascular risk in patients with SLE.	
Weight	66.60±15.35 kg
Height	155.48±26.45 cm
BMI	26.13±5.86 kg/m2
Abdominal circumference	87.014±13.89 cm
SBP	111.14±15.59 mmHg
DBP	69.47±10.40 mmHg
Fasting glycemia	88.59±10.32 mg/dl
HBA1c	5.33±0.68 mg/dl
Total cholesterol	160.62±36.90 mg/dl
LDL cholesterol	92.70±28.45 mg/dl
HDL cholesterol	45.33±10.51 mg/dl
Triglycerides	112.98±55.9 mg/dl



PANLAR2021-ABS-1206

ARE THERE ANY DIFFERENCES BETWEEN WOMEN AND MEN WITH LUPUS NEPHRITIS?

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Objectives: To evaluate the differences between women and men with Lupus Nephritis (LN) regarding type, safety and prognosis for 24 months.

Methods: The medical records of patients diagnosed with SLE and LN from the Rheumatology and Nephology departments were reviewed. Analytical variables (anti-DNA, C3, C4, creatinine, urine protein) and Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) were examined at 3,6,12,18 and 24 months. As a safety variable, infections rate and the affected organ were analyzed. STATA 15 program was used.

Results: 30 patients were included, 22 (73.33%) women, and 8 (26.67%) men. The mean age at the diagnosis of SLE was 29 (SD 13.27) years in women and 29.25 (SD 13.18) in men. The mean age at diagnosis of LN was 32.8 and 33.0 years, respectively. In the female group the histologic type of LN was: 1 patient (4.5%) type I, 7 (31.8%) type II, 5 (22.7%) type III, 6(27.27%) type IV and 3 (13.6%) type V. In the male group, 1 patient (12.5%) type III, 6 (75%) type IV and 1 (12.5%) type V (Fig 1). There was a statistically significant improvement in the creatinine, C3 and C4 levels at 3 months in the female group that it was not observed in men. There was not observed any difference between groups in the variables of urine proteinuria, anti-DNA or SLEDAI at 6,12,18 and 24 months. Three patients (10%) required renal replacement therapy, and of these patients, 2 required renal transplant, all of them being women. Men presented a higher range of infections than women, 87.5% and 72.3%, respectively. In men, the organ which was more affected was the lung in 82.5% of the cases. In women, it was urine infections in 68.75% of the cases.

Fig 1
Baseline characteristics

	WOMAN	MEN
Mean age at diagnosis LES[1]	29 years	29.25 years
Mean age at diagnosis NL[1]	32.77 years	33 years
Type I	4.5%	0%
Type II	27.27%	0%
Type III	22.7%	12.5%
Type IV	31.8%	75%
Type V	13.6%	12.5%

[1] *Mean (standard desviation).*

Conclusion: In our cohort, the results differed from those reported in other publications sofar. There was a higher prevalence of LN in women than in men. Type IV was the most prevalent in both groups. The disease course was similar in both groups with the exception of urine creatine, C3 and C4 at month 3, in which women did better than men. However, 3 patients required renal replacement therapy, and of these patients, 2 required renal transplant, all of them being women. Men presented a higher range of infections than women, and there were differences in the affected organ, respiratory infections in men, and urinary in women.

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PANLAR2021-ABS-1208

CASE REPORT: HYDROCEPHALUS AND MACROCEPHALY AS MANIFESTATION OF NEONATAL LUPUS

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Objectives: Hydrocephalus/Macrocephaly is rarely seen in neonatal lupus; it has been described in a few previous reports in children born to mothers with positive anti-Ro antibodies (Abs). We described a 4 month-old male infant, product of a second pregnancy, evaluated in a Pediatrics clinic with findings of rapid increase in his head circumference above the 93 percentile and widening of the anterior fontanel since his second month of age (Figure 1).

Methods: The mother signed an informed consent for this report.

Results: The pregnancy was uneventful and the child was born from an elective caesarean section at week 38. The birth weight and height were 2.7 kg and 49 cm, respectively. The mother had been diagnosed with SLE six years prior. She had a previous fetal loss due to asystole during week 16, but denied any flares during or after her second pregnancy. Before the age of one month, the

baby began to present multiple erythematous annular lesions on his face and trunk in absence of neurological symptoms; no other systemic manifestations were present. There was no evidence of any concurrent infectious illness. The laboratory tests showed normal values for white blood cell counts, liver and renal function. Thyroid function tests were normal and the TORCH (toxoplasmosis, rubella, cytomegalovirus and herpes simplex infection) panel test was negative. The mother tested positive for antinuclear antibodies (ANA) with speckled/nucleolar pattern, serum dil. 1:160, and anti-dsDNA; anti-SSA/Ro and Anti-SSB/La antibodies were present at high titers and C4 value was 14.4 mg/dL (16.4-32.5). The baby tested positive for anti-SSA/Ro and negative for ANA and anti-SSB/La antibodies. An echocardiogram showed no cardiac abnormalities in the baby. Transfontanellar ultrasonography showed an increase in the subarachnoid and interhemispheric spaces (Figure 2). The diagnosis was mild macrocephaly secondary to benign external hydrocephalus (BEH) due to neonatal lupus. Differential diagnosis includes idiopathic intracranial hypertension, meningitis and encephalitis. BEH can occur secondary to maternally transmitted anti-Ro autoantibodies and shows good prognosis with spontaneous resolution within months.

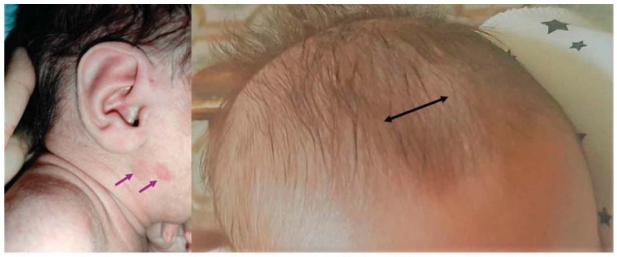

Figure 1. A. Erythematous annular lesions (arrows). B. Widening of the anterior fontanel (double arrow)

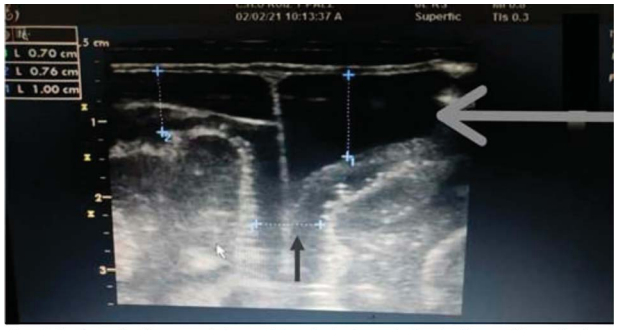

Figure 2. Transfontanellar ultrasonography in coronal plane showing increased subarachnoide space (big arrow) and increased interhemispheric space (small arrow)

Conclusion: To our knowledge this is the first case of hydrocephalus and macrocephaly as a manifestation of neonatal lupus reported in Latin America. Rheumatologists should take these findings into consideration to guide the mother and the pediatrician in a careful evaluation of the development of head circumference in children born of mothers with SLE and circulating anti-SSB/Ro antibodies.

PANLAR2021-ABS-1423

ECONOMIC IMPACT IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS. A PILOT STUDY

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Objectives: Systemic lupus erythematosus (SLE) is an autoimmune disease with multi-organ involvement. There are a few studies, but a high economic impact has been established in all, reporting direct costs from $ 3,735 to $ 14,410 dollars per patient / year. SLE is not considered a priority problem in health systems. In Mexico there are no estimates of the cost associated with SLE. The aim was to estimate the economic impact of SLE from the patient's perspective.

Methods: Patients with a defined diagnosis of SLE were studied. Sociodemographic and clinical data were collected and questionnaires of socioeconomic impact (labor, economic, housing characteristics, treatment, laboratory and office studies and hospitalizations) were applied. Disease activity was measured with Mex-SLEDAI and BILAG.

Results: 30 patients were included. 26 (86.7%) of the female sex, mean age was 41 ± 9.8 years, schooling of 10.3 ± 1.7 years, disease duration was 7.9 ± 4 years. Monthly family income was $ 8988.33 ± 6218.7 pesos, direct monthly costs were $ 13256.4 ± 19923.4 pesos (hospitalization expenses were the most important), indirect costs were $ 150 ± 243 pesos and totals were $ 13406.9 ± 19924.7 pesos. Catastrophic expenses in 12 patients (40%). Table 1 shows the associations and ORs related to catastrophic expenses by affected organ. Patients with catastrophic expenditures had a higher baseline MexSLEDAI (14 ± 3.3) than those who did not (9.83 ± 4.08) (p = 0.006).

Variable	With catastrophic expenses (12) N(%)	No catastrophic expenses (18) N(%)	p	OR (IC95%)
Constitutional (4)	1 (25%)	3 (75%)	0.632	0.45 (0.04-4.98)
Muco-cutaneous (27)	9 (33.33%)	18 (66.6%)	0.054	0.13 (0.01-1.34)
Neuropsychiatric (4)	4 (100%)	0 (0%)	**0.018**	**10.56 (1.07-104.12)**
Musculoskeletal (22)	8 (36.36%)	14 (63.63%)	0.678	0.57 (0.11-2.93)
Cardiopulmonary (4)	2 (50%)	2 (50%)	1.00	1.60 (0.19-13.24)
Renal (21)	10 (47.62%)	11 (52.38%)	0.249	3.18 (0.53-19.05)
Hematological (14)	9 (64.29%)	5 (35.71%)	**0.024**	**7.80 (1.48-41.22)**

Table 1: Catastrophic expenses by affected organ

Conclusion: The economic impact of SLE is high, especially in patients who require hospitalization. A high percentage of patients has catastrophic expenses. A large-scale study is needed that includes different coverage systems.

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PANLAR2021-ABS-1189

HIGH PREVALENCE OF ABNORMAL THYROID FUNCTION TESTS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AT AN OUTPATIENT CLINIC OF RHEUMATOLOGY IN NICARAGUA: A CROSS-SECTIONAL STUDY

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Objectives: There is evidence of the association between systemic lupus erythematosus (SLE), and thyroid disorders, although no clear mechanism of this association has been established.[1] Several studies around the world have described an increased prevalence of thyroid disease in SLE patients; however, information from Latin America is still very limited. Currently, no study has been published from Central America.[2] The primary aim of this study was to assess the prevalence of abnormal thyroid function tests (TFTs) in hospital outpatients with SLE from Nicaragua.

Methods: We carried out a cross-sectional study nested within a cohort of SLE patients being cared for at the national reference Outpatient Clinic of Rheumatology, at the School Hospital Dr. Roberto Calderon Gutierrez in Nicaragua. A sample of 84 patients were randomly selected and tested to determine total triiodothyronine (T3), free tetraiodothyronine (FT4) and thyroid stimulating hormone (TSH), between October and December 2020. A written informed consent was obtained from each patient. Baseline and clinical patient characteristics were also investigated to identify potential association with observed thyroid disorder frequency of the study group. Chi square and ANOVA tests were performed to explore associations.

Results: Overall, 32% of the cases presented altered TFTs. Among the 84 cases investigated, 22.6% presented decreased T3, 19% decreased FT4 and only 1.2% presented decreased TSH. On the other hand, FT4 and TSH were elevated in 3.6% and 11.9%, respectively. The prevalence of hypothyroidism was 19% and 14.3% were classified as euthyroid sick syndrome. We did not observe any cases of hyperthyroidism (table 1). Age, sex, duration of disease and disease

activity were not significantly related to the frequency of abnormal TFTs within the study group. When comparing frequency of chronic comorbidities by type of thyroid disorder, hypertension and chronic kidney disease seem to have higher frequency among patients with thyroid disorders (table 2).

Table 1. Prevalence of abnormal thyroid function tests in patients with systemic lupus erythematosus (SLE), attended at the national reference Outpatient Clinic of Rheumatology, at the School Hospital Dr. Roberto Calderon Gutierrez in Nicaragua.

Total cases, n			84
Total triiodothyronine (T3)*	x̄ (s)		1.1 (0.35)
		Decreased, n (%)	19 (22.6)
		Normal, n (%)	65 (77.4)
Free tetraiodothyronine (FT4)*	x̄ (s)		14.6 (3.72)
		Decreased, n (%)	16 (19)
		Normal, n (%)	65 (77.4)
		Increased, n (%)	3 (3.6)
Thyroid stimulating hormone (TSH)*	x̄ (s)		4.4 (18.1)
		Decreased, n (%)	1 (1.2)
		Normal, n (%)	73 (86.9)
		Increased, n (%)	10 (11.9)
Abnormal thyroid function tests*	Yes, n (%)		28 (33.3)
	No, n (%)		44 (66.6)
Type of thyroid disorder	Hypothyroidism, n (%)		16 (19)
	Euthyroid sick syndrome, n (%)		12 (14.3)
	Euthyroid, n (%)		56 (66.7)

x̄= mean, s= standard deviation.
*Reference values for serum concentration of thyroid hormones, National Center of Diagnosis and Reference, Ministry of Health, Nicaragua: 1) Triiodothyronine (T3) 0.85 - 2.02 ng / ml; 2) Free tetraiodothyronine (T4l) 12.00 - 22.00 pmol / l; and 3) Thyroid stimulating hormone (TSH) 0.27 - 4.20 uIU/ml.

Table 2. Baseline and clinical characteristics by type of thyroid disorder in patients with systemic lupus erythematosus (SLE), attended at the national reference Outpatient Clinic of Rheumatology, at the School Hospital Dr. Roberto Calderon Gutierrez in Nicaragua.

	Total cases (n=84)	Hypothyroidism (n=16)	Euthyroid sick syndrome (n=12)	Euthyroid (n=56)	p-value
Age (years), x̄ (s)	38.2 (13.1)	38.3 (14.2)	33.6 (12.1)	39.1 (13.0)	0.419
Sex, n (%)					
Male	6 (7.1)	2 (12.5)	1 (8.3)	3 (5.4)	0.610
Female	78 (92.9)	14 (87.5)	11 (91.7)	53 (94.6)	
Morbidity n (%)					
Diabetes	9 (10.7)	0 (0)	1 (8.3)	8 (14.3)	0.254
Hypertension	28 (33.3)	4 (25)	8 (66.7)	16 (28.6)	0.029*
Cardiac disease	7 (8.3)	1 (6.3)	2 (16.7)	4 (7.1)	0.526
Chronic kidney disease	7 (8.3)	4 (25)	2 (16.7)	1 (1.8)	0.0078*
Others	7 (8.3)	0 (0)	2 (16.7)	5 (8.9)	0.276
Duration of disease (years), x̄ (s)	5.8 (4.8)	6.6 (5.5)	6.3 (5.3)	39.1 (13)	0.624
SLEDAI-2K, x̄ (s)	7.2 (6.5)	8.1 (6.7)	10.4 (10.5)	6.2 (5.1)	0.103
Disease activity n (%)					
Inactive or mild	40 (47.6)	8 (50)	5 (41.7)	27 (48.2)	
Moderate	12 (14.3)	1 (6.3)	2 (16.7)	9 (16.1)	0.867
Severe	32 (38.1)	7 (43.8)	5 (41.7)	20 (35.7)	

x̄= mean, s= standard deviation.
SLEDAI-2K= Systemic Lupus Erythematosus Disease Activity Index 2000.
*Results were considered statistically significant if p<0.05.

Conclusion: This study suggests that the prevalence of thyroid disorders is high among patients with SLE, indicating that 1 out 3 patients showed abnormal TFTs, being hypothyroidism the most frequent type of abnormality.

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PANLAR2021-ABS-1376

CARE OF BRAZILIAN NURSES IN THE TREATMENT OF JUVENILE SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To assess the association between demographic data, training and professional experience; to identify the availability of the use of tools and treatments available in pediatric services in Brazil.

Methods: A cross-sectional study was performed among Brazilian nurses to examine the profile of these professionals in the care of childhood onset systemic lupus erythematosus (cSLE). The study was based on an online survey about their practice while caring for these patients. The study was approved by the local Ethics Committee.

Results: The response rate of web-based survey by LAPR was 111/373 (29.4%) and the majority of the responders were women (90,1%) and worked in public service (82,9%). As for the specific tools for cSLE, 37.8% were unaware of the instruments used routinely for assessment, 51.4% did not use the tools and 83.3% believed that knowledge of the disease is something that needs to be improved. Hospitalization (45.9%) and poor medication adherence (27.9%) were the main problems reported and half of the nurses (50.5%) did not know of the process for the transition of these children to adult care (Table 1).

Table 1: Demographic data, disease activity and other tools used and best practices to treat cSLE patients reported by nurses

Variáveis	n = 111 (%)
Disease activity tools used	
None	57 (51.4)
I dont´t know theses tools	42 (37.8)
SLEDAI	19 (17.1)
SLEDAI 2K	19 (18.0)
Parents global assesment	04 (03.6)
Other tools used	
None	55 (49.5)
I dont´t know theses tools	50 (45.0)
SLICC/ACR-DI	15 (13.5)
CHAQ	01 (9.0)
Best practices to treat cSLE patients	
Knowledge of treatment	93 (83.8)
Patient and family care	71 (64.0)
Treatment adherence	68 (61.3)
Hability to work with a multidisciplinary team	65 (58.6)
Good comunication	64 (57.7)
Family approach	60 (54.1)
Patient assessment and clinical care	57 (51.4)
Experience in rheumatology	25 (22.5)
Financial resources	24 (21.6)

Results are presented in n (%), cSLE – childhood-onset systemic lupus erythematosus, ACR - American College of Rheumatology, SLEDAI-2K - Systemic Lupus Erythematosus Disease Activity Index 2000, SLICC/ACR-DI - Systemic Lupus International Collaborating Clinics/ACR - Damage Index, CHAQ - Childhood Health Assessment Questionnaire

Conclusion: Professionals included performed routine care for patients with cSLE but they did not use tools to assess either disease activity or treatment; in addition to activities expected for patients with JSLE, such as checking vaccination booklets, sun protection, issues related to adherence, transition to adult care, use of palliative care were deficient which may be related to a knowledge gap.

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PANLAR2021-ABS-1203

IMPACT OF DEMOGRAPHIC AND CLINICAL FEATURES ON QUALITY OF LIFE IN VENEZUELAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To evaluate the impact of demographic and clinical features on health-related quality of life (HRQoL) in a cohort of Venezuelan patients with systemic lupus erythematosus (SLE). We have used a disease-specific HRQoL questionnaire, the Lupus Quality of Life (LupusQoL), validated in our patient population.

Methods: A cross-sectional study was conducted among 100 patients with SLE. Patients completed a form with demographic, clinical, and treatment compliance data, and the LupusQoL questionnaire. The continuous variables of age, study time, disease duration, SLEDAI, and SLICC were correlated with the LupusQoL scores by Spearman's r correlation coefficient test. Mann-Whitney U test was used to compare HRQoL between the 2 groups of patients according to treatment compliance. Binomial logistic regression using the backward successive step selection method (Wald) was performed to determine the predictors of the eight domains of the LupusQoL according to SLEDAI score (inactive <4 and active ≥4). The best valid model that classified the highest percentage of patients was taken into account.

Results: Patients were stratified as "better" in all domains of the LupusQoL, according to the cutoff points previously established for this patient population (Table 1). Age correlated negatively with all domains of the LupusQoL (r = -0.22 to -0.43), except for "burden to others". Disease activity correlated negatively with all domains of the LupusQoL, except for "intimate relationships" and "burden to others" (Figure 1). Patients who fully complied with treatment had a higher median physical health score compared to patients who did not comply with at least one of the prescribed medications ($p < 0.05$) (Table 1). In patients with active SLE, the predictor for "worse" planning and intimate relationships was increasing age ($p < 0.05$), while having had a SLE flare in the previous six months predicted a "worse" physical health ($p < 0.05$).

Table 1. Correlation between demographic and clinical features and the eight domains of LupusQoL in 100 Venezuelan patients with SLE

LupusQoL domains	Median LupusQoL [IQR]	Age	Study time	Disease duration	SLEDAI	SLICC	Treatment compliance: Median non-compliance [IQR]	Treatment compliance: Median compliance [IQR]
Physical health	73.4 [38.3]	-0.38‡	0.21*	-0.34‡	-0.32†	-0.32†	68.8 [39.1]	84.4 [31.2]‖
Pain	66.7 [41.6]	-0.32†	0.13	-0.33‡	-0.31†	-0.27†	58.3 [45.8]	66.7 [41.6]
Planning	83.3 [43.8]	-0.22*	0.15	-0.13	-0.35‡	-0.24*	83.3 [45.8]	91.7 [41.7]
Intimate relationships	75 [50]	-0.43§	0.25*	-0.19	-0.15	-0.12	75 [37.5]	75 [37.5]
Burden to others	66.7 [50]	-0.17	0.04	-0.01	-0.13	-0.13	66.7 [50]	66.7 [41.6]
Emotional health	75 [38.5]	-0.23*	-0.01	-0.18	-0.37‡	-0.29†	70.8 [35.4]	83.3 [25]
Body image	85 [31.3]	-0.24*	0.01	-0.09	-0.34‡	-0.24*	80 [37.5]	90 [30]
Fatigue	62.5 [39.1]	-0.3†	0.07	-0.20*	-0.27†	-0.26†	56.3 [40.6]	75 [37.5]

*$p < 0.05$; †$p < 0.01$; ‡$p < 0.001$; §$p < 0.0001$ (p-values by Spearman's r); ‖$p < 0.05$ (p-values by Mann-Whitney U test). LupusQoL: Lupus Quality of Life questionnaire; IQR: interquartile range; SLEDAI: Systemic Lupus Erythematosus Disease Activity Index; SLICC: Systemic Lupus International Collaborating Clinics.

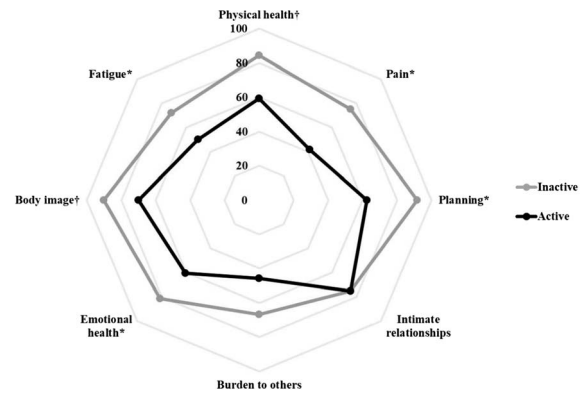

Fig. 1. Spydergram of the eight LupusQoL domains in 100 Venezuelan patients with active and inactive SLE at inclusion. Data show medians. *$p < 0.05$; †$p < 0.01$ (p-values by median's test).

Conclusion: HRQoL was stratified as "better" in all domains of the LupusQoL, according to the cutoff points of the questionnaire for this population. Age and disease activity were negatively correlated with almost all domains of the LupusQoL, and treatment compliance was related with higher median physical health scores. Disease control and treatment compliance should be main goals for a better HRQoL in our patients with SLE.

PANLAR2021-ABS-1205

VALIDATION OF THE LUPUSQOL IN VENEZUELA: A SPECIFIC MEASUREMENT OF QUALITY OF LIFE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: Frequently, the health-related quality of life (HRQoL) of patients with systemic lupus erythematosus (SLE) is assessed using instruments that overlook the specific characteristics of the disease. In our study we examined the validity of the Lupus Quality of Life (LupusQoL) questionnaire as a psychometrically stable instrument to measure the HRQoL, and established the cutoff points of the questionnaire in a sample of Venezuelan patients with SLE.

Methods: A cross-sectional study including patients with SLE who completed the LupusQoL, was conducted. Data on sociodemographic, disease activity (SLEDAI), and accrued damage (SLICC-DI) were also obtained. Reliability was evaluated for internal consistency and the convergent validity of the LupusQoL was determined using the "Generalitat de Catalunya" (GENCAT) scale.

Results: Patients (N = 100) were 93% female; mean age was 42 years (SD ± 13), and mean disease duration was 11 years (SD ± 9); the means of SLEDAI and SLICC-DI were 3 and 1, respectively. Reliability of the LupusQoL showed a Cronbach's alpha coefficient of 0.96. The cutoff point that determined a "better" from a "worse" HRQoL for LupusQoL was 64.55 points (Table 1). Using the GENCAT scale and after grouping following the cutoff points, a moderate convergence of the LupusQoL was found (Cohen's kappa coefficient = 0.556; p < 0.001). LupusQoL was inversely correlated with SLEDAI (rho = -3.27; p = 0.001) (Fig. 1A) and SLICC-DI (rho = -0.25; p = 0.014) (Fig. 1B). LupusQoL discretely predicted disease activity (SLEDAI) for values ≥4 (area under the curve = 0.704; sensitivity: 74.24%; specificity: 67.65%), while it poorly predicted accumulative damage (SLICC-DI) for values ≥1 (area under the curve = 0.642; sensitivity: 66.67%; specificity: 52.94%).

Table 1. LupusQoL cutoff points in Venezuelan patients with SLE (N = 100)

LupusQoL domains	Cutoff-points scores	Area under the curve	*p*-value	Correctly classified patients (%)	Sensitivity (%)	Specificity (%)
Physical health	56.25	0.993	0	97	100	89.6
Pain	58.33	1	0	100	100	100
Planning	66.66	1	0	100	100	100
Intimate relationships	65.2	1	0	100	100	100
Burden to others	58.33	1	0	100	100	100
Emotional health	54.16	0.99	0	99	98.65	100
Body image	70	0.99	0	98	97.3	100
Fatigue	56.35	0.99	0	98	100	95.24
Total	64.55	0.99	0	99	100	97.56

Conclusion: The LupusQoL is a valid psychometrically stable instrument to measure HRQoL in Venezuelan patients with SLE. HRQoL negatively correlates with the SLEDAI in our patients thus warranting therapeutic strategies for a rapid and sustainable control of disease activity.

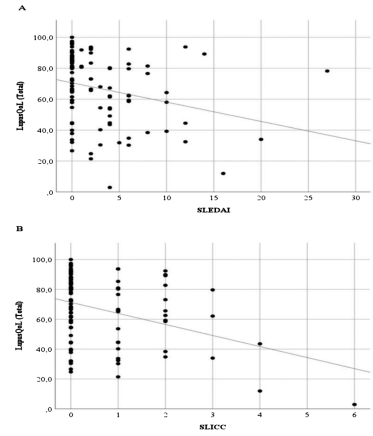

Fig. 1. Correlation between SLEDAI and SLICC with LupusQoL in Venezuelan patients with SLE. (A) Correlation between SLEDAI and LupusQoL (N = 100; rho = -3.27; $p = 0.001$); (B) Correlation between SLICC and LupusQoL (N = 100; rho = -0.246; $p = 0.014$).

PANLAR2021-ABS-1323

ANGIOEDEMA WITHOUT WHEAL ASSOCIATED WITH SYSTEMIC LUPUS ERYTHEMATOSUS. CASE REPORT, LITERATURE REVIEW AND APPROACH PROPOSAL

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Objectives: Angioedema (AE) without wheal is a localized edema, secondary to the release of bradykinins, characterized by larval, migratory and persistent symptoms that do not respond to the use of antihistamines. Due to its potential fatal compromise, the etiological approach that includes hereditary or acquired forms is important, most of the time due to C1 inhibitor (C1 inh) deficiency; which is also an important regulator of complement pathways, whose imbalance may be associated with the development of autoimmune diseases, in this article the case of a patient with systemic lupus erythematosus (SLE) presenting AE without wheal in the facial region is presented, proposing an evaluation scheme for patients with AE without wheals.

Methods: Case report and literature review.

Results: We present the case of a 49-year-old patient with SLE who consulted for facial asymmetric edema of 4 days in duration (Figure 1), without the presence of wheals, without response to antihistamines and corticosteroids, with a history of orotracheal intubation 6 years prior due to a similar condition. In her paraclinical studies, the consumption of C3 and C4 complement is highlighted, as well as a strong positivity for anti-DNA antibodies, without clinical evidence of other domains being involved. The glucocorticoid dose was increased, antimalarial and tranexamic acid were added with improvement of the clinical picture; considering the diagnosis of acquired angioedema (AAE); associated lymphoproliferative pathologies were ruled out (Figure 2).

Conclusion: In autoimmune diseases, the incidence of AAE should be recognized, ruling out associated lymphoproliferative pathologies, since the delay in diagnosis can have unfavorable outcomes, including life-threatening situations.

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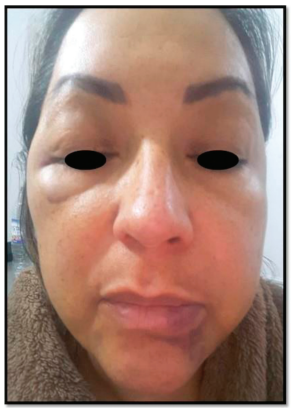

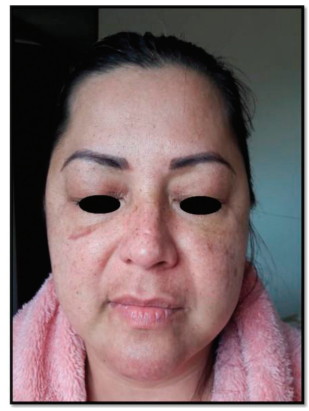

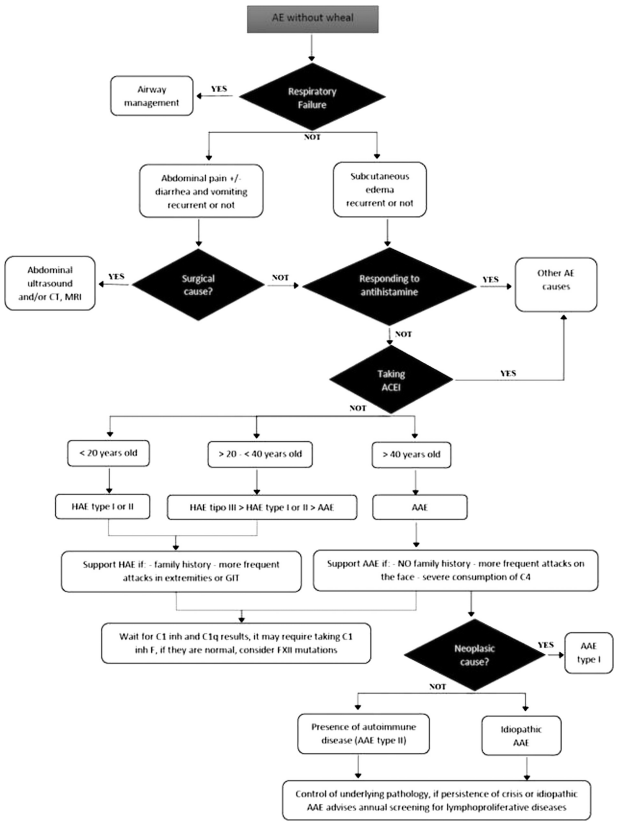

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PANLAR2021-ABS-1347

POSTERIOR SCLERITIS IN SYSTEMIC LUPUS ERYTHEMATOSUS

Valery Ascuña, Hugo Madariaga, and Maria Elena Luza.

Objectives: To report posterior scleritis as an atypical clinical finding in systemic lupus erythematosus and its treatment.

Methods: Case report.

Results: 45-year-old woman with a diagnosis of SLE for 3 years, with kidney involvement. She received only one dose of cyclophosphamide to which she had an adverse reaction (very severe secondary headache). Treatment with azathioprine 150 mg was started, which was gradually reduced to 50 mg maintenance due to inactivity of the disease. retro ocular pain in both eyes was started, which increased at night and with movement. In addition to photophobia and decreased visual acuity. There are no findings of uveitis or lupus retinopathy. An ocular ultrasound was performed where a thickened scleral wall is found (2.1 and 2.3 mm in each eye) without other relevant findings. OCT optic nerve and normal macula.

Methylprednisolone 1 g was indicated for 3 days and treatment was changed to mycophenolate mofetil 2 g daily, in addition to rituximab 1 g, after 15 days, the second dose and the next dose in 6 months. With resolution of scleritis after one month of treatment.

In 2020, due to an exceptional pandemic situation, the dose of RTX was postponed for a month and a half, a period in which posterior scleritis reactivated, confirmed by a new ocular ultrasound. She received MTP and RTX again, with resolution of this episode after 3 weeks.

Conclusion: Scleritis due to systemic disease is almost exclusive to rheumatoid arthritis, granulomatosis associated with polyangiitis, and rare cases associated with relapsing polychondritis. Its presence in other autoimmune diseases is very rare, including systemic lupus erythematosus, and the few reported cases are due to anterior scleritis.

In the differential diagnosis of eye pain in patients with SLE, there should be a suspicion of posterior scleritis, whose diagnosis is not clinical, but imaging with ocular ultrasound.

PANLAR2021-ABS-1076

POLYAUTOIMMUNITY PHENOMENON IN SYSTEMIC LUPUS ERYTHEMATOSUS: SECONDARY SJOGREN SYNDROME

Cristiana S. Santos.

Objectives: To determine the incidence of secondary Sjogren (sSS) in patients diagnosed with lupus systemic erythematosus (SLE-SS) and compare clinical and serological features of SLE-SS to SLE-only patients.

Methods: We performed an observational study including patients seen at Rheumatology department diagnosed with lupus systemic erythematosus (SLICC criteria) between 1990-2020. A total of 453 patients diagnosed with SLE were assessed for fulfilment of the criteria for SS using: (European questionnaire and Schirmer test), fluorescein staining test/non-stimulated whole-salivary flow, and anti-Ro/La antibodies and lip biopsy. Anti-Ro/SSA and anti-La/SSB antibodies and RF were measured at entry into the cohort and at SS assessment. SS/SLE was defined according to the American-European Consensus Criteria (AECC). We defined as SLE-SS the case that only fulfilled SLE classification criteria at first and then, during follow-up, the disease progressed and met classification criteria for sSS.

Results: SLE-sSS, occurred in 11% of the patients with SLE. In comparison to SLE-non sSS, the SLE-sSS group was older at inclusion, onset and with a longer disease course. Sicca syndrome, oral ulcers, pulmonary involvement, and peripheral neuropathy were more frequent. Anti-SSA, anti-SSB, rheumatoid factor and total IgG were higher in the SLEsSS group (for all comparisons).

Conclusion: SLE–SS appears to be a subgroup of patients with distinct clinical and serologic features, and represents 11% of the cohort. The frequency of SLE-sSS increased with age. The subset of patients with SLE-SS has higher frequency of oral ulcers, anti-Ro and anti-La antibodies and a lower frequency of renal disease, anti-dsDNA antibodies, anti-SM and lower hypocomplementemia of C3 and C4.

PANLAR2021-ABS-1244

FREQUENCY OF INFECTION ASSOCIATED WITH IMMUNOMODULAR TREATMENT IN RHEUMATIC DISEASES IN A COHORT OF COLOMBIAN PATIENTS

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Objectives: To determine the frequency of infectious diseases and immunomodulatory treatment in patients with rheumatic disease treated at the National University Hospital of Colombia (HUN).

Methods: Descriptive study carried out with a cohort of 169 outpatients and hospitalized patients, treated at the HUN with a diagnosis of rheumatic disease under immunomodulatory treatment, associated with an acute and/or chronic infectious process.

Results: The highest frequency of infection was associated with SLE-APS (n = 74) (79.28%), followed by RA (n = 64) (68.07%) with a predominance of the female gender (71.60%). The average ages of patients with infection was between 50-60 years, having a diseases duration greater than 5 years was common among those most affected. In patients with SLE-APS, infection of the gastrointestinal tract (GIT) (60%) by Clostridium difficile was identified; bacteremia (57.89%) by S. aureus and E. coli, upper respiratory infection (57.14%) by Candida albicans and sepsis (50%) by S. aureus. In patients with RA, CNS infection (60%) and osteomyelitis (57%) were mainly associated with S. aureus; 9 patients (5.32%) had Herpes zoster, 4 in SLE-APS, 4 in RA (44.44%) and 1 in scleroderma (11.11%). Latent TB was identified in 20 patients (35%) with RA had and in 6 (30%) patients with Vasculitis. Prednisolone turned out to be the most common immunosuppressive drug in all groups of patients, followed in order of frequency by methotrexate and leflunomide (see table 1).

	Rheumatology Diagnostic									
	Rheumatoid arthritis		Vasculitis		SLE-APS		Other connective tissue diseases		Inflammatory Diseases	
Treatment	Frecuency	Proportion	Frecuency	Proportion	Frecuency	Proportion	Frecuency	Proportion	Frecuency	Proportion
Methotrexate	33	26.19%	2	6.25%	12	7.95%	6	17.65%	5	38.46%
chloroquine	6	4.76%	1	3.125%	20	13.25%	--	--	1	7.69%
Prednisolone	41	32.54%	14	43.75%	51	33.77%	9	26.47%	1	7.69%
Methylprednisolone	1	0.79%	2	6.25%	6	3.97%	1	2.94%	1	7.69%
Deflazacort	1	0.79%	1	3.125%	4	2.65%	1	2.94%	--	--
Hydroxychloroquine	3	2.38%	1	3.125%	23	15.23%	2	5.88%	--	--
Azathioprine	1	0.79%	4	12.5%	15	9.93%	2	5.88%	--	--
Mycophenolate	1	0.79%	4	12.5%	10	6.62%	2	5.88%	--	--
Sulfasalazine	5	3.97%	1	3.125%	--	--	--	--	2	15.38%
Leflunomide	18	14.29%	1	3.125%	2	1.32%	--	--	--	--
Abatacept	2	1.59%	1	3.125%	--	--	--	--	--	--
Certolizumab pegol	2	1.59%	--	--	1	0.66%	--	--	1	7.69%
Denosumab	1	0.79%	--	--	--	--	--	--	--	--
Rituximab	2	1.59%	--	--	--	--	--	--	--	--
Tocilizumab	1	0.79%	--	--	--	--	--	--	--	--
Etanercept	4	3.17%	--	--	1	0.66%	--	--	--	--
Belimumab	--	--	--	--	2	1.32%	--	--	--	--
Adalimumab	4	3.17%	--	--	--	--	--	--	1	7.69%
Colchicine	--	--	--	--	--	--	9	26.47%	1	7.69%
Cyclophosphamide	--	--	--	--	4	2.65%	2	5.88%	--	--

Conclusion: Rheumatic diseases are chronic inflammatory diseases with irreversible tissue damage, in which treatment with different types of immunomodulatory drugs are used. These drugs can be associated with side effects, including concomitant infection and consequent high morbidity/mortality. This study carried out in Latin America, describes the frequency of infections in patients with SLE-APS and RA. Infections were associated mainly to treatment with prednisolone followed by methotrexate and leflunomide, with a higher incidence of serious infections with their use. Gastrointestinal tract infection was the most serious infection in SLE-APS, followed by CNS involvement in RA. It is necessary to evaluate a larger number of patients to determine a better statistical association with respect to immunomodulatory treatment alone or in combination in these diseases.

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PANLAR2021-ABS-1333

PANCREATITIS AS A MANIFESTATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

Maria Alejandra Dueñas Zambrano, Anna Sofía Vargas Avilés, and Víctor Hernán Gomez Coello Vásquez.

Objectives: To define the main systemic manifestations of systemic lupus erythematosus associated with pancreatitis.

Introduction: Acute pancreatitis (AP) in systemic lupus erythematosus (SLE) has an annual incidence of 0.4-1.1 per 1000 patients. The main etiological causes are alcohol and cholelithiasis, however, AP associated with SLE can occur due to the production of autoantibodies, vasculitis, microthrombosis, among others.

Methods: Description of seven patients with SLE (ACR and SLICC 2012 criteria) and acute pancreatitis who were admitted to the rheumatology service.

Results: Average age of the patients, 24 years (22-29); female gender 6 (85.7%); SLE duration 3.8 years (1 to 7), SLEDAI 19 points (12-19). 100% of the patients presented with abdominal pain related to AP, nausea 71.42%, vomiting in 85%, diarrhea 14.28%. 100% presented skin symptoms, hematological disorders occurred in 6 patients (85.71%), serositis and joint disease in 5 (71.42%). Lupus nephritis was seen in 4 cases (57.14%), pulmonary involvement in 2 patients (28.57%), one with interstitial lung disease and another patient with alveolar hemorrhage. One patient (14.28%) presented with neurological symptoms: aseptic meningitis and subsequently developed posterior reversible encephalopathy syndrome (PRES).

The treatment in 4 patients (57.14%) was methylprednisolone and cyclophosphamide, in 2 patients (28.57%) methylprednisolone and rituximab were used. In the patient who presented with alveolar hemorrhage, plasmapheresis therapy was utilized, but without a favorable response.

Conclusion: Acute pancreatitis in our series of cases was mainly associated with gastrointestinal, hematological, serositis and joint manifestations. AP was considered secondary to SLE activity.

Treatment with glucocorticoids and immunosuppressants improved the outcomes of patients.

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PANLAR2021-ABS-1079

THE RISK FACTORS FOR NEUROPSYCHIATRIC LUPUS IN A SINGLE CENTER COHORT

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Objectives: Neuropsychiatric lupus (NPL) is particularly difficult to diagnose (1) and treat. There is not a clear relationship between NPL autoantibodies (2). Socioeconomic factors have been shown to have an effect in patient outcome in SLE and NPL (3). This study examined the relationship between SLE related autoantibody, patient demographics and NPL in our SLE cohort.

Methods: This was a SLE single center, retrospective chart review study that was performed at a university based tertiary referral center. Patients 18 and above, meeting the ACR 1997 criteria seen between June 1st 2015 and June 1st 2019 were included in this study. 629 SLE patients were identified, and 263 patients were included. Demographic and serological data was collected. Supplemental socioeconomic information for each zip code in Southwest Virginia was obtained from the United States Government Census website. The continuous variables were analyzed using T-test or Mann-Whitney U test. Categorical variables were analyzed using Chi-square Tests or Fisher's exact tests. Statistical analysis was performed using SAS9.4, and p value <0.05 was considered statistically significant.

Results: We found no statistical relationship between age, sex, race and NPL (table 1). We noted no relationship between median household income and

the diagnosis of NPL. We did find the presence of antiphospholipid antibodies (aPL) was significantly associated with NPL, and that Complement 4 (C4) levels trended towards statistical significance.

Presences of Neurological Symptoms			
	No (n=166)	Yes (n=82)	p-value
Age (mean ± sd)	36.6 ± 13.4	36.1 ± 13.5	0.83
Female	83.7%	86.4%	0.58
Race			0.22
Caucasian	54.9%	65.0%	
Black	37.2%	32.5%	
Hispanic	3.0%		
Other	4.9%	2.5%	
Med Household Income ($K, (mean ± sd))	43.6 ± 14.2	45.8 ± 14.8	0.27
<26.2K	15.4%	12.0%	0.73
26.2K - 56.5K	62.3%	62.7%	
>56.5K	22.2%	25.3%	
Antibody			
aPL	9.4%	30.3%	<0.01
C4	39.0%	50.6%	0.09

Conclusion: In our cohort of patients, there was no relationship between patient specific characteristics, their socioeconomic factors and the diagnosis of NPL. There was a statistically significant relationship between aPL antibodies and the diagnosis of NPL. Other SLE related antibodies showed no statistical relationship with the diagnosis of NPL.

Although not statistically significant, there was a trend towards significance between C4 levels and the diagnosis of NPL.

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PANLAR2021-ABS-1279

CHARACTERIZATION OF PATIENTS WITH LUPUS ERYTHEMATOSUS WITH MAJOR MANIFESTATIONS IN CUBA

Miguel Hernán Estévez del Toro, Araceli Chico Capote, Mary Luisa Mora Quezada, Silvia Siham Mendoza Kunkar, and Ramón García Hernández.

Objectives: To characterize patients with a diagnosis of Systemic Lupus Erythematosus with major manifestations.

Methods: A descriptive cross-sectional study was carried out, which included 621 patients with a diagnosis of SLE, treated at the Rheumatology Service, during the period from 1989 to March 2021.

Results: Mean age at diagnosis was 31.3 years, 83.9% being women, with white skin color predominant in 68.28%. 55.72% had a pre-university education, followed by 23.51% who were university students and only 1.61% received primary instruction. 51.85% of the patients were from Havana. The mean evolution time was 18.8 years and a mortality of 6.44%. Of the clinical manifestations, the highest percentage (67.31%) presented with non-erosive arthritis. Of the immunological criteria, 92.43% had the presence of antinuclear antibodies (ANA). The most affected target organ was the kidney affecting 38.81% of the group. Class IV lupus nephritis occured most frequently (17.07%). 6.43% of the patients presented antiphospholipid antibody syndrome (APS), followed by 4.66% who developed avascular bone necrosis (AVN) in some location. 32.37% developed accumulated damage and 37.52% have arterial hypertension as comorbidity. Prednisone was the most used drug, representing 52.5%, followed by antimalarials with 37.04% and cyclophosphamide at 28.18%.

Conclusion: Patients with SLE in this cohort were young women of childbearing age, with the presence of positive ANA, non-erosive arthritis and kidney disease. Accumulated damage was low. Protocolized consultation and timely treatment was administered in the majority of patients.

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PANLAR2021-ABS-1327

PREVALENCE OF ARRYTHMIAS IN 24-HOUR HOLTER IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS AND HEALTHY CONTROLS

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Objectives: To determine the prevalence and types of rhythm disturbances present in SLE patients by 24-hour Holter monitoring compared to healthy individuals.

Methods: Longitudinal, observational study. Eighty-one patients with SLE and 38 controls were included from March 2018 to August 2019. All patients and controls underwent 24-hour Holter monitoring. The variables studied were: presence of sinus tachycardia or bradycardia, atrial or ventricular tachyarrhythmias, atrial or ventricular extrasystoles, pauses, and AV or bundle branch blocks.

Results: Eighty-one 24-hour Holters were performed in SLE patients and 38 in healthy controls. The findings are shown in Table 1. The most frequently identified abnormality in SLE patients was sinus tachycardia in 20.99% (17/81). No statistically significant differences were found in the frequency of sinus tachycardia, arrhythmias and atrial or ventricular extrasystoles, pauses or AV blocks, between patients with SLE and healthy controls.

Table 1. Frequency of rhythm disturbances in SLE and healthy controls.

	SLE	Controls	p
Sinus tachycardia	20,99% (17/81)	13,51% (5/37)	0,33
Atrial extrasystoles	3,7% (3/81)	8,11% (3/37)	0,37
Ventricular extrasystoles	7,41% (6/81)	5,26% (2/38)	1
Atrial arrhythmias	0% (0/81)	0% (0/38)	-
Ventricular arrhythmias	0% (0/81)	0% (0/38)	-
Pauses	0% (0/81)	0% (0/38)	-
AV or Bundle Branch Blocks	1,23% (1/81)	2,63% (1/37)	-

Conclusion: Sinus tachycardia is the most frequently found rhythm alteration in patients with SLE, followed by ventricular extrasystoles, although this frequency does not vary significantly in relation to the group of healthy individuals studied.

PANLAR2021-ABS-1268

ASSESSMENT OF FATIGUE IN SYSTEMIC LUPUS ERYTHEMATOSUS, SANTO DOMINGO, DOMINICAN REPUBLIC

Teresandris Polanco Mora[1], Jennifer Santana Peralta De Heyaime[1], Angelo Alberto Cornelio Vasquez[1], Yamilet Cruz[1], Tirso Valdez Lorie[1], Edral Rodriguez Bautista[1], Roberto Muñoz Louis[1], and Rafael Alba Feriz[1]. [1]*Reumatologia, Hospital Docente Padre Billini, Santo Domingo, Dominican Republic.*

Objectives: To assess the degree of fatigue in patients with systemic lupus erythematosus.

Methods: Observational, cross-sectional study. Outpatients of the rheumatology service of the Padre Billini Hospital were interviewed in January and April 2021 with a diagnosis of systemic lupus erythematosus (SLE). Inclusion criteria:> 18 years, SLE by SLICC 2012 classification criteria. Exclusion

criteria: patients with fibromyalgia, depression or anxiety, severe intellectual deficit or problems understanding and making themselves understood in the Spanish language, which impede reading or comprehension of the FACIT-F test. Fatigue was measured using the fatigue subscale of the FACIT-F quality of life questionnaire. Data were analyzed with SPSS V23.

Results: A total of 237 patients, 90 patients met the inclusion criteria. 100% female. Mean age 31+ 12.04 years. 91.11% (82) of patients have a duration of the disease 7 years. Average duration of the disease 6.23 years. With an average of FACIT-F 25.63 and FSS 36.87 points.

Conclusion: Our study showed that the vast majority of patients with moderate disease activity present with significant fatigue, which contrasts with patients with low disease activity who report lower levels of fatigue.

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PANLAR2021-ABS-1417

RESPONSE TO TREATMENT IN THE FIRST YEAR IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives and Introduction: Systemic lupus erythematosus (SLE) is a multisystemic, autoimmune disease with a large number of clinical manifestations. Complications are often frequent. Treatment and adherence during the first year of evolution are very important to avoid damage and have a better prognosis.

To characterize the response to treatment in the first year of follow-up of patients with SLE.

Methods: Records of patients with a defined diagnosis of SLE who had at least one year of follow-up were reviewed.

Sociodemographic, clinical, treatment and adherence data were collected. Functional capacity (HAQ-DI), quality of life (EuroQoL-5D), accumulated damage (SLICC) and disease activity (BILAG and Mex-SLEDAI) were measured at baseline, 6 and 12- month visits.

Results: 101 files were reviewed. 90 (90.1%) were female, with an age of 40.4 ± 11.9 years, schooling of 10.83 ± 3.16 years. The treatment used is shown in Table 1. Adherence was>80% in 86 patients (85.1%). SLICC 1 ± 1, HAQ-DI 0.23 ± 0.38, EuroQoL-5D 0.71 ± 0.29. Figure 1 shows the overall decrease in lupus activity per visit by BILAG component. The most persistent activity occurred in the renal, hematological and neuropsychiatric systems. Low adherence was associated with less schooling and greater damage. Mex-SLEDAI>4 at 12 months was associated with greater damage.

MEDICATION	BASAL N (%)	6 MONTHS N (%)	12 MONTHS N (%)	p
HYDROXYCHLOROQUINE	61 (85.9)	63 (88.7)	65 (92.5)	0.301
AZATHIOPRINE	23 (32.4)	35 (49.3)	30 (42.3)	0.013
CYCLOPHOSPHAMIDE	20 (28.2)	22 (31)	15 (21.1)	0.062
METHOTREXATE	10 (14.1)	12 (16.9)	9 (12.7)	0.311
MOFETILMICOPHENOLATE	2 (2.8)	2 (2.8)	7 (9.9)	0.044
PREDNISONE	48 (67.6)	41 (57.7)	35 (49.3)	0.056
METHYLPREDNISOLONE	16 (22.5)	6 (8.5)	0 (0)	0.001

Table 1: Medication use at baseline, 6 and 12 month visits of patients with SLE

Conclusion: In the first year of lupus treatment, the decrease in lupus disease activity was significant in most of the patients. The organs with the highest persistence of activity were: renal, hematological and neuropsychiatric.

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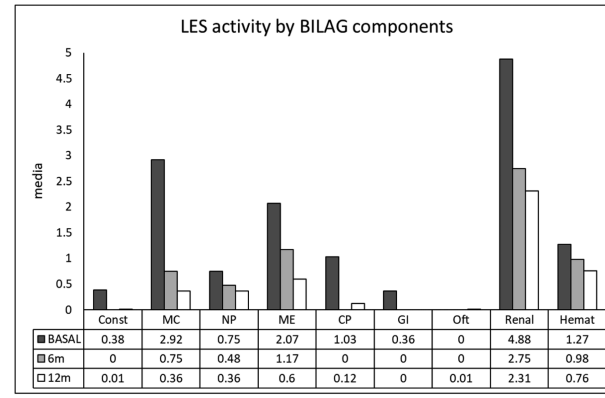

Fig. 1: SLE activity by numerical BILAG by components. Const: constitutive, MC: mucocutaneous, NP: neuropsychiatric, ME: musculoskeletal, CP: cardiopulmonary, GI: gastrointestinal, Oft: ophthalmological, Hemat: hematological.

PANLAR2021-ABS-1182

NEW ONSET SYSTEMIC LUPUS ERYTHEMATOSUS IN PREGNANT PATIENTS

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Objectives: To study the clinical features and pregnancy outcomes of patients with new-onset systemic lupus erythematosus (OSLE) during pregnancy or puerperium.

Methods: Medical records review study of OSLE patients, who were cared for at 3 Maternity Hospitals in Argentina in the last 5 years and fulfilled ACR 1997 criteria. Demographic, clinical, and laboratory data were collected. The presence of Antiphospholipid Syndrome (APS) and the Antiphospholipid antibodies (AAF), and maternal and fetal outcome were evaluated. Lupus activity was evaluated by SELENA SLEDAI at the conception and each trimester of pregnancy and puerperium.

Results: 22 OSLE patients were included. Clinical and Immunological features are shown in Table 1. 15 patients developed renal involvement during pregnancy, 12 renal biopsies were performed in the puerperium. 9 (75%) were Class IV, 1 (8.33%) class III, 1 (8.33%) class V and 1 was not available. 2 patients had arterial hypertension, 4 hypothyroidism and 1 pulmonary hypertension.

Mean platelet count was 130000/mm3 (60000-250000), creatinine level 0,80 mg/dl (0,60-1,30), Uric acid 4,50 mg/dl (4,20-5,10) and 24 urine protein 3600 mg/24 h (1500-4500).

All 22 had positive antinuclear antibodies, 6 had anti-Sm, 11 anti-Ro, 4 anti-La, 4 anti-RNP, 6 ACL and 4 LA. 15 had positive anti ds-DNA, mean C3 level was 60 mg/dl (50-74) and mean C4 was 9 mg/dl (6-10). 5 patients developed renal failure and 1 patient had gestational diabetes. Maternal complications were: 2 HELLP, 2 Premature Membrane Rupture and 1 Abruptio placentae. Arterial and venous thrombosis, infection and maternal mortality were not found.

Treatment was started in 13 patients in the second trimester, 6 in the third trimester, 2 in the first trimester, and 1 in the puerperium. 21 patients (95,45%) received corticosteroids with mean dose of prednisolone of 30 mg/d (20-60) and 15 methylprednisolone pulses. 21 patients (95.45%) were treated with hydroxycloroquine, 11 (50%) with azathioprine, 16 (72.72%) with low dose aspirin, 12 (54.54%) with low molecular weight heparin. Pregnancy outcomes included: 20 live births, 2 (10%) fetal deaths. Neonatal lupus was not found. Maternal and fetal outcomes are shown in Table 2.

Conclusion: OSLE is a clinical challenge and requires a high clinical suspicion. OSLE was diagnosed mainly in the second trimester, typically with cutaneous, renal and hematological manifestations, that may mimic and coexist with

Table 1. Clinical Features

Variables	N= 22
Age at diagnosis (mean years)	26,50 (22.00-33.00)
Mestizo Ethnicity (*n, %*)	9/12 (75)
1º trimester diagnosis (*n, %*)	4 (18.18)
2º trimester diagnosis (*n, %*)	15 (68.18)
3º trimester diagnosis (*n, %*)	3 (13.63)
Cutaneous (*n, %*)	18 (81.81)
Renal (*n, %*)	15 (68.18)
Hematological (*n, %*)	15 (68.18)
Arthritis (*n, %*)	14 (63.63)
Serositis (*n, %*)	7 (31.81)
High SLEDAI (*n, %*)	14/18 (77.77)

Table 2. Maternal and Fetal Outcome

Variables	N= 22
Preeclampsia (*n, %*)	13/21 (61.9)
IUGR (*n, %*)	11/20 (55)
Fetal Death (*n, %*)	2 (9.09)
Premature Birth (*n, %*)	10/20 (47.61)
Cesarean Section (*n, %*)	16 (72.72)
Weight at Birth (Mean grs)	2175 (1700-2350)
Low weight at birth (*n, %*)	16/20 (80)

other pregnancy related diseases. Early diagnosis and treatment are important in order to prevent maternal and fetal morbidity and mortality.

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PANLAR2021-ABS-1228

LUPUS NEPHRITIS AND COVID-19 INFECTION

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Objectives: Covid-19 infection poses a serious challenge for immune-compromised patients with inflammatory autoimmune systemic diseases. This is likely due to a combination of immune dysfunction, immunosuppressive therapy and excess co-morbidities. [1, 2] The aim of this study is to describe clinical characteristics of patients with lupus nephritis (LN) and Coronavirus disease 2019 (COVID-19), and to identify baseline variables associated with a severe infection requiring hospitalization.

Methods: A telephone survey investigating the impact of COVID-19 on patients with biopsy - proven LN was administered. Data extraction included diagnosis, disease activity status, demographics, occupational exposure, adherence to social distancing advise, therapy, comorbidities, and laboratory tests. COVID-19 was classified as definite diagnosis of COVID-19 disease: presence of symptomatic COVID-19 infection, confirmed by nasopharyngeal SARSCoV-2 polymerase chain reaction test. Comparisons between patients with or without hospitalization were performed.

Results: 114 patients (median age 34,9 ± 12,4 years) with LN were included in the study. 31 patients (26 women, 5 men) developed at least one symptom (flu-like symptoms, chest pain, fever, asthenia, chills, cough, sore throat, dyspnea, headaches, arthromyalgias, odynophagia, diarrhea, conjunctivitis, hypo-, ageusia, hypo-, anosmia) of COVID-19 and were PCR test positive. 31 patients were treated with methylprednisolone, 21 - with hydroxychloroquine, 8 - with azathioprine, 4 - with cyclophosphamide prior to their COVID-19 illness.

Conclusion: Covid-19 is more frequent in the subgroup of LN patients without therapy with hydroxychloroquine, which might play some protective role against the most harmful manifestations of COVID-19. Six patients required hospitalization - these were more frequently men, older and with comorbidities (lung diseases, hypertension) and active LN (3 - class IV LN, 2 - class V LN, 1 - class III LN and 1 - class II LN, according the 2003 ISN/RPS classification). Male sex, previous lung disease, serum creatinine level, proteinuria, glucocorticoids use >5 mg/day, were significantly associated with hospitalization.

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PANLAR2021-ABS-1151

ARE THERE IMMUNOHISTOCHEMICAL MARKERS IN BIOPSIES OF CUTANEOUS LUPUS THAT WOULD INDICATE A TENDENCY TOWARDS SYSTEMIC INVOLVEMENT?

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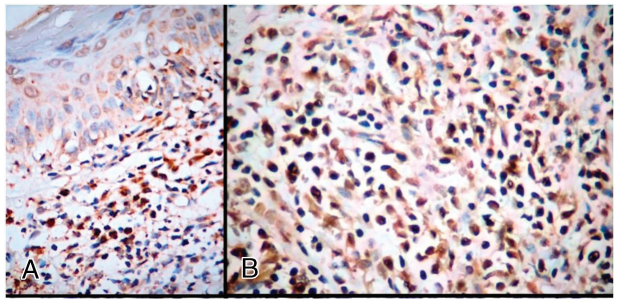
Objectives: To investigate if a tendency to progress to systemic lupus erythematosus (SLE) can be suspected histologically, we compared immunohistochemical results in skin biopsies of cutaneous LE (CLE) patients with- and without systemic involvement.

Methods: Immunohistochemical markers (Fig. 1) for inflammatory (IL-1β, IL-6, IL-17, IL-18), and anti-inflammatory (IL10) cytokines were applied to skin biopsies of 59 patients with discoid-, subacute lupus and lupus tumidus. They were included if complete medical records were available, the diagnosis

was confirmed by clinical and histological examination, including direct immunofluorescence, when indicated. The images were analyzed according to Popovic et. al. method[1]. For the diagnosis of SLE, patients were classified by the American College of Rheumatology (ACR-82) and the Systemic Lupus International Collaborating Clinics (SLICC-12) systems[2].

Results: As classified by either system (Table 1 - Fig. 2), In SLE patients, there was higher expression of IL-1β, as compared with patients without systemic features, and those with purely cutaneous involvement expressed IL-17 more intensely. No other significant results were found. Macrophages secrete IL-1β through different stimuli, especially IFN-α, which correlates with systemic symptoms in patients with SLE[3]. Patients with disseminated CLE lesions, prone to evolve to SLE, have increased serum levels of IFN type I[4].



Immunohistochemical findings: A- IL-1β ; B-IL-17 (A: LES patient; B: patient with purely cutaneous lesions). Original magnification x400.

Table - Immunohistochemical differences between patients with- and without systemic involvement.

	P (ARC-82) *	P (SLICC-12)*
	CLE with SLE	
IL-1β	0,024	0,0143
	CLE without SLE	
IL-17	0,0003	0,0351

*Fisher exact test

ARC= *American Rheumatology College;* SLICC= *Systemic Lupus International Collaborating Clinics*

Conclusion: Higher expression of IL-1β and IL-17 in cutaneous lupus lesions might help, together with clinical data, to identify patients with a more serious evolution. Anti-IL-17 medications could be effective for patients with purely CLEs lesions. Yet there are some reports about secukinumab as a cause of subacute CLE[5].

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PANLAR2021-ABS-1292

CUTANEOUS MANIFESTATIONS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: FORMS AT THE ONSET OF THE DISEASE AND DURING FOLLOW-UP

Máximo Cosentino, Maria Victoria Martire, Lucila Garcia, and Mercedes Garcia.

Objectives: To describe the skin involvement in patients with SLE at onset and during follow-up. Determine factors associated with the presence of SI at diagnosis.

Methods: Medical records review, analytical, single-center study in patients diagnosed with SLE (ACR 1982-1997 or SLICC 2012 criteria) in the service during the years 2000-2020, older than 18 years. The modified Gilliam classification was used to describe skin involvement. Descriptive statistics and bivariate and multivariate analysis were performed to evaluate the factors associated with skin involvement at diagnosis.

Results: 149 patients were included, 91.3% were women and the median age at diagnosis 33 (C25-75: 22-45.5) years. The median SLEDAI at disease onset was 9 points (6-14). 100% positive ANA, Anti-Ro 53/142 (37.3%), anti-Sm 59/142 (41.5%) and anti-RNP 50/138 (36.2%). Cutaneous involvement at the onset of the disease was observed in 125 patients (83.9%), followed by arthralgias (69.1%), arthritis (52.3%) and constitutional dominance (45.6%). Non-specific skin lesions of LE were more frequent than specific ones in 90.4% versus 66.4%, respectively. Table 1 shows the types of skin involvement at the onset of the disease. During follow-up, 4/24 patients who had not presented with skin involvement at diagnosis and 51/125 patients who did present, had at least one new skin episode (range: 1-5 outbreaks). In the bivariate analysis, delayed diagnosis, the presence of joint involvement, thrombocytopenia, and a higher SLEDAI score were associated with the presence of skin involvement at disease onset. In the multivariate analysis, the variable that remained independently associated was joint involvement (OR 2.8-95% CI 1.1-7.5, p: 0.04).

Types of skin compromise at debut (n: 125)	
LE specific skin lesions	83 (66.4%)
- LECA	79 (63.2%)
○ Malar rash	73 (58.4%)
○ Generalized erythema	13 (10.4%)
- LECSA	2 (1.6%)
- LECC	6 (4.8%)
LE non-specific skin lesions	113 (90.4%)
- V. leukocytoclastic	5 (4%)
- Vasculopathy	7 (5.6%)
- Livedo reticularis	18 (14.4%)
- Raynaud´s phenomenon	47 (37.6%)
- Mucous ulcers	46 (36.8%)
- Alopecia	76 (60.8%)

Conclusion: Cutaneous involvement was more frequent than joint involvement at the onset of the disease in our population, and it presented a significant association with joint involvement, which could determine a phenotype in patients with SLE.

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PANLAR2021-ABS-1388

OXIDATIVE STRESS IN MEXICAN ADULTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: RELATIONSHIP TO DISEASE ACTIVITY

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Objectives: To establish whether there is a correlation between oxidative stress levels and disease activity in women with SLE and to compare their behavior between active and inactive groups and a control group.

Methods: 78 women were recruited, 52 of them with ACR / EULAR 2019 classification criteria for SLE, and 26 women in the control group. Disease activity was classified as active and inactive according to SLEDAI. Oxidative stress was based on the measurement of antioxidants: superoxide dismutase (SOD), glutathione (GSH), vitamin C, and oxidants: nitric oxide (NOX), malondialdehyde (MDA), advanced glycation end-products (AGEs), and advanced oxidation protein products (AOPPs).

Results: In patients with active SLE, significantly elevated levels of NOX and AOPPs (3.13 ± 1.32 uM and 58.3 ± 16.2 uM, respectively) were found in comparison with inactive SLE and controls. We also found an elevation in SOD with active SLE (51.4 ± 8.79% IDP) and GSH in higher amounts, vitamin C without significant differences.

Conclusion: Patients with active SLE have higher amounts of oxidants compared to patients with inactive lupus and the apparently healthy group. Conversely to what was reported in other studies, antioxidant levels (SOD and GSH) were higher in the active SLE group.

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PANLAR2021-ABS-1241

IMPACT OF THE ANTIPHOSPHOLIPID ANTIBODY PROFILE IN DAMAGE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To evaluate the impact of the antiphospholipid antibodies (aPLs) profile in Systemic Lupus Erythematosus (SLE) damage.

Methods: A medical records review analysis of the patients with diagnosis of SLE, who were entered into the Argentine Registry of Antiphospholipid Antibodies was performed. The following domains were evaluated: sociodemographic, clinical, serological, activity of the SLE by Systemic Lupus Erythematosus Disease Activity Index (SLEDAI), and damage measured by the SLICC Damage Index (SDI). The distribution of categorical variables was analyzed with frequency and percentages by the test Chi-square or Fisher. Continuous variables were summarized as mean and standard deviation (SD) or with median and interquartile range (IQR). The comparison between groups was analyzed with the Wilcoxon test and Kruskal Wallis test. The conclusions were obtained with a level of significance of 5%.

Results: Of the 238 patients included in the registry, 72 (30.3%) met classification criteria for SLE and were included in this analysis, 58 (80.6%) women, with a mean age of 39.4 (SD 12.3) years. A total of 44 (61.1%) patients meet Sydney Classification Criteria for Syndrome Antiphospholipid (APS) (26 thrombotic, 6 obstetric, and 12 thrombotic and obstetric). Regarding the aPLs profile, 15 (20.8%) presented triple positivity, 4 (5.6%) double positivity, and 22 (30.6%) were simple positive. We found 18 (25%) patients who did not meet the serological tests for APS (Incomplete aPLs) Sydney criteria, and 13 (18.0%) could not be classified because they had only one aPL determination. Fifty (69.4%) patients had organ damage accrual (68% was moderate (SDI = 1-2), and 32% severe SDI > 2), with a median SDI equal to 1 (IQR 2). Table 1. Patients with organ damage had more frequently dyslipidemia, longer disease duration and were treated with oral anticoagulants. No statistically significant difference was found between damage, SLE activity, or Global Adjusted Antiphospholipid Syndrome Score (aGAPSS) and aPLs profile. Table 2.

	Triple/double positivity	Simple positivity	Incomplete aPLs
SDI =0	5 (26.3%)	9 (40.9 %)	4 (22.2%)
SDI≥ 1	14 (73.7%)	13 (59.1%)	14 (77,8 %)

	SDI 0 (n=22)	SDI 1-2 (n=34)	SDI >2 (n=16)	P
Age, median (IQR)	36.5 (13.8)	39 (26)	45.5 (16.8)	0.27
Arterial hypertension, N (%)	6 (27.3)	13 (38.2)	5 (31.2)	0.85
Dyslipidemia, N (%)	1 (4.5)	6 (17.6)	7 (43.8)	0.01
Diabetes, N (%)	0 (0)	2 (5.9)	0 (0)	0.71
Obesity, N (%)	3 (13.6)	5 (14.7)	4 (25)	0.39
Smoking , N(%)	5 (22.7)	8 (23.5)	2 (12.5)	0.24
Sedentary lifestyle, N (%)	5 (31.2)	12 (35.3)	3 (13.6)	0.25
SLEDAI median (IQR)	2 (5.5)	2 (6.5)	4 (4)	0.99
aGAPSS (IQR)	5 (5.75)	8.5 (9)	5.5 (4.25)	0.25
Age disease (IQR)	5.0 (8.0)	6.0 (8.0)	16.0 (16.0)	0.03
Prednisona, N (%)	18 (81.8)	28 (84.8)	14 (87.5)	0.87
Aspirin, N (%)	14 (63.6)	26 (78.8)	10 (62.5)	0.33
Acenocumarol, N(%)	5 (22.7)	15 (45.5)	12 (75)	<0.001
Hydroxychloroquine, N(%)	21 (100.0)	33 (100.0)	16 (100.0)	-
Heparin, N (%)	16 (72.7)	20 (58.8)	6 (37.5)	0.09
Others immunosuppressants N(%)	10 (45.5)	25 (73.5)	9 (56.2)	0.07

Conclusion: The presence of organ damage was identified in approximately 70% of patients with SLE and aPLs positivity. The possible role of APLs in the development of damage highlights the importance of assessing the aPL profile in these patients.

PANLAR2021-ABS-1397

PERINATAL OUTCOMES AND COMPLEMENT LEVELS IN MEXICAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND ANTIPHOSPHOLIPID SYNDROME

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Objectives: The objective of this study was to evaluate the relationship between adverse perinatal outcomes (APOs) and the levels of C3 and C4 complement in Mexican patients with SLE or APS.

Methods: We conducted a descriptive, medical records review study in patients from the clinic of pregnancy and rheumatic diseases of the University Hospital "Dr. José Eleuterio González". All pregnant patients with SLE or APS evaluated from August 2017 to October 2020 with at least one measurement of C3 and C4 during pregnancy were screened. APOs evaluated were: abortion or stillbirth, preterm birth, intrauterine growth restriction, and low birth weight.

Results are shown as descriptive statistics; binary logistic regression was used to evaluate the association between levels of complements and APOs.

Results: Twenty-eight pregnant women with SLE or APS were identified; levels of complement were available from 17 patients, 11 (64.7%) had SLE and 6 (35.3%) had APS. The characteristics and perinatal outcomes are shown in table 1. Six (35.3%) patients had an adverse outcome. Higher levels of C3 (>120 mg/dL) were more frequent in patients without APOs (63.6% vs. 33.3%, P = .334). Lower levels of C4 (<20 mg/dL) were more frequent in patients who had an adverse outcome (83.3% vs. 36.4%, P = .131) (Table 2). Hazard ratio of low level of C4 for APOs was 8.75 (95% C.I. 0.737103.823, P = .086).

	N= 17
Age, mean SD	27.9 ± 5.7
Diagnosis, n (%)	
Systemic lupus erythematosus	11 (64.7)
Antiphospholipid syndrome	6 (35.3)
Previous Pregnant, n (%)	
Primigravid	5 (29.4)
Successful outcome	6 (35.3)
Adverse outcome	6 (35.3)
Previous fetal loss, n (%)	5 (29.4)
Treatment with ASA, LMWH monotherapy or combination, n (%)	7 (41.2)
Adverse perinatal outcome, n (%)	6 (35.3)
Preterm birth	5 (29.4)
Intrauterine growth restriction	1 (5.9)
Low birth weight	4 (23.5)

Table 1. Clinical characteristics and perinatal outcomes of women with systemic lupus erythematosus and antiphospholipid syndrome.
ASA: acetylsalicylic acid; LMWH: low molecular weight heparin

Conclusion: Lower levels of C4 complement were more frequent in patients with SLE or APS who had APOs, and higher levels of C3 complement were more frequent among patients without APOs although these differences were not statically significant.

	No adverse outcome N= 11	Adverse outcome N= 6	P*
Level of C3, mg/dL, mean (SD)	130.71 (27.97)	113.83 (34.32)	.289
<50 mg/dL, n (%)	-	-	-
50-120 mg/dL, n (%)	4 (36.4)	4 (66.7)	.335
>120 mg/dL, n (%)	7 (63.6)	2 (33.3)	.335
Level of C4, mg/dL, median (IQR)	22.35 (11.10-30.87)	12.43 (10.76-19.20)	.301
<20 mg/dL, n (%)	4 (36.4)	5 (83.3)	.131
20-50 mg/dL, n (%)	7 (63.6)	1 (16.7)	.131
>50 mg/dL, n (%)	-	-	-

Table 2. Complement levels and perinatal outcome.
*T-test, Mann-Whitney U test or Fisher's exact test were used to compare groups.

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PANLAR2021-ABS-1117

PERIPHERAL BLOOD CELL RATIOS AS PREDICTIVE MARKERS OF SYSTEMIC LUPUS ERYTHEMATOSUS DISEASE ACTIVITY: NLR AND NC3R

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Objectives: Our aim was to describe the prognostic value of hematological parameters for predicting severe systemic lupus erythematosus (SLE) disease activity.

Methods: A cross-sectional study was conducted in patients admitted to Luis Vernaza Hospital from January 2015 to December 2019. SLE patients who required hospitalization for any cause were enrolled. We used the SLEDAI score ≥ 11 to classify all subjects into two groups: low activity (group 1) and high activity (group 2). Neutrophil-to-lymphocyte ratio (NLR) and neutrophil-to-C3 ratio (NC3R) were calculated and analyzed in the logistic regression model to predict LES severity.

Results: 108 patients were enrolled. 97 (89.8%) were females, 77 (71.3%) were classified as having a high activity disease at admission, and 30 (27.8%) required subsequent ICU admission. The median age was 32.84 ± 13.9 years. Group 2 patients had significantly lower C3 and C4 levels (p: 0.000, and p: 0.005, respectively), but they had a greater total neutrophil count, NLR, and NC3R (p: 0.020, p: 0.012, p: 0.000, respectively) compared to group 1. In the regression model, we found that both NC3R and NLR increase the risk for high SLEDAI scores (OR: 1.015, 95% CI: 1.006-1.025, p: 0.001, and OR: 1.108, 95% CI: 1.011-1.214, p: 0.028, respectively). After we adjusted the results by hospital stay length only NC3R remained significant (OR: 1.011, 95% CI: 1.002-1.020, p: 0.016). Theae data are presented in Tables 1 and 2.

Conclusion: NLR and NC3R are widely available markers. Daily clinical workflow and medical evaluation during urgent visits involving assessment of SLE activity could include measurement of NLR and NC3R to predict high SLEDAI scores in patients with SLE requiring hospitalization for any cause. In hospitalized patients with high SLEDAI scores, NC3R remained statistically significant in multivariate regression adjustment. Our findings need to be analyzed using larger cohorts to truly assess its usefulness as a high SLEDAI score predictor. Further studies should account for a comparative analysis of the indicators in question regarding organ damage in SLE.

Table 1. Hematological indicators and disease activity parameters differences among group 1 and group 2

Variable	Group 1 Low SLEDAI N=31	Group 2 High SLEDAI N=77	*p* value
Females	28 (90.3)	69 (89.6)	0.912
Age, years	35.06±15.68	31.95±13.12	0.333
Hospital stay length, days	12.87±16.89	31.25±27.55	**0.000**
Comorbidities			
HTN	3 (9.7)	13 (16.9)	0.400
DM	1 (3.2)	2 (2.6)	0.655
In-hospital mortality	0	10 (13)	0.035
ICU	3 (9.7)	27 (35.1)	**0.008**
SLEDAI score	8.13±2.02	18.18±5.52	**0.000**
ANA positive	15 (48.4)	44 (57.1)	0.408
Leukocytes (x10³/mm³), mean ± SD	6.88±3.68	9.26±6.91	0.051
Neutrophil (x10³/mm³), mean ± SD	5.05±2.92	7.46±6.41	0.020
Lymphocyte (x10³/mm³), mean ± SD	1.29±0.81	1.12±0.71	0.251
Hemoglobin (gr/dL), mean ± SD	9.84±2.82	9.64±2.22	0.693
Platelets (x10³/mm³), mean ± SD	237±130	215±134	0.441
NLR	5.16±4.22	9.17±8.83	**0.012**
NC3R	75.48±53.03	196.35±334.37	**0.000**
C3	76.26±32.40	54.58±31.38	**0.000**
C4	13.41±7.68	9.25±7.41	**0.005**
ESR	27.33±21.36	31±26	0.743
Anti-dsDNA	85.43±100.72	137.14±203.65	0.171
Creatinine	0.71±0.459	1.50±2.04	0.022

ANA, antinuclear antibodies; DM, diabetes mellitus type 2; HTN, hypertension; ICU, intensive care unit; NC3R, neutrophil-to-C3 ratio; NLR, neutrophil-to-lymphocyte ratio; SLEDAI, systemic lupus erythematosus disease activity score; ESR: erythrocyte sedimentation rate; Anti-dsDNA: anti-dsDNA antibodies.

Table 2. Predictors for systemic lupus erythematosus disease activity

	Univariate			Multivariate*		
	OR	95% CI	*p* value	OR	95% CI	*p* value
NLR	**1.108**	**1.011-1.214**	**0.028**	1.086	0.987-1.194	0.091
NC3R	**1.015**	**1.006-1.025**	**0.001**	**1.011**	**1.002-1.020**	**0.016**

NC3R, neutrophil-to-C3 ratio; NLR, neutrophil-to-lymphocyte ratio.
*, adjusted by: hospital stay length.

PANLAR2021-ABS-1283

PREDICTIVE FACTORS FOR THE DEVELOPMENT OF LUPUS NEPHRITIS AFTER THE DIAGNOSIS OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To determine predictive factors present at the onset of systemic lupus erythematosus (SLE) that are associated with the development of lupus nephritis during the course of the disease.

Methods: Patients with a diagnosis of SLE without lupus nephritis at diagnosis were compared to a group that developed nephritis during their disease course. Sociodemographic, clinical, humoral, and immunological characteristics were compared between the two groups. Variables included the albumin-globulin ratio (AGR), calculated as albumin / total protein - albumin. To identify predictive factors of LN, a multivariate binary logistic regression analysis was performed.

Results: Of 595 patients, 471 did not develop lupus nephritis and 124 did develop LN during the course of their disease. Multiple significant variables associated with the development of lupus nephritis were found in the univariate analysis: smoking, presence of oral ulcers, serositis, more than four classification criteria, abrupt onset of the disease, higher SLEDAI value, low SAR, low C_3 levels, high titers of anti-double-stranded DNA, anti-nucleosomes, and positive immunofluorescence in healthy skin. In the multivariate analysis, predictive factors for developing nephritis were: elevated serum levels of anti-ds DNA antibodies (Wald 29.823, $p < 0.0001$, Exp (β) 15, 829), decreased C_3 (Wald 34.619, $p < 0.0001$, Exp (β) 36, 504) and the RAG<1 Wald 38, $p < 0.0001$, Exp (β) 47.582). Low AGR was the major predictor of nephritis during the course of the disease.

Conclusion: Clinical, humoral, immunological variables and the smoking were associated with the risk of developing nephritis on univariate analysis, but on multivariate analysis, only high titers of anti-double-stranded DNA, low values of C_3 and a value less than one of the AGR.

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1. Speyer CB, Costenbader KH. Cigarette Smoking and the Patogenesis of Systemic Lupus Erythematosus. Expert Rev Clin Immunol. 2018; 14(6): 481-7.

2. Barbhaiya M, Tedeschi SK, Lu B, Malspeis S, Kreps D, Sparks JA, et al. Cigarette smoking and the risk of systemic lupus erythematosus, overall and by anti-double stranded DNA antibody subtype, in the Nurses' Health Study cohorts. Ann Rheum Dis 2018,77(2): 196-202.

PANLAR2021-ABS-1289

FREQUENCY, TREATMENT AND EVOLUTION OF PATIENTS WITH REFRACTORY LUPUS NEPHRITIS IN ARGENTINA

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Objectives: 1. to analyze the frequency of refractory LN, 2. to describe the second line of treatment and their evolution.

Methods: A medical records review study was carried out in the SLE study group of the Sociedad Argentina de Reumatología (SAR). Adult patients with LN were included. At month 0, 6 and 12 after second line therapy, SLEDAI and SDI scores, doses of corticosteroids and laboratory parameters were evaluated.

Results: 14.2% of cases (14/98) had refractory LN. First line therapy was corticosteroids. The second line of treatment used was MMP plus calcineurin inhibitors in 5 patients (33.3%), extensive CYC treatment in 5 cases, rituximab in 13.3% and rituximab combined with MMP and CYC in one patient, respectively.

When second line therapy was initiated, mean SLEDAI was 14.5 points (SD: 6) with improvement at month 6 (8 [SD:4.7], $p = 0.01$) and 12 (3.9 [SD: 3.3], $p = 0.0001$). Mean prednisone doses used at month 0, 6 and 12 was

27.6 mg/day (SD: 14.9), 12 mg/d (SD: 6.1, p = 0.004) and 5 mg/d (SD: 4.4, p = 0.0001), respectively. 83.3% of patients had an active urine analysis (U/A) 36.3% had an active U/A after one year (p = 0.02) and mean proteinuria was 3.9 g/day, and improved at month 6 and 12 (p = 0.003).
Conclusion: The frequency of refractory LN was 14.2%. Only four patients had no response to second line treatment and two cases needed dialysis.

PANLAR2021-ABS-1299

DESCRIPTION OF A COHORT OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN TWO UNIVERSITY HOSPITALS AND COMPARISON WITH THE GLADEL AND LUMINA COHORTS

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Objectives: Systemic lupus erythematosus (SLE) is a multisystemic autoimmune disease that predominantly affects women (prevalence for Colombia of 91.9/100,000 people). The Latin American population has particular sub-phenotypes (i.e. lupus nephritis is the earliest involvement). The objective of this study is to describe the clinical characteristics of a cohort of Colombian patients and compare them with the GLADEL and LUMINA cohorts.
Methods: A medical records review descriptive study was carried out. Data were collected from patients (inpatient and outpatient setting) at two hospitals in Bogotá, Colombia. A comparison was made with patients from the GLADEL and LUMINA Cohorts.
Results: 146 patients from the 2 centers were included. Females with a median age of 36 years predominated. The main clinical and laboratory characteristics are shown in table 1. 19.7% of patients had arterial hypertension and 17.9% had current or previous cigarette exposure. Polyautoimmunity was found in 57 patients (39%), the most frequent was antiphospholipid antibody syndrome followed by rheumatoid arthritis and Sjögren's syndrome (multiple autoimmune syndrome was present in 10 patients). Familial autoimmunity was found in 17.8% of the sample.

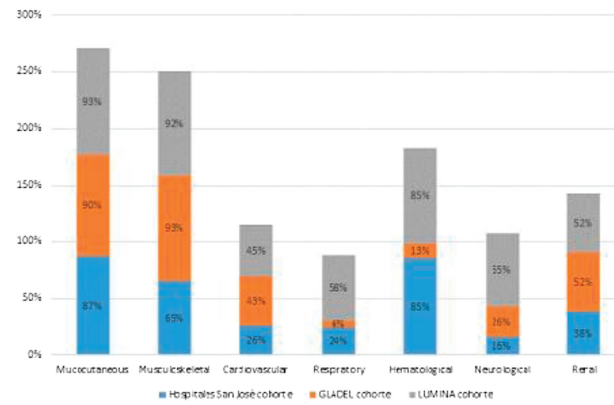
The data corresponding to each cohort is shown in Table 1. Our cohort had the longest duration of disease. Treatment is similar in the compared groups, although in the LUMINA cohort no data was available on the use of chloroquine, the main antimalarial drug used in our patients. Regarding specific antibodies, LUMINA had a lower presence of anti-Smith and antiphospholipid antibodies. Regarding clinical manifestations, mucocutaneous involvement was the most frequent in all 3 cohorts (figure 1) while hematological compromise was lower in GLADEL cohort. There was a higher proportion of renal and neurological manifestations in the LUMINA cohort.

Table 1. Description of the cohorts

Characteristics	Colombian Cohort % (n=146)	GLADEL Cohort % (n=1214)	LUMINA Cohort % (n=229)
Gender			
Female	82.2	89.9	88
Male	17.8	10.1	12
Age yr*	38.3 (14.1)	11 a 40 años	37.3 (12.8)
Age at diagnosis*	30.9 (13.4)	30 (12)	NA
Duration of disease (months)*	90.4 (84.6)	32 (0.9-534)**	20 (17)
Treatment			
Corticosteroids	87.6	91.8	75
Chloroquine	68.75	46.5	NA
Hydroxychloroquine	31.6	34.5	45
Azathioprine	51.45	19.8	7
Cyclophosphamide	25.17	31.3	16
Antibodies			
ANAs	92.4	97.9	96.1
dsDNA	56.49	70.5	35.8
Anti SM	39.5	48.4	6.4
Antiphospholipid antibodies	30.1	41.02	8.3
Complement			
Low C3	63.7	49.2	NA
Low C4	64.4	53.7	NA

*mean (Standard deviation) ** Median (range) NA: Not available

Figure 1. Clinical manifestations



Conclusion: The demographic characteristics of the 3 groups are similar, however, we found differences in the use of medications, antibody profile and clinical manifestations. In addition, we report important additional data such as comorbidities and polyautoimmunity. This study shows that despite regional proximity and social and cultural similarities, we cannot homogenize our patients since the differences can positively or negatively impact the course of the disease.

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PANLAR2021-ABS-1303

DIFFERENCES BETWEEN MACROPHAGE ACTIVATION SYNDROME (MAS) AND NON-MAS HEMATOLOGICAL MANIFESTATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS: A CASE-CONTROL STUDY

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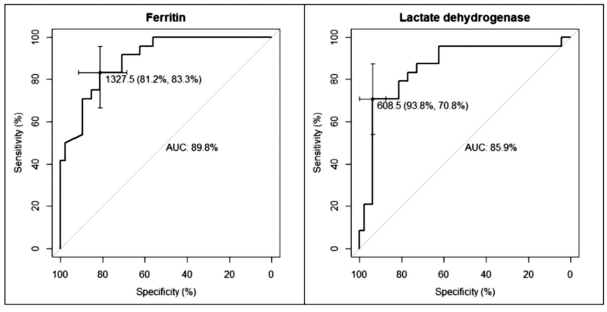
Objectives: Macrophage activation syndrome (MAS), a rare but potentially fatal hematological complication in patients with systemic lupus erythematosus (SLE), is characterized by prolonged fever, pancytopenia, hepatosplenomegaly, liver dysfunction and coagulopathy.[1] MAS can be underdiagnosed or misdiagnosed as a hematologic SLE manifestation. However, to our knowledge, there are no studies that establish differences between MAS and non-MAS hematological manifestations in SLE patients.
Methods: A case-control study that enrolled patients between 2012 and 2020 was conducted in a single-center. Twenty-four SLE patients with MAS (cases) were matched with 48 SLE patients with non-MAS hematological manifestations (controls). Descriptive, comparative, logistic regression and predictive capacity analyses were performed.
Results: MAS patients had a median age of 25 years, 25.0% were male, all of them received intravenous steroids, 79.2% received other immunosuppressants and eight (33.3%) patients died due to MAS. Patients with MAS had more anemia (8.6 vs 9.8 g/L, p = 0.038), leukopenia (2700 vs 7500, p = 0,001), thrombocytopenia (108000 vs 203000, p = 0.017), hyperferritinemia (2050 vs 272 ng/mL, p < 0.001), higher values of lactate dehydrogenase (LDH) (714.5 vs 274, p < 0.001), C3 hypocomplementemia (36.5 vs 62.5 mg/dL, p = 0.014), less renal disease (54.2 vs 19.2%, p = 0.028) and less vascular compromise (20.8 vs 52%, p = 0.011) than those with non-MAS hematological SLE. Moreover, MAS patients had higher mortality (33.3% vs 12.5%, p = 0.035), and a 3.5-fold increased risk of death. When assessing MAS prediction, high ferritin levels showed an area under the curve (AUC) of 0.898 with a cut-off point of 1327.5 ng/mL (sensitivity: 81.2%, specificity: 83.3%), while high LDH levels showed an AUC of 0.859 and with a cut-off point of 608.5 U/L (sensitivity:

93.8%, specificity: 70.8%). These data are presented in Tables 1 and 2.
Conclusion: MAS patients are at increased risk of death, have lower blood cell counts and higher ferritin and LDH levels than patients with non-MAS

Table 1: Characteristic comparations of the patients

Variable	Non-MAS-Hematological activity	MAS	p-value
Age (years)	26.5 (20.5 – 33)	25 (17.5 – 50)	0.6072
Sex			0.1800
Female	42 (87.5%)	18 (75%)	
Male	6 (12.5%)	6 (25%)	
Hemoglobin (g/L)	9.8 (7.8 – 12.1)	8.6 (7.5 – 99.9)	**0.0388**
Leukocyte (cell/mm3)	7500 (3735 – 10100)	2700 (1550 – 5800)	**0.0010**
Neutrophil (cell/mm3)	5650 (2450 – 8250)	1800 (900 – 3650)	**0.0005**
Lymphocyte (cell/mm3)	800 (550 – 1200)	800 (471 – 1100)	0.4988
Platelets/uL	203 (104 – 267)	108 (42 – 161)	**0.0174**
CRP (mg/L)	2.72 (0.68 – 7.2)	3.21 (1.23 – 9,45)	0.5266
Ferritin (ng/mL)	272 (138 – 1067)	2050 (1482 – 7921)	**<0.0001**
ESR (mm/hour)	44 (18.5 – 74)	66.5 (40.5 – 116)	0.0928
Lactate dehydrogenase (U/L)	274 (219 – 376.5)	714.5 (471 – 943)	**<0.0001**
C3 (mg/dL)	62.5 (40.5 – 83.5)	36.5 (28 – 67.5)	**0.0145**
C4 (mg/dL)	10.1 (4.7 – 19.2)	8.4 (4.6 – 13.1)	0.4535
Anti-dsDNA	23 (60.5%)	15 (62.5%)	0.8760
Anti-Sm	21 (58.3%)	16 (66.7%)	0.5150
Anti-RNP	21 (58.3%)	15 (65.2%)	0.5970
Anti-La	4 (11.1%)	7 (30.4%)	0.0630
Anti-Ro	16 (44.4%)	12 (52.2%)	0.5620
Musculoskeletal involvement	37 (77.1%)	14 (58.3%)	0.0990
Serosal involvement	19 (39.6%)	6 (25%)	0.2200
Renal involvement	38 (79.2%)	13 (54.2%)	**0.0280**
Pulmonary involvement	12 (25%)	3 (12.5%)	0.1790
Vascular involvement	25 (52.1%)	5 (20.8%)	**0.0110**
Mucocutaneous involvement	40 (83.3%)	16 (66.7%)	0.1090
Neurological involvement	16 (33.3%)	4 (16.7%)	0.1120
Cardiac involvement	3 (6.25%)	1 (4.17%)	0.5930
Dead	6 (12.5%)	8 (33.3%)	**0.0350**

Graph 1: Ferritin and lactate dehydrogenase predictive capacity of SAM



hematological manifestations. The presence of hyperferritinemia and high LDH levels have a very good discriminative capacity between MAS and non-MAS hematological manifestations in SLE.

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PANLAR2021-ABS-1392

ASSOCIATION OF VITAMIN D RECEPTOR GENE POLYMORPHISMS WITH CLINICAL PHENOTYPES IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS FROM THE PARAGUAY LUPUS COHORT

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Objectives: We analyzed the polymorphisms of the VDR gene, the concentrations of vitamin D and the clinical manifestations.

Methods: A cross-sectional study of genetic association with cases and controls, which includes samples (serum and DNA) stored in the IMID PY BIOBANK was performed. The analysis of samples and data utilized the medical records of patients who met the 2019 EULAR/ACR SLE classification criteria, and healthy normal controls.

Results: Samples of 175 individuals were included, distributed in 100 patients with SLE and 75 healthy normal controls. The distribution by sex in the patients was 88% for women and 12% for men, no significant difference with the controls. The mean age for the patients was 38.71 ± 9.7 years and for the normal controls it was 34.76 ± 8.6 years. In patients, the distribution by clinical phenotypes was: predominantly cutaneous 51%, articular 55%, hematological 14%, renal 34% neurological 5%, cardiac 1%, pulmonary 2%, and more than 1 clinical manifestation 51%. The mean value of the vitamin D concentration was 25.92 ng / ml. A significant difference was found between the means of the patients with renal involvement (p = 0.03). Genotying and phenotyping data are presented in Tables 1 and 2.

Tabla Genotipos de pacientes y controles

SNP	LES: N (%)	Control: N (%)	OR (IC95%)	P-value
rs731236				
A	9 (30%)	14 (28%)	1	0.9812
A/G	17 (56.7%)	29 (58%)	0.91 (0.32 - 2.64)	
G	4 (13.3%)	7 (14%)	0.9 (0.18 - 4.05)	
rs7975232				
A	16 (53.3%)	25 (50%)	1	0.9585
A/C	10 (33.3%)	18 (36%)	0.87 (0.31 - 2.38)	
C	4 (13.3%)	7 (14%)	0.91 (0.2 - 3.61)	
rs2228570				
A	2 (6.7%)	9 (18.4%)	1	0.3401
A/G	12 (40%)	18 (36.7%)	2.8 (0.57 - 22.9)	
G	16 (53.3%)	22 (44.9%)	3.06 (0.65 - 24.3)	

Tabla. Fenotipos clínicos y concentraciones de vitamina D.

Fenotipo clínico	Nivel de Vitamin D
Cutáneo	32,75±12,78ng/mL
Articular	31,78±11,69ng/mL
Renal	29,43±9,47ng/mL
Hematológico	32,95±14,45ng/mL
Otros fenotipos	29,54±14,02ng/mL

Fenotipo renal p≤0,03

Conclusion: No association was found between the VDR gene polymorphisms and the clinical phenotypes of the SLE patient cohort. The most frequent polymorphism found in lupus patients in the Paraguayan cohort was TaqI. No association was found between vitamin D deficiency and clinical phenotypes.

PANLAR2021-ABS-1086

BELIMUMAB IN SYSTEMIC LUPUS ERYTHEMATOSUS: OUR EXPERIENCE SINCE APPROVAL IN A SINGLE TERTIARY HOSPITAL

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Objectives: To describe the efficacy of Belimumab (BLM) in systemic lupus erythematosus (SLE) patients during a 36- month follow-up (1,2).

Methods: We reviewed the medical records of patients with SLE treated with BLM between 2012 and 2020 in the Rheumatology department. We analyzed the following variables: (anti-DNA, C3, C4, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP)), Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and the initial dose of steroids at the beginning and during a 36-month follow-up period of treatment.

Results: 30 patients were included in the study; 90% were female and the mean age was 39.7 years (SD 15.5). The median age from the diagnosis to the beginning of BLM was 4.5 years (IQR 1-9.1). All patients were ANA positive, with median titer of 1/360 (IQR 1/160-1/640). Anti- dsDNA was positive in 16 patients (Table 1). The median number of synthetic DMARDs prior to the

beginning of BLM was 2 (IQR 1-4). 12 patients received biologic DMARDs and 4 patients were treated with a median bolus of 750 mg (IQR 600-900) of cyclophosphamide (CFM) before BLM was initiated. 21 patients were taking prednisone at BLM initiation.

The median BLM bolus received was 270 mg (IQR 100-400). 11 treatments were suspended: 6 due to inefficacy, 2 due to patient withdrawal, 2 due to infections and 1 due to pregnancy.

A lower intake of prednisone ($p < 0.05$) and lower SLEDAI ($p < 0.001$) was observed at 3 and 6 months after BLM respectively (Fig. 1) No significant differences were observed in the rest of analyzed variables.

5 patients had renal involvement; 3 of them, who were treated with Rituximab (RTX) and/or CFM before the beginning of BLM, experienced an improvement after 3 months of BLM (urine proteinuria <0.5gr). 6 out of 14 patients with hematological disorders and 4 out of 18 patients with skin symptoms improved after 5 months of BLM; 10 out of 23 patients with arthritis improved at 6 months. 4 patients had heart disease; none of them improved with BLM.

Table 1. Baseline characteristics.

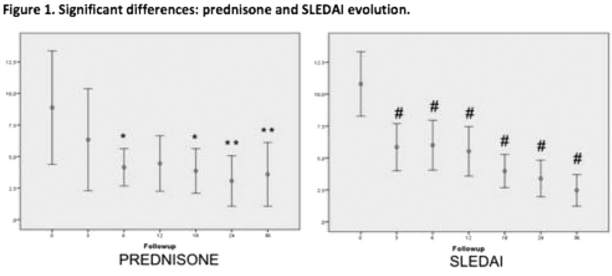
[1]Age at SLE diagnosis (years)	39.7 (15.5)
[1]Age at start of Belimumab (years)	46.3 (13.7)
Sex (female)	27 (90%)
[2]Disease duration	4.5 (1-9.1)
Previous sDMARD	
- Hydroxycloroquine	26
- Methotrexate	17
- Mycophenolate mofetil	9
- Leflunomide	7
- Azatioprine	11
Previous Cyclophosphamide	4
Previous bDMARD	
- Rituximab	10
- Efalizumab	1
- Abatacept	1
Concomitant sDMARD	
- Hydroxycloroquine	22
- Methotrexate	10
- Azatioprine	2
Anti-DNA	16

Disease duration: years from diagnosis to the beginning of the treatment with BLM; sDMARD: synthetic Disease Modifying Anti-Rheumatic Drugs; bDMARD: biologic Disease Modifying Anti-Rheumatic Drugs

[1] Mean (standard desviation).

[2] Median (interquartile range).

Figure 1. Significant differences: prednisone and SLEDAI evolution.



* p<0.05

** p<0.01

# p<0.001

Conclusion: We have shown a statistically significant reduction in the dose of prednisone and an improvement in SLEDAI with BLM. Some patients with lupus nephritis improved or normalized proteinuria after BLM treatment (3).

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PANLAR2021-ABS-1237

SYSTEMIC LUPUS ERYTHEMATOSUS PULMONARY INVOLVEMENT IN THE RELESSAR REGISTRY, ARGENTINA

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Objectives: 1. To determine the frequency and type of pulmonary involvement in RELESSAR registry that includes Argentinean patients with systemic lupus erythematosus (SLE).

1. To investigate its association with sociodemographic variables, smoking, autoantibodies and complement.

2. To identify how many patients who had acute involvement develop chronic damage.

3. To identify how many patients with pulmonary involvement died.

Methods: Multicenter (41 centers), cross-sectional, descriptive, and analytical study carried out with a RELESSAR trans registry. Patients with SLE who fulfill ACR 1997 criteria were admitted between 2017 - 2018. We analyzed

Table 1. Sociodemographic characteristics of patients included at RELESSAR Registry.

	Pulmonary involvement N=188	NO pulmonary involvement N=1423	**Total** N=1611
Age at the last evaluation. Median (Q1, Q3)	37.7 [28.2, 49.9]	36.8 [27.6, 46.9]	37.0 [27.6, 47.2]
Sex			
Female	165 (87.8%)	1309 (92%)	1474 (91.5%)
Male	23 (12.2%)	112 (7.87%)	135 (8.38%)
Education Level			
Median [Q1, Q3]	12 (9.00,14.0)	12 (10.00,15.0)	12 (10.00,15.0)
Ethnicity			
Caucasians	65 (34.6%)	652 (45.9%)	717 (44.6%)
Mestizos	95 (50%)	623 (43.8%)	717 (44.6%)
Pure Amerindios	0 (0%)	20 (1.41%)	20 (1.24%)
African Latin Americans	26 (13.8%)	104 (7.32%)	130 (8.08%)
Socioeconomic Level			
High	1 (0.53%)	13 (0.91%)	14 (0.87%)
Upper Middle	15 (7.98%)	137 (9.64%)	152 (9.45%)
Middle Class	69 (36.7%)	581 (40.9%)	650 (40.4%)
Lower Middle	81 (43.1%)	568 (40%)	649 (40.3%)
Lower Class	22 (11.7%)	122 (8.59%)	144 (8.95%)
Smoking			
Never	125 (66.5%)	918 (64.5%)	1043 (64.7%)
Past or Current Smoker	51 (27.5%)	368 (29.06)	454 (28.77%)

Table 2. Autoantibodies, SLICC and SLEDAI of SLE patients at RELESSAR Registry.

ANA			
Negative	6 (3.19%)	44 (3.09%)	50 (3.10%)
Positive	181 (96.3%)	1366 (96%)	1547 (96%)
Anti-DNA dc			
Negative	52 (27.7%)	227 (16%)	279 (17.3%)
Positive in the past or current	133 (70.7%)	1168 (82.1%)	1031 (80.8)
Anti Sm			
Negative	98 (52.1%)	813 (57.1%)	911 (56.5%)
Positive	55 (29.3%)	412 (29.0%)	467 (29%)
IgG anticardiolipin			
Negative	120 (63.8%)	964 (67.7%)	1084 (67.3%)
Positive	41 (21.8%)	244 (17.1%)	285 (17.7%)
IgM anticardiolipin			
Negative	120 (63.8%)	983 (69.1%)	1103 (68.5%)
Positive	40 (21.3%)	225 (15.8%)	265 (16.4%)
Lupus Anticoagulant			
Negative	126 (67%)	925 (65%)	1051 (65.2%)
Positive	28 (14.9%)	188 (13.2%)	216 (13.4%)
Lower complement			
Negative	35 (18.6%)	212 (14.9%)	247 (15.3%)
Positive	148 (78,8%)	1158 (81.4%)	1306 (81.1%)
SLICC			
Mean (SD)	1.99 (2.09)	0.85 (1.20)	0.98 (1.38)
Median [Q1, Q3]	1.00 (1.00,3.00)	0 (0,100)	1.00 (0,1.00)
SLEDAI			
Mean (SD)	4.87 (6.13)	2.97 (4.29)	3.19 (4.58)
Median [Q1, Q3]	2.5 (0,7.00)	2.00 (0,4.00)	2.00 (0,4.00)

sociodemographic variables: (age, sex, ethnicity, years of schooling and socioeconomic level by Graffar socioeconomic score). The autoantibody profile variables included: ANA, anti dsDNA, C3, C4, Sm, anti-cardiolipins IgG an IgM and lupus anticoagulant Additional variables included: activity and chronicity index by SLEDAI and SLICC, and self-reported smoking status (never smoked or past or current smoking). Pulmonary manifestations were classified according to ACR criteria as acute presentation that included presence of pleuritis, alveolitis and diffuse alveolar hemorrhage (DAH) and chronic according to SLICC index as pulmonary hypertension, shrinking lungs, pulmonary embolism, pleural fibrosis and pulmonary infarction or surgical resection.

Results: We included 1611 patients (Table 1 and 2), 38 patients (13.2% of the cohort) had pulmonary involvement; 7,06% had respiratory damage: 1,92% had pulmonary hypertension according to ultrasonographic criteria, 1,61% had pulmonary fibrosis, 1,43% had shrinking lungs, 1,12% pulmonary embolism, 0.8% pleural fibrosis, 0.18% pulmonary infarction or surgical resection. A total of 426 (26,4%) patients had pleuritis and 62 (3,85%) and 24 (1,49%) alveolitis and DAH respectively. 19 patients (17,9%) that had acute pulmonary involvement showed damage. 21/1611 (1,3%) died having had any manifestation of pulmonary involvement. Education level was negatively associated with pulmonary involvement (p = 0.0393) - RO: 0.943 (CI95%: 0.893 - 0.997). The chance of having a chronic complication is 6% lower by 1 year of higher education level.

Conclusion: Pulmonary involvement in systemic erythematosus lupus is common, especially pleuritis. Higher level of education is associated with a better outcome in lupus patients, including lung disease.

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PANLAR2021-ABS-1307

FULL-HOUSE GLOMERULONEPHRITIS: LUPUS OR NOT LUPUS?

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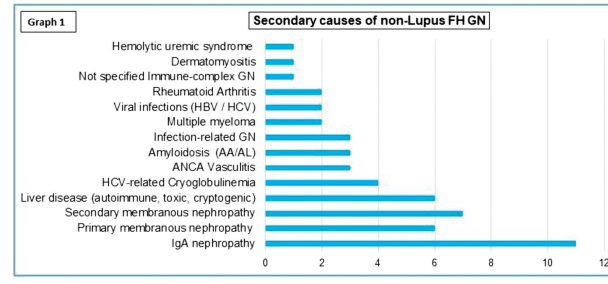
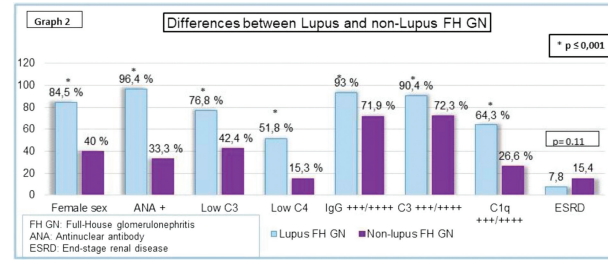
Objectives: Our aim was to evaluate clinical and histopathological predictors associated with Systemic Lupus Erythematosus (SLE) diagnosis that allow us to distinguish Lupus Full-House (FH) glomerulonephritis (GN) from other causes of FH GN.

Methods: Kidney biopsies performed in our hospital between 2000 and 2019 were reviewed, identifying those with a FH pattern. Clinical, analytical, and histopathological data were collected. Patients were classified into Lupus - FH GN (if they met ACR 1997 / SLICC 2012 / ACR-EULAR 2019 SLE criteria) and non-Lupus FH GN (idiopathic or secondary).

Descriptive statistics, univariate and multivariate logistic regression analysis were performed to identify factors associated with SLE diagnosis, and Kaplan-Meier survival curves were used to compare renal survival between both groups

Results: 181 patients with FH GN were included, 124 women (68.5%), with a mean age of 41.1 years (SD 16.0) and a median post-biopsy follow-up time of 2.9 years (IQR 0.4-6.8 years). 116 patients (64.1%) met SLE criteria (103 with extrarenal manifestations and 13 renal-limited lupus), 52 patients presented identifiable secondary causes of FH GN (Figure 1) and 13 remained idiopathic FH GN. Patients with SLE were more frequently female, younger, and presented positive ANA, anti-DNA, low C3 or C4 at the time of renal biopsy (Figure 2). Renal biopsies in Lupus - FH GN presented more frequently 3 or 4 crosses of IgG, C3 and C1q deposits ($p < 0.001$) and had less moderate / severe involvement of the tubulointerstitial compartment ($p < 0.001$), when compared with non-Lupus FH GN. Patients with SLE had higher glomerular filtration rate at the time of biopsy ($p < 0.001$) and more frequently received corticosteroids ($p < 0.001$) and immunosuppressive treatments ($p < 0.001$). In the multivariate analysis, the factors that remained associated with Lupus FH GN were: female sex, younger age, positive ANA, anti-DNA, and 3 or 4 crosses of C1q deposits.





Conclusion: In our cohort, 35.9% of FH GN were not associated with SLE diagnosis. Female sex, younger age, positive ANA or anti-DNA antibodies and marked C1q deposits at renal biopsy were associated with SLE diagnosis.

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PANLAR2021-ABS-1313

NEUTROPHIL-LYMPHOCYTE INDEX AND PLATELET-LYMPHOCYTE INDEX AS BIOMARKERS OF INFLAMMATION IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To determine the association between NLI, PLI and disease activity in patients with SLE.

Methods: Observational and analytical cross-sectional study. Patients with an SLE diagnosis who were attending visits at a rheumatology clinic from March 2018 to December 2019. Clinical and laboratory variables were obtained through a scheduled visit and serum sample collection. Patients were grouped according to their SLEDAI values into a low activity group (SLEDAI ≤9) and a high activity group (SLEDAI >9). NLI was determined as the neutrophil count divided by the lymphocyte count, while PLI was determined as the platelet count divided by the lymphocyte count.

Results: Eighty-two patients were included. Seventy (85,4%) were women. They had a mean age of 34.89 ± 12.50 years. The average SLEDAI score was 3.65 ± 4.5. 52.4% of the patients had positive anti-DNA. The mean value of US CRP was 3.60 ± 4.8 mg/dl. A mean NLI value of 2.47 ± 1.65 (0.541- 9.0) and a mean PLI value of 88.39 ± 50.10 (33.8 - 347.0) were obtained. The low activity group included 76 patients (92.7%) and the high activity group had 6 patients (7.3%). The low activity group had an NLI of 1.49 ± 0.17 and PLI of 44.99 ± 5.16, while the high activity group had a NLI of 2.65 ± 1.08 and an PLI of 82.65 ± 33.74. An association was found between the high activity group patients and high NLI ($p = 0.014$) and PLI ($p = 0.004$). No association was found with the presence of positive anti-DNA and elevated US CRP.

When correlating NLI and PLI with SLEDAI values, a statistically significant positive correlation was observed with NLI ($r = 0.339$, $p = 0.003$) and PLI ($r = 0.256$, $p = 0.026$) values. Based on the ROC curve for our cohort, the best cut-off values to predict high disease activity are ≥2.28 for NLI, with a sensitivity of 66.7% and a specificity of 17.1% and ≥ 103.492 for PLI, with a sensitivity of 83.3% and a specificity of 32.9%.

Conclusion: NLI and PLI are useful and accessible biomarkers to identify SLE patients with high disease activity.

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PANLAR2021-ABS-1445

BULLOUS LUPUS, A DIAGNOSTIC CHALLENGE. CASE REPORT

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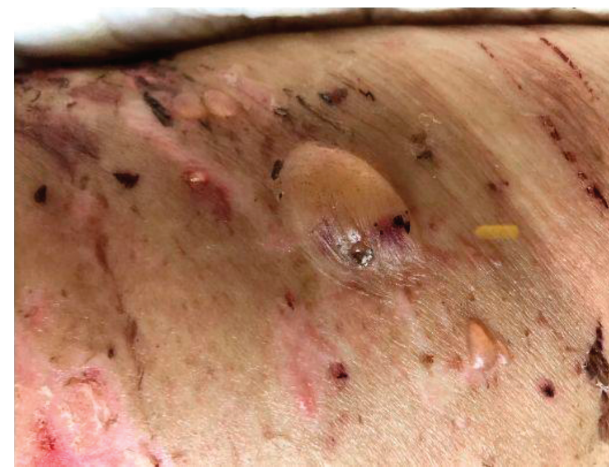
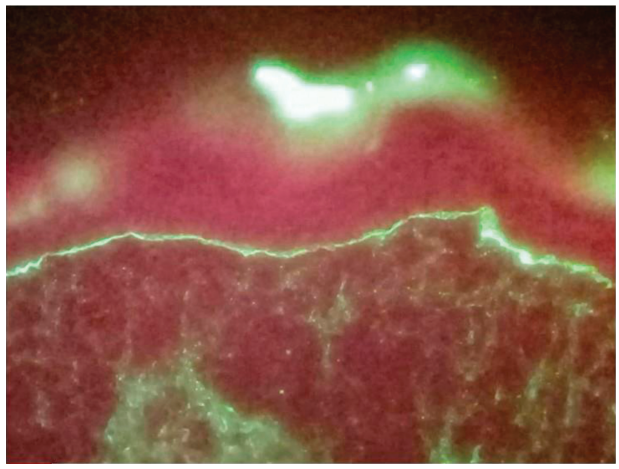
What is your preferred presentation method? E-poster.

Objectives: To present a case of bullous lupus as the initial cutaneous manifestation of SLE.

Methods: 28-year-old woman, with no relevant past medical history. Her condition had a 6 month evolution characterized by edema located in the pelvic limbs, ascending, soft, painful, petechiae located in the plantar region, for which she received treatment with prednisone 10 mg / day, and salicylic acid which incurred a partial improvement. Later, localized dermatosis occurred in the abdomen, characterized by tense, serous and serosanguinous blisters up to 1 cm in diameter, with generalized dissemination, involving the oral mucosa, palms and soles. Other clinical manifestations included leukopenia due to lymphopenia,





thrombocytopenia, hypocomplementemia, antinuclear antibodies 1: 640 coarse speckled, anti-Ro, anti-La, anti- Sm positive. Skin biopsy demonstrated subepidermal bullous disease, with neutrophilic infiltrate and microabscesses, with immunofluorescence with deposits of C1q vascular wall and reticular dermis, IgG and IgA in dermoepidermal junction.

Results: Autoimmunity in bullous SLE is characterized by the presence of circulating anti-type VII collagen antibodies. Histologically, it is characterized by a subepidermal blister, with a predominantly neutrophilic dermal infiltrate and only occasional eosinophils. Immunofluorescence examination shows linear deposition of IgG, IgA, C3 and C1q along the area of the basement membrane (Figures 1 and 2). Camisa and Sharma proposed diagnostic criteria; SLE diagnosis based on the following ACR criteria; vesicles and blisters located mainly in areas exposed to the sun; Histopathology is characterized by subepidermal bullae with neutrophil microabscesses in the dermal papillae, similar to those found in dermatitis herpetiformis, and deposition of IgG, IgM, or both, and often IgA in the area of the basement membrane. The treatment of choice is with dapsone, glucocorticoids with antimalarials + or combined with other immunosuppressants, in severe or refractory cases the use of Rituximab.

Conclusion: The cutaneous manifestations of SLE can occur frequently throughout the course of the disease. Due to their variables, it may be a real diagnostic challenge for the clinician. The rest of the clinical manifestations, laboratory tests, and biopsy of the lesions are essential for the diagnosis of bullous SLE.

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PANLAR2021-ABS-1383

SERUM IP-10 PROTEIN IN SYSTEMIC LUPUS ERYTHEMATOSUS: ACTIVE VS. INACTIVE

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Objectives: To establish whether there is a correlation between IP-10 protein and disease activity in women with SLE and to compare their behavior between active and inactive groups and a control group.

Methods: 78 women were recruited, 52 of them with ACR / EULAR 2019 classification criteria for SLE, and 26 women in the control group. Disease activity was classified as active and inactive according to SLEDAI. The kit "The invitrogen Human IP-10" with the ELISA method was utilized. All statistical calculations were performed using the GraphPad Prism version 8 program.

Results: Serum IP-10 protein levels were higher in the active SLE group; 45.36 ± 24.7 pg / mL, healthy control group; 3.87 ± 1.11 pg / mL and 19.37 ± 9.15 pg / mL in the inactive lupus group. There was a statistically significant difference between the control group vs active SLE ($p = 0.0015$).

Conclusion: The IP-10 protein is elevated in active lupus and its values correlate with activity level, consistent with what is reported in the literature.

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PANLAR2021-ABS-1224

CLINICAL EVOLUTION OF PATIENTS WITH RHEUMATOID ARTHRITIS USING THE SYNCHRONOUS TELEMEDICINE MODALITY IN THE POST PANDEMIC PERIOD

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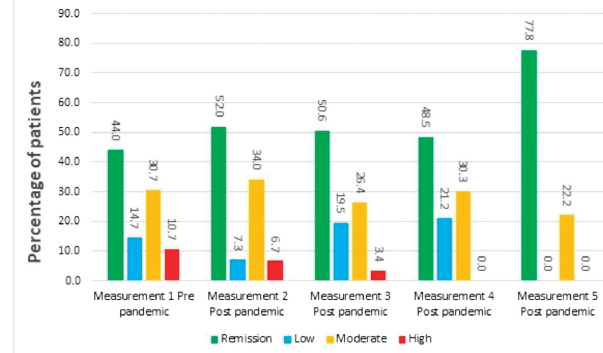
Objectives: To determine the evolution in the clinical activity of patients with rheumatoid arthritis (RA) controlled exclusively by the synchronous telemedicine modality in the post-COVID-19 pandemic period.

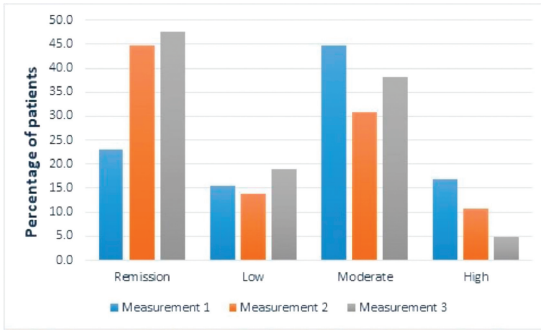
Methods: An observational study was carried out of patients with RA who were treated using the synchronous telemedicine modality prior to the COVID-19 pandemic and who continued or who were admitted after the declaration of a health emergency in Colombia, which were analyzed as a separate group. Assessments of disease activity measured by DAS28 using C-reactive protein are shown.

Results: In the period between March 15 of 2020 and April 15 of 2021, data was obtained from 150 patients under follow-up and 65 who were admitted after the declaration of a health emergency. Of the first group, a little more than half of the patients had 2 evaluations during this period with DAS28 assessment, only 33% obtained 3 assessments, and very few with 4 or more. We found that the number of patients with high activity decreased significantly (from 10% to 3%) and that of remission increased (44% to 50%) and low activity (14% to 19%) without major changes in the moderate activity group that remained close



Activity	Measurement 1	Measurement 2	Measurement 3	Measurement 4	Measurement 5
Remission	66	78	44	16	7
Low	22	11	17	7	0
Moderate	46	51	23	10	2
High	16	10	3	0	0
Total	150	150	87	33	9

Figure 1. Evolution of the activity of patients using DAS28 CRP in follow-up before the pandemic period.



Activity	Measurement 1	Measurement 2	Measurement 3
Remission	15	29	10
Low	10	9	4
Moderate	29	20	8
High	11	7	1
Total	65	65	23

Figure 2. Evolution of activity using DAS28 CRP in patient admitted in the post pandemic period.

to a third (Figure 1). The same happened in the post-pandemic group, with a difference in reduction of the moderate activity group (44% to 38%) (Figure 2).
Conclusion: Similar to other studies, telemedicine is a useful and effective way to control patients with RA, mainly finding a reduction in patients with high activity and an increase in patients in remission.

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PANLAR2021-ABS-1395

COVID-19 IN PATIENTS WITH RHEUMATIC DISEASES: COMPARISON OF DATA FROM THE ARGENTINE REGISTRY (SAR-COVID), WITH THE LATIN AMERICAN AND GLOBAL (GLOBAL RHEUMATOLOGY ALLIANCE)

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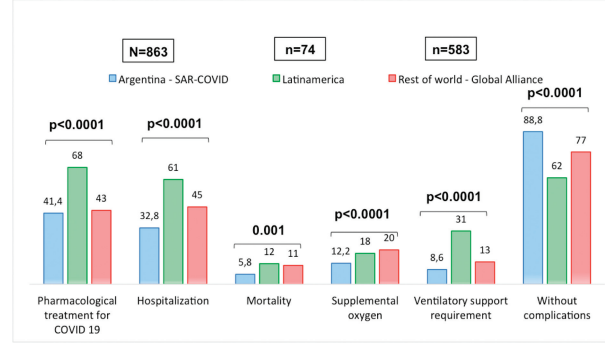
Objectives: To compare characteristics of patients with rheumatic disease and COVID-19 in Argentina (SAR-COVID Registry), in contrast to the data reported at the Latin American and global level (Global International Alliance RheumCOVID Registry).

Methods: A national, multicenter, longitudinal and observational registry was carried out. Patients older than 18 years, with a diagnosis of rheumatic disease and SARS-CoV-2 infection by PCR or positive serology, were included between August 13, 2020 and April 11, 2021. Demographic data, underlying rheumatic disease, comorbidities, clinical-laboratory characteristics of the SARS-CoV-2 infection, as well as treatments and outcomes. Characteristics of the patients included were compared with the data reported at the Latin American and global level. Descriptive statistics were performed. Comparisons between groups were made using ANOVA, chi2 or Fisher's test.

Results: 863 patients from Argentina, 74 patients from Latin America and 583 from the rest of the world were included, mostly women in the three groups (79.4%, 73% and 71% respectively). The most frequent rheumatic diseases in the three groups were rheumatoid arthritis (45.8%, 35%, and 39%, respectively) and systemic lupus erythematosus (18%, 22%, and 14%) (Table 1). In Argentina, fewer patients received specific pharmacological treatment for COVID-19 in relation to the other 2 groups (41.4%, 68% and 43% respectively, $p < 0.0001$), and there was a lower requirement for non-invasive/invasive mechanical ventilation than in the rest of Latin America and the world (8.6% vs 31% vs 13%, $p < 0.0001$). Hospitalization requirement in Argentina was lower than in the rest of Latin America and the rest of the world (32.8% vs 61% vs 45%, $p < 0.0001$), as well as mortality (5.8%, 12% and 11%; p 0.0010). 86.9% of patients did not present any complications in Argentina, with a statistically significant difference with the rest of the groups (62% and 77%, with $p < 0.0001$) (Figure 1).

	SAR COVID (n=863)	Latin America (n=74)	Rest of the world (n=583)	p Global	p SAR vs LatinAm	p SAR vs rest of the world
Female, n (%)	685 (79.4)	54 (73)	412 (71)	**0.0006**	0.2517	**0.0001**
Age, median (SD)	50.2 (14.6)	53.5 (15.6)	55.8 (15.5)	**<0.0001**	0.1638	**<0.0001**
Ethnicity n (%) Caucasic	418 (48.4)	9 (12)	373 (64)	**<0.0001**	**<0.0001**	**<0.0001**
Afroamerican	7 (0.8)	2 (3)	78 (13)			
Latinoamerican	376 (43.6)	63 (85)	57 (10)			
Smoking, n (%)	199 (23.7)	11 (15)	127 (22)	0.2548		
Comorbilidades n (%) Hypertension	210 (24.3)	22 (30)	195 (33)	**0.0007**	0.3725	**0.0001**
Lung disease	108 (12.5)	11 (15)	127 (22)	**<0.0001**	0.2200	**<0.0001**
Cardiovascular disease	28 (3.2)	3 (4)	63 (11)	**<0.0001**	0.97	**<0.0001**
Mellitus diabetes	70 (8.1)	8 (11)	69 (12)	0.5962		
Obesity	12 (1.4)	4 (5)	29 (5)	**0.0001**	**0.0365**	**0.0001**
Most frequent rheumatics diagnoses n (%)						
Rheumatoid Arthritis	395 (45.8)	26 (35)	225 (39)	**0.0107**	0.100	**0.008**
Systemic Lupus Erythematosus	155(18)	16 (22)	80 (14)	0.4963	0.532	**0.038**
Psoriasic arthritis	57 (6.6)	2 (3)	75 (13)	**<0.0001**	0.282	**<0.0001**
Spondyloarthritis	22 (2.5)	7 (9)	48 (8)	**<0.0001**	**0.0032**	**<0.0001**
Vasculitis	41 (4.8)	6 (8)	55 (9)	**0.0016**	0.3210	**0.0006**
Pre COVID 19 treatment n (%)						
NSAID	113 (13.1)	19 (26)	106 (18)	**0.0017**	**0.0049**	**0.0101**
Glucocorticoid	348 (40.3)	38 (51)	182 (31)	**<0.0001**	0.0842	**0.0005**
Synthetic DMARDs	596 (69.1)	60 (81)	382 (66)	**0.0193**	**0.042**	0.176
Antimalarials	182 (21.1)	28 (38)	123 (21)	**0.0031**	**0.0015**	0.9999
Biologic DMARD	163 (18.9)	12 (16)	205 (35)	**<0.0001**	0.6815	**<0.0001**
COVID19 diagnosis (CRP)	794 (92)	51 (69)	426 (73)	**<0.0001**	**<0.0001**	**<0.0001**



Conclusion: Patients with rheumatic diseases and SARS-CoV-2 infection from Argentina reported in this registry received less specific pharmacological treatment for COVID-19 than those registered in other countries, presented fewer complications and required less ventilatory support. In relation to mortality, although a lower mortality was found in the Argentine registry. The fact that registries have information collected at different periods of the pandemic and different local epidemiological situations, does not allow major conclusions to be drawn.

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PANLAR2021-ABS-1434

EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS: CLINICAL, SEROLOGICAL AND HISTOLOGICAL MANIFESTATIONS AND CHRONIC DAMAGE RISK. A SINGLE CENTER EXPERIENCE

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Objectives: To examine the clinical, serologic and histological factors associated with VDI and FFS in EGPA in Mexican patients.

Methods: A medical records review study of EGPA patients was conducted from 1990 to 2020. Clinical, serological and histological characteristics were analyzed; Vasculitis Damage Index (VDI) and Five Factor Score (FFS) were applied. Mann-Whitney U-test, Spearman's correlation, ANOVA, multivariate analysis, odds ratio (OR) and 95% confidence interval (CI) were determined.

Results: There were 30 patients (18 men and 12 women), aged 50 ± 11.4 years, and disease evolution 11 ± 9 years.

Clinical characteristics: Pulmonary 100%, ear-nose-throat 83%, neurologic 53%, skin 53%, heart 33%, musculoskeletal (MSK) 33% and renal 27%, Blood eosinophilia 96% and ANCA-positivity 70%. The Birmingham Vasculitis Activity Score (BVAS) score at onset was 17.2 ± 5.2. The median accumulated VDI was 4.00. In bivariate analysis, neurological (OR 7.00, p = 0.046), skin (OR 20.00, p = 0.004), and heart (OR 2.66, p = 0.019) involvement and methylprednisolone pulses (OR 7.60, p = 0.049) were the main contributors to chronic damage. However, in multivariate analysis no independent risk factors were identified. BVAS score at onset and VDI score were correlated (rho = 0.699, p < 0.0001). FFS at onset was correlated to VDI (rho = 0.606, p < 0.0001). These data are presented in Tables 1 and 2.

Table 1. Demographic characteristics and clinical manifestations of patients with EGPA and its comparison with other cohorts.

	Current study n = 30 (%)	Italy[9] n = 134 (%)	France[10] n = 383 (%)	Poland[11] n = 102 (%)	Spain[11] n = 99 (%)	p*
Age at onset μ	50 ± 11.4	51.2 ± 13.6	50.3 ± 15.7	44.5	52.6 ± 15.8	<0.0001**
Gender F/M	12 / 18	74 / 60	184 / 199	68 / 34	50 / 49	0.009
Pulmonary involvement	**30 (100.0)**	79 (59.0)	350 (91.4)	100 (98.0)	59 (59.6)	<0.0001
Asthma	24 (80.0)	132 (98.5)	349 (91.1)	-	91 (91.9)	0.002
ENT involvement	25 (83.3)	118 (88.1)	184 (48.0)	82 (80.4)	53 (53.4)	<0.0001
Constitutional symptoms	**18 (60.0)**	13 (9.7)	-	-	42 (42.4)	<0.0001
Neurological involvement	16 (53.3)	50 (37.3)	197 (51.4)	50 (49.0)	54 (54.5)	0.038
Skin involvement	**16 (53.3)**	25 (18.7)	152 (39.7)	51 (50.0)	37 (37.4)	<0.0001
MSK involvement	10 (33.3)	-	149 (38.9)	-	53 (53.2)	0.012
Heart involvement	10 (33.3)	26 (19.4)	105 (27.4)	43 (42.2)	20 (20.2)	0.001
Renal involvement	8 (26.7)	5 (7.3)	83 (21.7)	25 (24.5)	32 (32.3)	<0.0001
GI involvement	3 (10.0)	9 (6.7)	89 (23.2)	25 (24.2)	2 (2.0)	<0.0001
ANCA positivity	**21 (70.0)**	41 (30.6)	108 (28.2)	43 (47.8)	60 (60.6)	<0.0001
BVAS at onsetμ	17.2 ± 5.2	-	19.1 ± 8.4	-	17.8 ± 7.7	<0.0001**
FFS at onset †	0.5 (0.0-1.0)	0.0	-	-	-	π

EGPA: Eosinophilic Granulomatosis with Polyangiitis, ENT: ear-nose-throat, MSK: musculoskeletal, GI: gastrointestinal, BVAS: Birmingham Vasculitis Activity Score (version 3), FFS: Five-Factor Score.
μ Mean ± standard deviation.
† Median and interquartile range.
π insufficient information for comparative analysis.
* Chi square test.
** ANOVA.

Table 2. Association of clinical, serological, histological and treatment findings with severe organ damage accrual in EGPA patients.

Variable	VDI ≥ 4, n = 21 (%)	VDI < 4, n = 9 (%)	Univariate analysis OR (CI)	p*	Multivariate analysis OR (CI)	p**
Pulmonary (infiltrate or pleural effusion)	21 (100.0)	9 (100.0)	-	-	-	-
Asthma	16 (76.2)	8 (88.9)	0.40 (0.1-4.0)	0.637	-	-
ENT	19 (90.5)	6 (66.7)	4.75 (0.8-35.4)	0.143	-	-
Constitutional symptoms	14 (66.7)	4 (44.4%)	2.50 (0.5-12.3)	0.418	-	-
Neurological (peripheral or CNS)	**14 (66.7)**	**2 (22.2)**	**7.00 (1.14-42.9)**	**0.046**	**6.54 (0.4-94.5)**	**0.168**
Skin	**15 (71.4)**	**1 (11.1)**	**20.00 (2.0-196.3)**	**0.004**	**7.25 (0.6-87.1)**	**0.118**
Musculoskeletal	9 (42.9)	1 (11.1)	6.00 (0.6-57.0)	0.204	-	-
Heart †	**8 (57.1)**	**2 (12.5)**	**2.66 (1.2-5.5)**	**0.019**	**0.61 (0.0-8.1)**	**0.709**
Renal	7 (33.3)	1 (11.1)	4.00 (0.4-38.6)	0.374	-	-
Gastrointestinal	3 (14.3)	0 (0.0)	1.50 (1.1-1.9)	0.534	-	-
Eosinophilia	20 (95.2)	9 (100.0)	0.69 (0.5-0.8)	1.000	-	-
ANA (+)	5 (23.8)	6 (66.7)	0.13 (0.0-2.0)	0.191	-	-
ANCA (+)	16 (76.2)	5 (55.6)	2.56 (0.4-13.3)	0.389	-	-
aPL (+)	2 (9.5)	0 (0)	1.47 (1.1-1.9)	0.337	-	-
Eosinophilic granulomatosis vasculitis	18 (85.7)	6 (66.7)	3.00 (0.4-19.0)	0.329	-	-
Leukocytoclastic vasculitis	2 (9.5)	3 (33.3)	0.21 (0.1-1.5)	0.143	-	-
Cyclophosphamide pulses	19 (90.5)	8 (88.9)	1.18 (0.0-15.0)	0.672	-	-
Oral cyclophosphamide	1 (4.8)	1 (11.1)	0.40 (0.0-7.2)	0.517	-	-
Steroid pulses (methylprednisolone)	**19 (90.5)**	**5 (55.6)**	**7.60 (1.1-54.0)**	**0.049**	**8.76 (0.3-195.1)**	**0.171**
Oral steroid (prednisone)	18 (85.7)	9 (100.0)	0.66 (0.5-0.8)	0.328	-	-
Azathioprine	7 (33.3)	3 (33.3)	1.00 (0.1-5.2)	1.000	-	-

EGPA: Eosinophilic Granulomatosis with Polyangiitis, VDI: Vasculitis Damage Index, ENT: ear-nose-throat, CNS: central nervous system, ANA: antinuclear antibodies, ANCA: antineutrophil cytoplasmic antibody, aPL: antiphospholipid antibodies.
† The VDI groups were grouped as VDI ≥5 vs. VDI< 5.
*Fisher test. ** Logistic regression.

Conclusion: In our EGPA patients, neurological, skin, heart damage, and more use of corticosteroid pulses, were associated with severe VDI and FFS. Longitudinal studies are needed to elucidate the impact of these factors in EGPA.

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PANLAR2021-ABS-1116

NAILFOLD CAPILLAROSCOPIC FINDINGS IN PATIENTS WITH RAYNAUD'S PHENOMENON IN THE COQUIMBO POPULATION. CHILE

Jose Jimenez, María Guasamucaro, Alejandra Alvarez, and Alejandra Asuajes.

Objectives: Capillaroscopy is a diagnostic technique, non-invasive, designed to evaluate the vessels of the microcirculation. This study is crucial for the diagnosis and differentiation between primary Raynaud´s phenomenon (RP) and RP secondary to connective tissue diseases. The appearance of an abnormal capillary pattern implies a high positive predictive value for the development of systemic rheumatic disease.

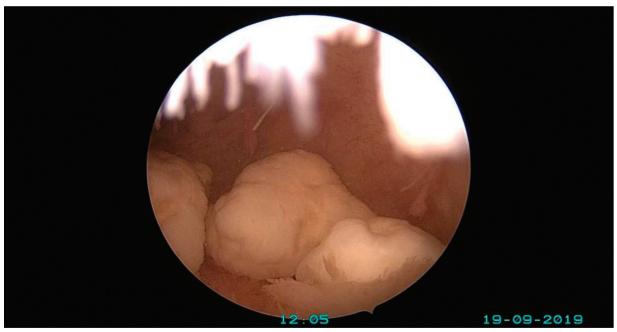
A study was carried out with the objective of describing the capillary findings in patients with Raynaud's phenomenon who attend the San Pablo de Coquimbo Hospital. Chile.

Methods: A medical records review observational study was carried out, with the objective of describing the capillary findings in patients with Raynaud's phenomenon who attend the San Pablo de Coquimbo Hospital. Chile. It included all 8-finger nail folds of both-hand capillaroscopy performed between December 2018 and December 2019 to outpatients with RP who attend the Rheumatology Clinic at the San Pablo hospital in Coquimbo, Chile.
Results: Of 72 patients included, 96,4% were female, 85.6% had abnormal morphological changes, 30,6% had Systemic Sclerosis, 20,8% Systemic Lupus Erythematosus, 5,6% Localized Sclerosis, 2,8% Rheumatoid Arthritis, 2,8% Inflammatory Myopathy and 20,8% Undifferentiated Connective Tissue Disease. Of the patients with Systemic Sclerosis 13,63% presented a normal pattern, 18,8% an early pattern, 40,90% an active pattern, 22,72% late pattern and non-specific results in 4,54%. Primary Raynaud's phenomenon was concluded in 20,83% of the cases.
Conclusion: Nailfold capillaroscopy allows the evaluation of the microvasculature and may distinguish between primary and secondary RP. Abnormal findings in a patient with RP may help identify underlying connective tissue disease.

PANLAR2021-ABS-1370

SYNOVIAL CHONDROMATOSIS OF THE LEFT KNEE. REPORT OF A CASE TREATED WITH ARTHROSCOPY

Araceli Chico Capote, Ramón García Hernández, and Mary Luisa Mora Quezada.
Objectives: To describe the clinical case of a patient with Synovial chondromatosis of the left knee treated with arthroscopy.
Methods: We present the case of a patient with Synovial chondromatosis (SC) of the left knee, with extensive joint limitation, who was treated with arthroscopy. We also searched PubMed, Medline and google scholar (2019-2021) for Synovial chondromatosis and treatment.
Results: The following case report is a 56-year-old woman who was admitted in 2019 due to pain, increased volume and limited mobility in the left knee (Figure 1). Three free, whitish, spheroidal bodies of variable size between 1-3 cm in diameter and solid consistency were found which were fragmented and extracted. Partial synovectomy and ample joint irrigation were performed. The histological study was compatible with chronic synovial hyperplasia and SC. The recovery of the range of motion was excellent and no other episode of inflammation or pain was found in that joint after 6 months of follow-up.



Conclusion: SC of the knee is a rare entity. Patients may remain asymptomatic but inflammation, mechanical joint pain, limited mobility, and joint blockage are more common. Imaging studies should be done prior to surgical treatment in order to determine the diagnosis and determine the location and extent of the lesions. Arthroscopic treatment is a good option since it is effective and allows quick recovery time.

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PANLAR2021-ABS-1374

PIGMENTED VILLONODULAR SYNOVITIS: RADIOLOGICAL, ARTHROSCOPIC AND PATHOLOGICAL CORRELATION. CASE REPORT

Araceli Chico Capote, Jefferson Alexander Moreno Atiencia, and Miguel Hernán Estévez del Toro.
Objectives: To describe the clinical case and treatment of a patient with Pigmented villonodular synovitis.
Methods: We present the case of a patient with Pigmented villonodular synovitis (PVNS) who was treated with arthroscopy and radiotherapy. We also search PubMed, Medline and google scholar (2018-2021) for Pigmented villonodular synovitis and treatment.
Results: A 70-year-old woman presented with pain and swelling in the right knee for 4 months, which was exacerbated by movement and ambulation, and improved with rest, treated with analgesics. On physical examination, inflammatory signs and an enlarged knee were observed. Arthroscopy revealed a thickened, dark brown synovial membrane with pedunculated lesions with a reddish-brown fluid suggestive of pigmented villonodular synovitis and a suspicion of a pedunculated cul-de-sac tumor.
Conclusion: Magnetic resonance imaging allows the detection of PNV, as does arthroscopic surgery, but only the pathological evaluation confirms the diagnosis and the histopathological study reveals the presence of synovial cells with hemosiderin deposits, endothelial cells, and reticuloendothelial cells, and multinucleated giant cells. The treatment of choice is total synovectomy, however in diffuse NPVS there is a great recurrence, which is why radiotherapy is required and biological therapies whose axis is CFS-1 / Csf-1R are being tested with good results.
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PANLAR2021-ABS-1336

OCCURRENCE OF DE QUERVAIN'S STENOSING TENOSYNOVITIS IN AN ODONATOLOGIST: A CASE REPORT

Wuerles Barbosa.
Objectives: The aim of the present study is to report a case of De Quervain's stenosing tenosynovitis (DQST) in a dental surgeon, correlating the causal nexus with his occupational activity.
Methods: The patient was a 24-year-old white man, who was a dental surgeon by profession. He presented to the outpatient clinic complaining of throbbing pain in the outer margin of the right wrist, with worsening of pain when abducting the thumb. Positive Finkelstein test. Ultrasonography showed on the dorsal face the tendons of the long abductor and short increased extensors of caliber adjacent to the radial border with anechoic halo of synovial edema.
Results: Musculoskeletal diseases are related to occupational activities, especially when there are repeated movements, poor posture and muscle fatigue. The patient has been performing dental procedures for 15 years, most of the time with inadequate posture, performing repetitive clamping movements between the first finger and the second and third fingers. In addition, the referred professional carries out work in endodontics and periodontics, to which they can predispose to repetitive movements, as well as exposure to noise from equipment, which is considered an occupational stress factor. The diagnosis of DQST is clinical, where the Finkelstein Test is performed as a confirmatory maneuver, however, imaging tests may be requested to better elucidate the diagnosis.
Conclusion: The relationship between occupational diseases, such as DQST; and some professions, such as dentistry, deserve attention from the attending physician; since this pathology can result in reduced mobility of the affected structures and, consequently, in the quality of life of the worker. Ergonomic readjustment and the creation of instruments that can reduce muscle fatigue and occupational stress are alternatives to be considered to minimize repetitive strain injuries and work-related diseases in these professionals.

PANLAR2021-ABS-1245

CLINICAL CHARACTERISTICS OF SEVERE INFECTIONS BY SARS-COV-2 IN COLOMBIAN PATIENTS WITH COVID-19 AND RHEUMATIC DISEASES: A CASE SERIES STUDY

Adriana Beltran-Ostos[1], Sergio Moreno[1], Daniela Vega-Hoyos[1], Ginna Saavedra- Martinez[1], Juan Juan Lozano[1,2], Paula Pavia[3], Jaiber Gutierrez[4], Marisol Carreño[1], Mateo Laguna-Guantiva[1], Juan Felipe Romero[1], and Consuelo Romero-Sanchez[4,5]. *[1]Health Research Group, Scientific Research Unit, [2]Hospital Militar, Bogota, Colombia, [3]Infectious and Tropical Diseases Group, Military Forces-GREIMIL, Scientific Research Unit, [4]Rheumatology and Immunology Department, Universidad Militar Nueva Granada, Clinical Immunology Group/Rheumatology and Immunology Department Hospital Militar, Hospital Militar, [5]Cellular and Molecular Immunology Group/ INMUBO, Universidad El Bosque, Universidad El Bosque, Bogotá, Colombia.*

Objectives: To describe the clinical characteristics and results of a group of patients with confirmed SarsCoV-2 infection and a history of rheumatic disease treated in a high complexity hospital in Bogota, Colombia

Methods: Case series that studied the outcomes of 19 adult patients with a confirmed diagnosis of a rheumatological disease from a cohort of 1,450 patients that were attended to in the emergency room (ER) between March and August 2020. The 19 patients had severe illness, and required hospitalization. Approved by the ethics committee.

Results: During the study period, (42.4%) of the ER group tested positive for SARS-CoV-2; 992(63.6%) were managed on an outpatient basis; 528 (36.4%) required inpatient management. The average age of the outpatient group was 38.9 years. 64.7% were male. All 19 who had a history of rheumatic or musculoskeletal disease, had COVID-19 infection, corresponding to 1.3% of all patients positive. The most frequent rheumatic diagnosis was rheumatoid.

Arthritis (42.1%), gouty arthritis (15.7%), Sjögren's syndrome (15.7%), psoriasis (10.5%) and systemic lupus erythematosus(10.5%). The most frequent comorbidities were hypertension (63.1%), hypothyroidism(15.7%), diabetes (10.5%), and chronic renal disease (9.1%). The predominant COVID-19 symptoms were coughing (94.7%), fever (68.4%), general discomfort (63.1%), odynophagia (47.3%), dyspnea (52.6%), headache (10.5%), and diarrhea (12.5%). Furthermore, 11/19 patients (57.8%) presented severe COVID-19 symptoms, which required hospitalization, with the average age of 63.91 years; the patients were older than those with a mild infection (51.2 years old). The hospitalized patients were also more likely to have arterial hypertension (90.9%) and diabetes(18.2% %) cough(100%), fever (81.8%), and odynophagia(63.6%). 36.4% showed lymphopenia. All had hypoxemia at the time of admission, and 36.4% were found to have pneumonia changes on X-ray films. Only three patients received antibiotic treatment, and all immunosuppressants except corticosteroids were suspended during hospitalization. Of the 11 hospitalized patients, two were admitted to intensive care—one of whom received invasive mechanical ventilation.

Conclusion: This case series analyzed 19 patients in a hospital in Bogotá with a rheumatic disease and COVID-19 infection. It showed that about two thirds required hospitalization, were over 60 years of age, half were male with comorbidities, and treated with systemic steroids, and were more likely to experience severe manifestations of a COVID-19.

PANLAR2021-ABS-1251

HYPOPHOSPHATEMIC ONCOGENIC OSTEOMALACIA ASSOCIATED WITH INGUINAL TUMOR

Ariane Neuhaus[1,2], Tatiane Fortuna[1,2], Andrea Montenegro[1,2], Rafaela Zarpelon Kunz[1,2], Gabriel Ferrari Alves[2], Bruno Trevisan[1,2], Gabriela Sasso Padilha[1,2], Rafael Coradin[1], Thiago Willers[1], Felipe Giovani Tawil Aubin[1], Maria Lúcia Lemos Lopes[1,2], and Tatiana Freitas Tourinho[1,2]. *[1]ISCMPA, [2]UFCSPA, Porto Alegre, Brazil.*

Objectives: Systemic lupus erythematosus is an autoimmune disease with multisystemic involvement and one of the most striking manifestations is nephritis. The classic clinical presentation is persistent proteinuria and/or urinary casts or active urine sediment, (five or more red blood cells or leukocytes per high magnification field). IgA nephropathy, on the other hand, is manifested by persistent microscopic or sporadic macroscopic hematuria. Elevated anti-DNA titers and complement consumption may point to lupus-related kidney activity. In this report, we present the case of a patient with systemic lupus erythematosus with previous involvement of class IV lupus nephritis and who later develops IgA nephropathy.

Methods: Medical record review.

Results: 40-year-old woman, with systemic lupus erythematosus (SLE) diagnosed in 1998, who met the criteria for cutaneous involvement, reactive ANF, alopecia and lupus nephritis - class IV in a biopsy performed in 1999, requiring pulse therapy with methylprednisolone and after with Cyclophosphamide at diagnosis. She had no other comorbidities. Currently using Hydroxychloroquine 400 mg, Azathioprine 150 mg, Enalapril 10 mg and Prednisone 10 mg. During outpatient follow-up, persistent microscopic hematuria was observed, but without laboratory alterations compatible with significant disease activity; complement and inflammatory tests were normal, and anti-DNA was non-reactive. Manual urine examination reveals the presence of hemoglobin and many erythrocytes, with absence of urinary casts and proteinuria. Research on urinary erythrocyte dysmorphism was carried out, which showed changes in 52% of the red blood cells. Urinary tract ultrasound showed no changes and preserved renal function. We opted for a new renal biopsy in 2019, and a pathological study compatible with IgA nephropathy, mesanginal proliferative. Mesangial granular IgA (++) immunoflorescence, mesangial granular IgM (++), mesangial granular C3c (++). New pulse therapy with methylprednisolone was performed for three days.

Conclusion: Even though SLE can coexist with other autoimmune diseases, it is rarely described in association with nephropathies of non-lupus etiology. The importance of distinguishing between SLE kidney disease activity and nonlupus nephropathies mainly implies kidney prognosis and the adoption of therapeutic measures.

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PANLAR2021-ABS-1209

OCULAR CICATRICIAL PEMPHIGOID, A RHEUMATOLOGIC PERSPECTIVE

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Objectives: To evaluate the demographic, clinical and treatment characteristics of patients diagnosed with Ocular Cicatricial Pemphigoid (OCP).

Methods: Medical records review longitudinal, descriptive study from the database spanning from 2018 to 2021. Patients with clinical or biopsy proven OCP who made at least 3 medical appointments with rheumatology and who had ophthalmological follow-ups were included.

Results: Cohort of 30 patients, predominantly females (80%), average age of 70 years. Environmental exposure was suspected in 96%: (cereal´s dust, textiles, carpentry, soap, paints) and in 4%, cataract surgery was the suspected trigger. The symptoms at diagnosis were diverse, with both early and late involvement. Foster Stage in the first medical appointment was mostly 1-2 and the inflammatory activity was mild to moderate, while in 13% was severe. In 93% of cases the diagnosis was confirmed by biopsy with immunofluorescence. The mean time from symptom onset to diagnosis was 17 months. The time from the ophthalmological diagnosis to a referral to a rheumatologist consultant was one month or less in 80%, with a maximum of 12 months. In 76%, the time from the first rheumatology appointment to immunosuppressive treatment was 1 month. Systemic treatment, in those with mild to moderate activity, consisted of Dapsone, Methotrexate, Azathioprine or Mycophenolate in combination with corticosteroid therapy, achieving an inflammation control success rate of 83%. Adalimumab and Etanercept were also prescribed. In cases with severe activity (13%) and Foster 3-4, Mycophenolate, Cyclophosphamide, Rituximab and intravenous Immunoglobulin were administered with corticosteroids, with regular control of activity.

Conclusion: OCP is a chronic, immune-mediated disease. Due to the autoimmune nature of the pathology and the need for immunosuppressive treatments, rheumatologists play a key role on its approach.

It can show variable clinical features and severity that can seriously compromise vision leading to blindness if it is left untreated or the treatment is delayed.

The chronic inflammatory stimulus of environmental dusts and chemicals could be related to its development. An early diagnose and treatment are paramount to avoid visual sequels. Current treatments are based on a staggered systemic immunosuppressive strategy. A joint working group between rheumatologists and ophthalmologists is highlighted.

PANLAR2021-ABS-1238

FEARS AND HOPES DURING THE COVID-19 PANDEMIC IN PATIENTS WITH RHEUMATIC DISEASES. RESULTS FROM THE REUMAVID STUDY (PHASE 1)

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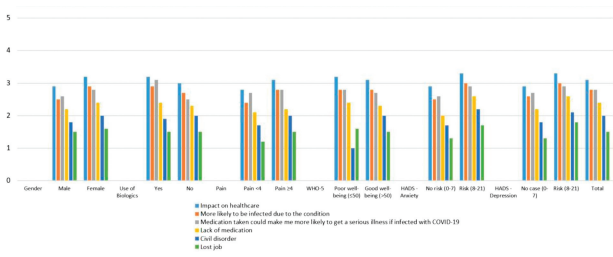
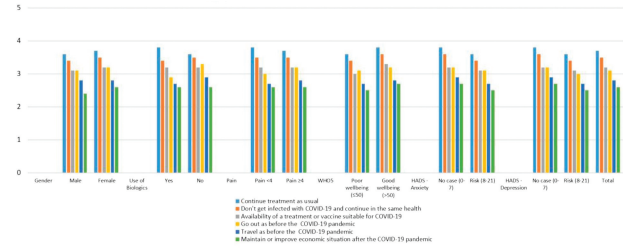
Objectives: The aim is to assess COVID-19-related fears and hopes in patients with rheumatic and musculoskeletal diseases (RMDs) during the first wave of the pandemic.

Methods: REUMAVID is an international collaboration led by the Health & Territory Research group at the University of Seville, together with a multidisciplinary team including patient organizations and rheumatologists. It is a cross-sectional study through online survey gathering data from 1,800 patients with a diagnosis of 15 RMDs recruited by patient organizations in Cyprus, France, Greece, Italy, Portugal, Spain and, the United Kingdom. Data are collected in two phases, the first phase between April and July 2020, the second in 2021. Participants rated a series of fears (infection, medication consequences, lack of medication, impact on healthcare, job loss, civil disorder) and hopes (treatment/vaccine availability, going outside, travel, economic situation, treatment continuation, health status) on a Likert scale from zero ("not concerned/hopeful at all") to five ("extremely concerned/hopeful"). Mann-Whitney and KruskalWallis tests were used to examine the different fears and hopes according to socio-demographics characteristics, disease and health status.

Results: The most frequent RMD group was inflammatory arthritis (75.4%), mean age was 52.6 years and 80.1% were female. The most important pandemic-related fears reported were healthcare impact (3.1 out of 5.0), interaction between treatment for their RMD and COVID-19 (2.8), shortage/unavailability of medication (2.4), civil disorder (2.0), and losing their jobs (1.5; Figure 1). As for hopes, the most highly rated were treatment continuation (3.7), COVID-19 avoidance and maintaining health status, (3.5), treatment or vaccine availability for COVID-19 (3.2), going out (3.1) and travelling as before the COVID-19 pandemic (2.8), and maintaining/improving economic status (2.6; Figure 2).





Conclusion: The outstanding COVID-19-related fear expressed by European patients with RMDs was its impact on healthcare, while the greatest hope was to be able to continue treatment. Those receiving biologics had greater fears and hopes associated with their treatment. In addition, patients at risk of mental disorders presented greater fears and less hopes.

PANLAR2021-ABS-1314

EVALUATION OF THE RHEUMATOID FACTOR IN FARMERS IN THE CITY OF TEFÉ, AMAZONAS

Wuerles Barbosa.

Background: The city of Tefé is considered the main center for producing manioc flour in the state of Amazonas, with the figure of farmers standing out; workers who part of the year also work in subsistence fishing activities. These professionals are usually exposed to several factors that can trigger some musculoskeletal and/or autoimmune pathologies; such as sun exposure and the absence of personal protective equipment (PPE) when using pesticides. Thus, it is essential to investigate laboratory alterations related to inflammatory conditions, such as the rheumatoid factor and the erythrocyte sedimentation rate.

Objectives: To evaluate the serum level of rheumatoid factor in farmers in the city of Tefé, Amazonas.

Methods: This work was carried out with the support of the municipal health (SEMSA) and production and supply (SEMPA) secretariats in the city of Tefé, Amazonas. The survey included farmers registered with SEMPA, where blood samples were taken following the 12-hour fasting guidelines and immediately centrifuged to obtain the serum. The analysis was performed using a commercial kit, following the manufacturer's guidelines, with the reference value being less than 8 IU/mL. For the quantitative variables, the mean and standard deviation were calculated and for the qualitative frequency and percentage.

Results: The sample consisted of 88 workers, of which 64 (72%) were male and 24 (27%) female. The average age was 55 years (SD 13.1 years). It was observed that 15 (17%) workers had results greater than 8 IU / ml and 26 (29.5%) reported having some joint symptom, such as arthralgia and arthritis.

Conclusion: 17% of patients had rheumatoid factor levels above normal, indicating a tendency for rheumatological problems to appear, specifically rheumatoid arthritis. Thus, the creation and implementation of public policies aimed at improving the quality of life of farmers in the Brazilian Amazon may enable a reduction in the prevalence of chronic noninfectious diseases occurring among these professionals.

PANLAR2021-ABS-1113

PERSISTENT ARTHRALGIAS AFTER CHIKUNGUNYA VIRUS INFECTION

Nicolás Martín Lloves Schenone.

Objectives: To carry out a bibliographic review on chronic arthralgias after CHIKV infection.

Methods: Narrative review. A search was carried out for articles published up to 2020 in the following databases: Medline, Cochrane and Lilacs.

Results: The reported prevalence of patients with CHIKV arthritis who progress to a chronic stage ranges from 4.1 to 78.6%. Knees, ankles, elbows, wrists, and metacarpophalangeal joints are the joints most frequently involved in the chronic phase. A study carried out by Matthews et al showed a prevalence of chronic joint symptoms of 25% after a mean follow-up of 20 months. The presence of chronic arthritis after CHIKV infection is approximately 14% according to a meta-analysis published by Rodríguez-Morales and collaborator, with

factors such as an age greater than 45 years and a high viral load during the acute phase being predictors of it. Two publications by Morrison and Sissoko et al established that female gender, polyarticular symmetric involvement, and osteoarthritis were risk factors for progression to chronic disease. Elevated blood levels of IL-6 and ferritin are related to the severity and chronicity of joint involvement.

Most patients define pain as intermittent; however, in 35% of cases it is permanent. The persistence and intensity of symptoms often affect the quality of daily life, leading to reduced daily activities, work disability, and depression.

The mechanism by which CHIKV induces chronic arthritis remains under investigation. One of the theories proposes that the persistence of the virus, mainly nucleic acids induce a persistent immune response.

There is consensus that RA is the most frequently found inflammatory rheumatic disease in patients recovered from CHIKV. Two studies published by Manimunda and Essackjee and colab respectively showed that between 5% and 36% of the patients met the 2010 ACR criteria for RA after viral infection after a follow-up that ranged from 10 to 27 months. Javelle et al. Published in 2015 a prevalence of up to 30% positivity of at least one of the markers in patients recovered from CHIKV, on the other hand Manimunda reported only 5% positivity for anti CCP and 100% negativity for RF.

Conclusion: Musculoskeletal involvement, mainly chronic arthralgias, is a frequent manifestation in a large number of patients recovered from CHIKV. To date, there is not enough information about the pathophysiology and the role of viruses in the development of subsequent inflammatory arthropathy.

PANLAR2021-ABS-1121

NEW ONSET OF HYPERCOAGULABLE STATE IN A RHEUMATOID ARTHRITIS PATIENT RECEIVING TOFACITINIB: IS COVID-19 THE CULPRIT?

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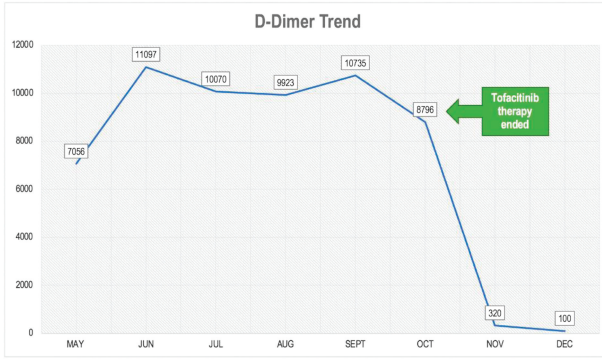
Objectives: The SARS-CoV-2 virus was first identified in December 2019, the infection was named COVID-19. The virus has been shown to increase the risk of thromboembolic events due to the hypercoagulable state triggered by systemic endothelial inflammation.

Methods: We present the possible association between tofacitinib therapy and increased D-Dimer in a patient with rheumatoid arthritis and COVID-19 infection.

Results: 32-year-old female with past medical history of rheumatoid arthritis diagnosed 10 years ago. Treatment included tofacitinib 2.5 mg twice a day, leflunomide 20 mg daily, folic acid 1 mg daily and vitamin D 800UI daily. She has been in remission since tofacitinib was initiated approximately 4 years ago. On April 2020, the patient reported flu-like symptoms, diarrhea and positive contact exposure to COVID-19. She underwent self-isolation, symptoms resolved within 10 days. She tested positive for COVID-19. She visited the rheumatology clinic on May, 2020 due increased polyarthralgia and fatigue. On physical exam she presented bilateral painful and swollen metacarpophalangeal and proximal interphalangeal joints, CDAI of 21. Elevation of D-Dimer was found (Figure 1). COVID-19 IgG antibodies test were positive. The patient received rivaroxaban 10 mg daily and referred to the hematology service. The treatment was changed to apixaban 2.5 mg twice a day, and prednisone 6 mg daily. Further follow up showed an increase D-dimer trend for approximate 6 months, despite anticoagulation therapy. It was decided to discontinue tofacitinib in October, 2020 and start tocilizumab 8 mg/kg. During her last visit in December 2020, the patient denied polyarthralgia, further CDAI was 0 and D-Dimer levels were back to normal.



Conclusion: The discussion is whether tofacitinib is a causal agent of thrombotic events (1), or if there is a background factor that contributes to the hypercoagulable state, as is the case of RA, where the risk of DVT is 0.3-0.7 per 100 patients/year compared to the general population where the risk is 0.1- 0.4 per 100 patients/year(2). Because SARS-CoV2 is a procoagulant risk factor and RA can be a causative agent as well, it is important to evaluate these patients, and if necessary, consider anticoagulant therapy. In this case, the levels of D-Dimer decreased to normal after discontinuing tofacinitib, which makes a possible association between the drug and an increase in the hypercoagulable state in COVID19 more evident. More studies are needed to confirm this possible relationship.

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PANLAR2021-ABS-1210

REACTIVE ARTHRITIS AFTER INTRAVESICAL BCG

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Objectives: To describe a case of reactive arthritis secondary to BCG immunotherapy.

Methods: Case report.

Results: The patient was a 59 years old, white, ex-smoker female with ureter cancer diagnosed in 2018 that underwent chemotherapy and surgical resection. One year after, she developed a bladder carcinoma in situ and was treated with intravesical BCG. Within the fifth application, out of six, she presented with monoarthritis of the right knee and flexor tenosynovitis of the right fingers, with no other clinical findings. Knee joint aspiration was performed with removal of 50 ml of inflammatory synovial fluid negative for crystals and microorganisms. Blood count, liver and kidney function tests and serum uric acid were normal. Figure 1 shows CRP (C reactive protein) and ESR (erythrocyte sedimentation rate) values according to the treatment. With the presumed diagnosis of post-BCG intravesical reactive arthritis, the discontinuation of the BCG intravesical infusion and the introduction of oral prednisone 40 mg daily with gradual tapering according to clinical and laboratory improvement was initiated. The steroid treatment duration was of six months. The ReA did not recur and the bladder carcinoma was treated with intravesical gemcitabine.

Conclusion: Recognition of reactive arthritis is essential for both symptomatic relief and to prevent joint deformity.

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PANLAR2021-ABS-1108

DEATHS OF PATIENTS WITH RHEUMATIC DISEASES AND COVID-19. A SERIES OF CASES

Vladimir Aroja Santos[1,2], Jaime Omar Velasco Flores[3], Indira Méndez García[4], and Grisel Arminda Lipa Aruquipa[5,6]. *[1]Reumatología, Hospital Municipal La Portada, [2]Reumatología, Centro Médico ECO-REUMA, [3]Rehabilitación y Fisioterapia, Hospital Municipal La Portada, La Paz, Plurinational State Of Bolivia, [4]Centro de Atención Psicológica, Corporación Universitaria del Caribe CECAR, Sincelejo, Colombia, [5]Nutrición, Hospital Municipal La Portada, [6]Nutrición, Centro Médico ECO-REUMA, La Paz, Plurinational State of Bolivia.*

Objectives: To describe a series of cases of deaths of patients with rheumatic diseases and COVID-19.

Methods: Descriptive, medical records review study, of patients with rheumatic diseases who died from COVID-19 and other healdeterminants in a Sentinel Center (La Portada Hospital) and exclusive management of the disease during the year 2020.

Results: During the year 2020 the hospital admitted around 500 patients. We observed a mortality of 27.8% in the common room and 64.5% in the intensive care unit (ICU). Within these percentages, three patients died with rheumatic disease and COVID-19. Which we describe below:

First case: 64-year-old female patient, with Rheumatoid Arthritis (RA) and cardiac arrhythmia, admitted to the emergency room with data of Acute Respiratory Distress Syndrome (ARDS) and pulmonary bacterial superinfection, with indication of admission to ICU, however, she was admitted to the Hospital in July (Figure 1), month in which there were no ICU units, dying on the fourth day in the common room.

Figure 1: Number of hospitalized patients and deaths in our Hospital, year 2020

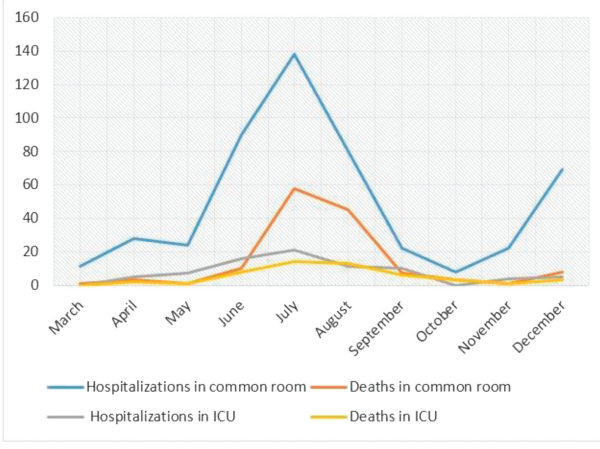
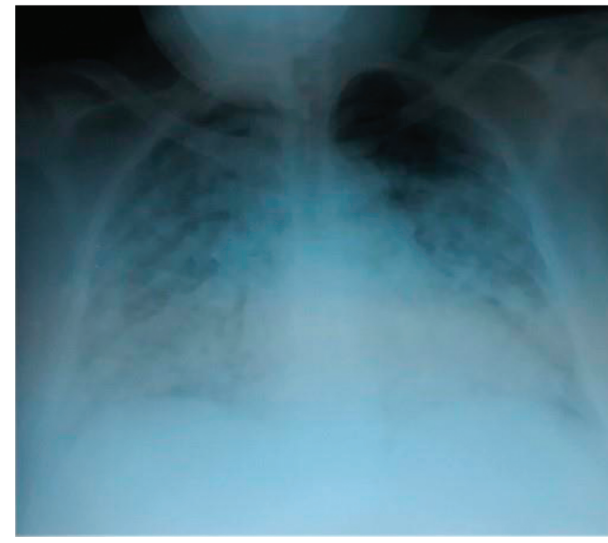


Figure 2: Chest X-ray of Second Patient Described



Second case: 60-year-old female patient with Systemic Lupus Erythematosus with skin and joint involvement, likewise admission with ARDS and pulmonary bacterial superinfection in July, also with indication for admission to ICU, dying on the second day in the common room (Figure 2).

Third case: 56-year-old female patient with RA, proximal interphalangeal synovitis and data of bacterial superinfection in the skin, on the sixth day she presented multisystemic involvement due to sepsis at the cutaneous focus, admission to ICU in October (month with availability of beds, Figure 1), however, she died a few hours later from SEPSIS due to a cutaneous focus.

Conclusion: The present clinical cases show the susceptibility to fatal outcomes of patients with rheumatic diseases, COVID-19 and other health determinants in a country with an oversaturated health system.

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PANLAR2021-ABS-1192

THROMBOTIC MICROANGIOPATHY IN A PATIENT WITH COVID-19: A CASE REPORT

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Objectives: To present a case of antiphospholipid syndrome associated with thrombotic microangiopathy induced by SARS-COV2 in a Colombian patient.

Methods: Clinical case report and medical literature review.

Results: A 33-year old man without past medical history and a recently family history of SARS-COV2 infection (dad died by COVID19), presented with a 16-days clinical course of fever, cough and progressive dyspnea. On medical examination was found drowsy, febrile (39.2 °C), with tachycardia and tachypnea, accessory muscle use and severe hypoxia, requiring oxygen high flow with immediately ICU admission. At 3rd day ICU stay, he had an acute myocardial infarction with non-ST segment elevation. Laboratory data revealed hemoglobin 9.1 g/dL, platelets 88000 with presence of 3+ schistocytes, bilirubin 1.3 mg/dl, LDH:858 mg/dl, low haptoglobin, direct-Coombs negative, PT 11 s, INR 1, PTT 59.7 s, creatinine 11 mg/dl, D-dimer 3927 µg/L, positive hematuria and proteinuria in urinalysis, with SARS-COV2 IgG and IgM positve and negative RT-PCR. An echocardiogram reported inferior wall left ventricular (LV) hypokinesia and LV ejection of 25% without hypertrophy or dilatation, valvular

dysfunction neither pulmonary hypertension. Coronary angiography revealed no significant obstructions. Given these findings a presumptive diagnosis of COVID19 associated thrombotic microangiopathy was made, and daily plasma exchange (PEX) with dialysis was initiated. After 5 PEX sessions there was an improved of mental status, renal function and resolution of hemolysis. Additional laboratory data revealed normal ADAMTS13 levels, triple autoantibodies positive levels for antiphospholipid syndrome considering anticoagulation therapy with weekly 30 mg of warfarin. Patient gradually improved during hospitalization, and became ambulatory. At 15 weeks of discharge patient was confirmed as having antiphospholipid syndrome.

Conclusion: Here we present the clinical case of a patient with antiphospholipid syndrome and thrombotic microangiopathy secondary to COVID19 infection, which remark the interesting causal association among SARS-COV2 infection, autoimmunity and prothrombotic predisposition in a previously healthy young man.

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PANLAR2021-ABS-1174

DESCRIPTIVE OBSERVATIONAL STUDY OF RHEUMATIC PATIENTS RECEIVING RITUXIMAB DURING ONE YEAR OF COVID19 PANDEMIC

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Objectives: To describe the rate of COVID19 infection in rheumatic patients receiving rituximab (RTX) and the prognosis of these patients.

Methods: Descriptive study of patients from our Rheumatology service who received RTX for any rheumatic disease during 2020, it was retrospectively analyzed the presence of confirmed COVID19 infection, as well as its demographic and clinical variables, through digital medical records.

Results: During 2020, 20 patients (7 vasculitis, 4 AR, 4 IIM, 3 MCTD, 1 SLE and 1 pSS) received RTX (12 women (60%) and 8 men (40%); mean age 51.05 years). The mean time since the first dose of RTX was 58.6 months with a mean cumulative dose per patient of 5936 mg and the last dose of 666 mg.

Nasopharyngeal PCR test was performed on 13 patients, of which 8 were positive (6 after COVID19 symptoms and 2 after COVID19 + contact) and 5 negative (3 after COVID19 + contact and 2 due to hospital admission).

Comparing the 8 patients who had COVID19 infection versus the 12 who did not, there were no differences regarding age, sex, mean time of exposure to RTX, mean accumulated dose of the drug or last dose. There were no differences between patients infected or not by COVID19 with respect to those considered as risk factors for complicating this infection, nor with respect to DMARDs associated with RTX (Table 1).

Table 1. Demographic and RTX treatment characteristics; number of patients with risk factors for complications of COVID19 infection.

	RTX patients (n=20)	COVID19 + (n=8)	COVID19 – (n=12)	p
Mean age (years)	51.05 ±13.80	44.62 ±14.10	55.33 ±12.34	0.089
Sex (♀/♂)	12/8	6/2	8/4	0.852
Mean exposure time to RTX (months)	58.60 ±42.24	53.12 ±38.17	62.25 ±46.03	0.649
Mean cumulative dose of RTX (mg)	5936 ±3566	4735 ±3610	6735 ±3453	0.229
Last median dose of RTX (mg)	666 ±227	637 ±226	685 ±236	0.624
High blood preause	5	2	3	1.000
Mellitus diabetes	4	3	1	0.110
Smoking habit	4	1	3	0.494
Lung disease	2	1	1	0.761
Heart disease	1	0	1	0.402
Obesity (BMI >30)	2	1	1	0.761
Corticosteroids	12	6	6	0.264
DMARDs*	16	6	10	0.661

**DMARDs: COVID19 positive: MTX (n=4), AZA (n=2), no DMAD (n=2); COVID19 negative: MTX (n=5), AZA (n=2), MMF (n=2), LFN (n=1), no DMAD (n=2).*

Table 2. Treatment prescribed to patients with RTX and COVID19 positive.

Patient	Treatments	HFNC/NIV
1	Oxygen therapy, HCQ, CS, LMWH, RDV, ATB, NAC	No/No
2	Oxygen therapy, CS, LMWH, RDV, TCZ, ATB, VITD3	Yes/Yes
3	AZM, NAC, VITD3	No/No
4	Oxygen therapy, CS, LMWH, ATB, NAC	No/No
5	Oxygen therapy, HCQ, CS, LMWH, ATB	No/No
6	Oxygen therapy, CS, LMWH, RDV, TCZ, ATB, hyperimmune plasma	Yes/Yes
7	Oxygen therapy, HCQ, AZM, NAC, VITD3	No/No
8	Oxygen therapy, CS, LMWH, RDV, TCZ, ATB, NAC, hyperimmune plasma	Yes/No

HCQ: Hydroxychloroquine; CS: Corticosteroids; LMWH: Low molecular weight heparin; RDV: Remdesivir; ATB: antibiotics; NAC: N acetyl cysteine; TCZ: Tocilizumab; VITD3: Cholecalciferol; AZM: Azithromycin; HFNC: High-flow nasal cannula oxyben therapy; NIV: Noninvasive ventilation.

7 (87.5%) of the 8 patients with COVID19 infection developed bilateral pneumonia and required admission for a mean time of first hospitalization of 36 days. The pharmacological treatment they received is shown in Table 2. The mean COVID19 infection severity index in our patients was 5.25, according the WHO classification (1).

Nasopharyngeal PCR became negative in a mean of 47 days, and no SARS-CoV-2 IgG has developed to date. Three patients required NIV and two were admitted in ICU. After hospital discharge, 3 patients were readmitted several times due to clinical worsening, with a new nasopharyngeal PCR test positive and the need for hospital retreatment. One patient died due to an intestinal perforation.

Conclusion: A high percentage (40%) of our patients who received RTX for 1 year had SARS CoV-2 infection. They did not present any known risk factors for complication from this infection; despite this, the COVID-19 severity was high in the majority, requiring prolonged hospitalization and even the need for readmission. The PCR test became negative very late and no patient developed IgG SARS CoV-2.

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PANLAR2021-ABS-1230

CHARACTERISTICS OF PATIENTS WITH AUTOIMMUNE RHEUMATIC DISEASES AND COVID-19 ADMITTED TO A SENTINEL HOSPITAL

Vladimir Aroja Santos[1,2], Jaime Omar Velasco Flores[3], Indira Méndez García[4], and Grisel Arminda Lipa Aruquipa[5,6]. *[1]Reumatología, Hospital Municipal La Portada, [2]Reumatología, Centro Médico ECO-REUMA, [3]Rehabilitación y Fisioterapia, Hospital Municipal La Portada, La Paz, Plurinational State Of Bolivia, [4]Centro de Atención Psicológica, Corporación Universitaria del Caribe CECAR, Sincelejo, Colombia, [5]Nutrición, Hospital Municipal La Portada, [6]Nutrición, Centro Médico ECO-REUMA, La Paz, Plurinational State Of Bolivia.*

Objectives: To describe the characteristics of patients with autoimmune systemic rheumatic diseases admitted to a Sentinel Hospital and compare them with a control group.

Methods: Descriptive and observational study. We reviewed the medical records of patients with autoimmune systemic rheumatic diseases and compared their variables with a control group matched for age, gender, body mass index, and hospitalization date. The study was carried out during the first six months of the pandemic in 2020. We collected the variables demographic, clinical, laboratory, the days of hospitalization, the need for supplemental oxygen, the need for admission to the intensive care unit (ICU) and / or mechanical ventilation, admission to the ICU and / or ventilator use, and the mortality in the two groups.

Results: We included six patients with autoimmune systemic rheumatic diseases and eighteen controls. The demographic and clinical variables are

described in Table 1, where we only observed that diffuse interstitial lung disease presented statistically significant differences. Rheumatoid Arthritis was the most frequent pathology, four patients had disease activity at the time of hospitalization and methotrexate was the most used drug. Table 2 describes the variables clinical and laboratory associated with COVID-19. We show that lymphocytes, hemoglobin, thrombocytes and creatinine were statistically significant differences between both groups, on the other hand, there were no differences between the need for supplemental oxygen, days of hospitalization, criteria for admission to ICU and / or mechanical ventilation, admission to ICU and/or ventilator use and mortality between the two study groups.

Table 1: Demographic and clinical characteristics

	Patients with autoimmune systemic rheumatic diseases n=6	Control group n=18	*p value*
Age	55,1	53,8	*0,76*
Female	100%	100%	*1,00*
Body mass index (Kg/m²)	27,1	31,2	*0,06*
Systemic autoimmune rheumatic disease			
- Rheumatoid arthritis	3 (50%)	-	-
- Systemic lupus erythematosus	1 (16, 6%)	-	-
- Systemic Sclerosis	1 (16, 6%)	-	-
- Small vessel vasculitis	1 (16, 6%)	-	-
Clinical characteristics of patients with autoimmune systemic rheumatologic disease		-	-
- Evolution time (years)	8	-	-
- Active disease	4 (66, 6%)		
Treatment		-	-
- Methotrexate	3 (50%)	-	-
- Hydroxychloroquine	1 (16, 6%)	-	-
- Prednisone <10mg / day	3 (50%)	-	-
- Prednisone> 10mg / day	3 (50%)		
Comorbidities			
- Arterial hypertension	4 (66, 6%)	7 (38, 9%)	*0,25*
- Diabetes mellitus type 2	0	4 (22, 2%)	*0,22*
- Diffuse interstitial lung disease	5 (83, 3%)	0	*>0.0001*
- Asthma	0	1 (5, 6%)	*0,57*
- Chronic kidney disease	1 (16, 6%)	0	*0,08*
- Sequel tuberculosis	1 (16, 6%)	0	*0,36*
- Upper gastrointestinal bleeding	3 (30%)	0	*0,08*
- Cardiac arrhythmia	1 (16, 6%)	0	*0,08*
- Hydroelectrolyte imbalance	5 (83, 3%)	13 (72, 2%)	*0,60*
- Over-aggregated lung infection	3 (50%)	7 (38, 9%)	*0,65*
- Extra pulmonary infection	2 (33, 3%)	2 (11, 1%)	*0,22*

Table 2: Clinical and laboratory characteristics suggestive of COVID-19

	Patients with autoimmune systemic rheumatic diseases n=6	Control group n=18	*p value*
Suggestive symptoms of COVID-19			
- Dry cough	4 (66, 6%)	17 (94, 4%)	*0,08*
- Fever	5 (83, 3%)	15 (83, 3%)	*1,00*
- General discomfort	6 (100%)	12 (66, 7%)	*0,11*
- Arthralgia / Arthritis	3 (50%)	6 (33, 3%)	*0,48*
- Myalgia	2 (33, 3%)	8 (44, 4%)	*0,65*
- dyspnea	6 (100%)	11 (61, 1%)	*0,07*
- Diarrhea	1 (16, 6%)	2 (11, 1%)	*0,73*
- Headache	1 (16, 6%)	8 (44, 4%)	*0,24*
- Rhinorrhea	1 (16, 6%)	2 (11, 1%)	*0,73*
- Pleural pain	1 (16, 6%)	1 (5, 6%)	*0,41*
- Loss of smell	1 (16, 6%)	0	*0,08*
- Loss of taste	1 (16, 6%)	0	*0.08*
- Abdominal pain	1 (16, 6%)	1 (5, 6%)	*0,41*
- Confusion	1 (16, 6%)	1 (5, 6%)	*0,41*
Laboratories			
- Hemogram (mm³)	12955	11308	*0,53*
- Neutrophils (mm³)	11772	7260	*0,14*
- Lymphocytes (mm³)	1160	1820	*0,02*
- Hemoglobin (g/dL)	11,0	15,8	*0,001*
- Thrombocytes (mm³)	236166	332250	*0,02*
- Dimer D (ug/mL)	2,6	4,8	*0,31*
- Ferritin (mg/mL)	277	117,7	*0,12*
- Aspartate amino transferase (U/L)	37,8	47,8	*0,18*
- Alanine amino transferase (U/L)	33,1	54,6	*0,07*
- Lactate dehydrogenase (U/L)	565,3	606,7	*0,79*
- Creatinine (mg/dL)	1,1	0,8	*0,02*
- Erythrocyte sedimentation rate (mm/hour)	31,3	12,3	*0,07*
- Protein-C-reactive (mg/dL)	5,3	5,3	*0,97*
Supplemental oxygen	6 (100%)	17 (94, 4%)	*0,57*
Days of hospitalization	20,5	15,2	*0,42*
Criteria for admission to ICU and / or mechanical ventilation	3 (50%)	5 (27, 8%)	*0,33*
Admission to ICU and / or mechanical ventilation	1 (16, 6%)	2 (11, 1%)	*0,73*
Mortality	3 (50%)	4 (22, 2%)	*0,21*

Conclusion: Our results show that patients with autoimmune systemic rheumatic diseases required the same frequency of supplemental oxygen, had similar criteria for admission and similar frequency of admission to ICU and / or use of mechanical ventilation, in addition to the same mortality compared to a control group matched by age, gender, body mass index and hospitalization date.

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PANLAR2021-ABS-1272

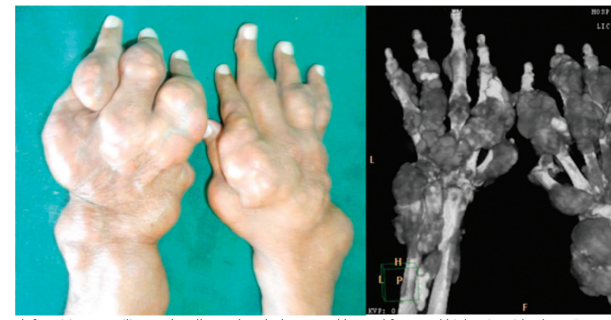
CHRONIC TOPHACEOUS GOUT - ABOUT A CASE

Araceli Chico Capote, Freddy Jose Meza Solis, Ramón García Hernández, and Fernando Igancio Toro Gonzalez.

Objectives: To describe the clinical case of a patient with chronic tophaceous gout with unusual joint deformity and limitation.

Methods: We present the case of a patient with chronic tophaceousgout, with extensive joint damage. We also search PubMed, Ovid Medline and google scholar, (2016-2021) for chronic tophaceousgout with deformity and articular limitation.

Results: A 67-year-old man, of rural descent, with a history of being a smoker and alcoholic, suffering from arterial hypertension and gout of 10 years duration, for which he had no medical control; He arrived at our hospital center complaining of joint pain of moderate intensity, together with joint deformities prevailing at the elbows, hands, knees, ankles and feet, and high uric acid values. See Figure 1.



deformities prevailing at the elbows, hands, knees, ankles and feet, and high uric acid values. See Figure 1.

Conclusion: We present the case of a patient with chronic tophaceous gout, with large joint deformities with severe limitation of movement, which in our setting is rare without the presence of chronic kidney disease or enzyme disorders. His severity was attributable to poor adherence to treatment.

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PANLAR2021-ABS-1379

TRANSLATION INTO SPANISH OF THE METHOTREXATE INTOLERANCE SEVERITY SCORE QUESTIONNAIRE IN ECUADORIAN POPULATION

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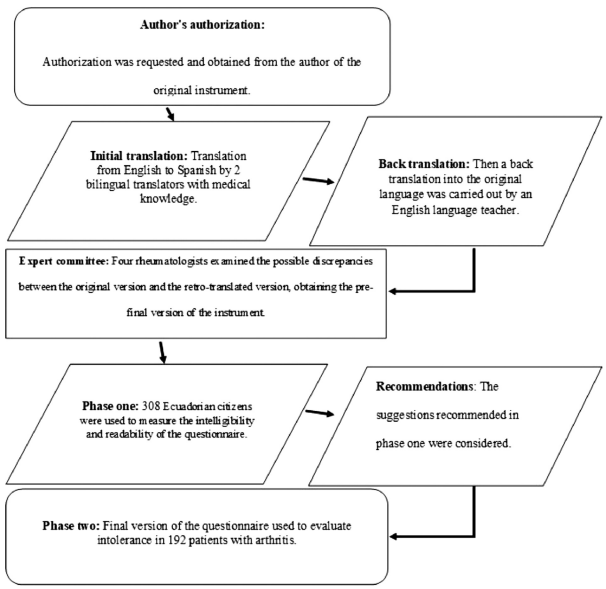
Objectives: To translate the MISS questionnaire into Spanish.

Methods: An observational, cross-sectional study, utilizing a translation from front to back of the MISS questionnaire. A translation from front to back of the MISS questionnaire from English to Spanish was developed (figure 1). The detailed process was carried out based on the translation and cultural adaptation guidelines[1,2] The study was carried out to guarantee the validity of the results (figure 1). 308 Ecuadorians older than 18 years who had no healthcare experience, and with a completed high school or higher grade of studies were included. They answered the questionnaire digitally, which was carried out with the intention of measuring the level of intelligibility and readability of the translated questionnaire.

Results: 308 individuals with a mean age of 23 years completed phase 1, 64.6% were women, and 97.4% of those surveyed had a college degree or were in college. The median and mode of intelligibility and readability of the questionnaire was 1 for each of the questions asked; ie minimally confusing.

Conclusion: The version translated into Spanish of the MISS questionnaire is a valid and reliable tool for the detection of intolerance to MTX.

Figure 1. Flow chart of the translation and validation process of the EGIM questionnaire.



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PANLAR2021-ABS-1418

TRADITIONAL CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH IMMUNE-MEDIATED DISEASES

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Objectives: To determine the frequency of traditional cardiovascular (CV) risk factors in patients with immune-mediated inflammatory diseases (IMIDs) and to compare them to a control group.

Methods: Descriptive, cross-sectional study in a cohort of patients with RA, who met 1987 ACR and 2010 ACR / EULAR criteria. It was carried out in 2 phases: the first included a standardized questionnaire according to the variables included in the project "Cardiovascular Risk in IMID (PINV15-0346), of the National Council of Sciences and Technology (CONACYT). In the second part, the serum sample was taken in a specialized laboratory for the determination of CV risk biomarkers (e.g. endothelin, TNF alpha, E-selectin, homocysteine, apolipoprotein, fibrinogen and ultrasensitive CRP). The quantitative variables were presented as means and their respective standard deviations, and the qualitative variables as frequencies. For the comparisons between variables, chi square was used for the dichotomous ones and student's t for the continuous ones. The statistical program SPSS 23 was used. A statistical significance $p \leq 0.05$ was considered.

Results: 197 patients with IMIDs were included; 49 in the control group. 85.4% were women, with a mean age of 44,5 ± 16,69 years, and mean disease duration of 130.9 ± 102.64 months. 11.6% were smokers and 63.5% were sedentary. When the different traditional CV risk factors were compared between the IMIDs and the control group, significant differences were found regarding smoking (p 0.04) and physical inactivity (p 0.01) which were more frequent in the IMIDs group. On the other hand, the control group more frequently had a family history of ischemic heart disease (p 0.001), higher average weight (p 0.001), BMI (p 0.001), systolic (p 0.02) and diastolic blood pressure (p 0.001), and also had higher mean levels of total cholesterol (p 0.01), LDL (p 0.001) and lower mean HDL (p 0.003). These data are depicted in Tables 1 and 2.

	All IMIDs n: 197	n: 49	p
Average age (years ± SD)	44,5±16,69	45,98±15,79	0,52
Average weight (kg ± SD)	69,93±16,31	78,72±14.49	0,001
Average size (cm ± SD)	158,29±20,04	1,61,38±8,2	0,28
Average (BMI ± SD)	27,01±5,18	30,39±5,76	0,001
SBP mmHg ± SD	116,20±16,76	121,79±13,77	0,02
DBP mmHg ± SD	72,74±11,21	77,98±9,53	0,001
TC mg/dL ± SD	168,8±42,3	186,57±40,04	0,01
LDL mg/dL ± SD	98,61±35,59	118,36±35,20	0,001
HDL mg/dL ± SD	47,97±12,33	42,02±10,1	0,003
TG mg/dL ± SD	112,19±52,51	130,98±81,16	0,15

	ALL IMIDs n: 197	RA Cohort n: 75	SLE Cohort n: 74	SSc Cohort n: 48	P
Male gender n (%)	28 (14,2)	11 (14,7)	8 (10,8)	9 (18,8)	0,4
High blood pressure n (%)	64 (32,5)	25 (33,3)	23 (31,1)	16 (33,3)	0,9
Diabetes n (%)	9 (4,6)	5 (6,7)	2 (2,7)	2 (4,2)	0,5
Dyslipidemia n (%)	27 (13,7)	13 (17,3)	11 (14,9)	3 (6,3)	0,2
Obesity n (%)	28 (14,2)	9 (12)	15 (20,3)	4 (8,3)	0,1
Smoking					0,01
SI n (%)	23 (11,6)	9 (12)	12 (16)	2(4,2)	
Ex –smoker n (%)	13 (6,6)	6 (8)	0	7 (14,6)	
Physical inactivity (%)	125 (63,5)	43 (57,3)	48 (64,9)	34 (70,8)	0,1
Family history of IC disease n (%)	39 (19,8)	16 (21,3)	9 (18,9)	9 (18,8)	0,9

Conclusion: We found a significant difference regarding smoking and physical inactivity in the IMIDs group vs the control group, which is an important risk factor for CV disease. Optimal treatment is necessary to reduce this risk in patients with IMIDs, including optimal anti-inflammatory treatment, as well as treatment targeting the improvement of these well-known traditional risk factors. In this context, the application of CV risk algorithms could also be of benefit.

PANLAR2021-ABS-1259

FREQUENCY OF NEOPLASMS IN PATIENTS TREATED WITH BDMARD AND STDMARD IN THE RHEUMATOLOGY SERVICE OF PADRE BILLINI HOSPITAL, DOMINICAN REPUBLIC

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Objectives: To assess the frequency of neoplasms associated with the use of bDMARD and ctDMARD in the Rheumatology service of the Hospital Padre Billini

Methods: Observational, extensive and transversal study. Data were collected from the clinical records of patients with rheumatological diseases using bDMARD and ctDMARD from the Padre Billini Hospital from November 2013 to November 2020. Inclusion criteria: patients>18 years, diagnosis of rheumatological disease, who are using bDMARD or ctDMARD for at least 6 months. The personal and family history of neoplasms, mammography reports, pap smears, tumor markers, chest radiography, thyroid sonography and protein electrophoresis were evaluated. Data were analyzed with SPSS V23.

Results: A total of 1142 patients met inclusion criteria. 74.1% female. with an average of 5.2 + 2.3 years of duration of the bDMARD and ctDMARD. 76.7% (877) had a diagnosis of RA, 10.5% (121) Spondyloarthritis, 4.7% (54) Psoriatic Arthritis, 3.94% (45) JIA, 3.4% (39) Psoriasis, other 0.52% (6). Average diagnosis of RA 7+ 3.4 years, JIA 5+ 2.4 years, spondyloarthritis 4 + 1.7, psoriatic arthritis 5 + 3 years, Psoriasis 3 + 1.2 years. 25.13% (287) of the patients are on therapy with tocilizumab, 23.9% adalimumab, 16.50% ctDMARD, 10.9% rituximab. Etarnecept 7.96%, secukinumab 7.79%, golimumab 6.59%, Ustekinumab 0.96% and guselkumab 0.08%. Neoplasms were not reported in these patients.

Conclusion: In this study, no neoplasm events associated with the use of bDMARD and ctDMARD were reported in patients with rheumatological diseases during a 7-year review.

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PANLAR2021-ABS-1265

A CASE OF CHRONIC RECURRENT VOGT-KOYANAGI-HARADA DISEASE REQUIRING LONG-TERM IMMUNOSUPPRESSIVE THERAPY

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Objectives: Vogt-Koyanagi-Harada disease (VKHD) is a systemic autoimmune disease usually presenting as a bilateral granulomatous panuveitis. It mainly affects females and individuals with darker pigmentation. The pathophysiology is not completely understood but involves CD4+ T-cell mediated autoimmunity against melanocytes, possibly initiated by cross reactivity against cytomegalovirus. Tissues containing melanocytes may be affected, such as those of the eyes, central nervous system, skin and internal ear. Patients may have vitiligo, meningismus, hearing loss, tinnitus and vertigo. This report aims to show how our team has been approaching such pathology.

Methods: Medical record review.

Results: A 53-year-old woman was diagnosed with VKHD in 1997 after an episode of eye pain, conjunctival injection, partial visual loss and occipital pain. Anterior uveitis and facial vitiligo were detected. She received intravenous pulse cyclophosphamide. Azathioprine and prednisone were initiated. Over the years, the disease recurred, resulting in retinal detachment. In 2004, eye flare was resolved with pulse cyclophosphamide. In 2013, uveitis was detected shortly after azathioprine was stopped. Resolution was achieved by increasing the dosage of prednisone. In 2018, recurrence in the left eye was resolved with topical dexamethasone, a taper of prednisone and by increasing the dosage of azathioprine. As of 2021, the patient has no signs of active disease and takes azathioprine 150 mg/day.

Conclusion: The diagnosis of VKHD is based on clinical findings. The standard initial treatment is high dose systemic corticosteroid therapy (prednisone 1-1.5 mg/kg/day) for at least 6 months. About 17-73% of patients progress to chronic recurrent disease, characterized by granulomatous anterior uveitis, and often resistant to systemic steroid therapy. Long term immunosuppression with steroid-sparing agents such as azathioprine, methotrexate and cyclosporine is frequently needed. In unresponsive cases, infliximab or rituximab may be considered.

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PANLAR2021-ABS-1270

VIRCHOWIAN LEPROSY AND PSORIASIS ARTHRITIS: CASE REPORT

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Objectives: Leprosy is an infectious disease caused by M. leprae and M. lepromatosis that mainly involves skin and peripheral nerves, although it can also occur in a disseminated way. In the Virchowian form, the patient has deficient immunity against the bacilli, which results in a high bacillary load and a severe clinical presentation.

The following report will present the case of a patient with several disorders caused by Virchowian leprosy and psoriatic arthritis.

Methods: Medical record review.

Results: 51-year-old man, with previous diagnosis of Hypertension, DM2, psoriasis, psoriasis (at 22), arthritis (at 30), history of alcoholism, active smoker and family history of leprosy (father).

He had persistent symptoms of arthralgias in his feet and eventually in his hands and active skin lesions, with good control using Adalimumab and Methotrexate.

In February 2018, he was admitted with diffuse cutaneous symptoms, similar to a psoriasis. The rash was difficult to control, with an ulcerated lesion in the inguinal region, presumed to be a possible adverse reaction to Adalimumab, therefore medication was discontinued. The patient did not have alopecia, xerostomia, xerophthalmia, dysphagia and Raynauds. Biopsies of skin lesions were performed with inconclusive results. The hypothesis of Norwegian scabies was raised and treated with antibiotics and antifungals.

After being discharged from the hospital, he was evaluated at the psoriatic arthritis clinic. During the evaluation, an alteration in the earlobe was observed, with suspicion of leprosy. The biopsy of the lesion was performed in June 2019 and showed morphological findings compatible with dimorphic-dimorphic leprosy. From the diagnosis, Methotrexate was maintained and Standard polychemotherapy (PCT) was started with rifampicin, dapsone and clofazimine, with improvement in the articular condition and, subsequently, thalidomide.

Patient stopped using the medication on his own, with a gap of 9 months. Arthritis worsened (with deformity of the toes and axial involvement) and skin lesions resurged, with the presence of painful nodules on the trunk and right arm. In February 2021, a new biopsy was performed, and diagnosed as a Hansenoma. Treatment with MDT and Thalidomide was resumed.

Conclusion: Virchowian leprosy is the multibacillary form of the disease, which can affect several systems, as seen in the case above. After treatment, skin lesions are expected to remit, however, deformities and future immunological reactions may persist.

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PANLAR2021-ABS-1284

EVALUATION OF THE RHEUMATOID FACTOR IN FISHERMEN OF THE COMMERCIAL FLEET OF TEFÉ, AM

Wuerles Barbosa.

Background: Fishing in the Amazon is considered the main source of income for riverside populations, with the region being one of the major producers and exporters of fish to different parts of Brazil and the world. Therefore, the fishing activity has a great influence on the movement of the economy, the generation of jobs, the distribution of income and the food of the local populations. Despite the importance of this sector in northern Brazil, most fishermen do not work with more advanced technologies to carry out their activities, in such a way that there is a great demand for prolonged physical effort on the part of these workers. The presence of musculoskeletal conditions, as well as the development of osteoarticular and autoimmune diseases is frequent in this working class. Thus, it is essential to investigate changes in inflammatory parameters, such as the rheumatoid factor and the erythrocyte sedimentation rate.
Objectives: To evaluate the serum level of rheumatoid factor in fishermen in the commercial fleet of Tefé, Amazonas.
Methods: The present work was carried out with the support of the municipal departments of health (SEMSA) and production and supply (SEMPA) in the city of Tefé, Amazonas. Fishermen active in the Tefé fishing fleet were included in the research, where blood samples were taken following the 12-hour fasting orientation and immediately centrifuged to obtain the serum. The analysis was performed using a commercial kit, following the manufacturer's guidelines, with the reference value being less than 8 IU / mL. For the quantitative variables, the mean and standard deviation were calculated and for the qualitative frequency and percentage.
Results: The sample consisted of 64 workers, of which 40 (63%) were male and 24 (37%) female. The mean age was 44.8 years (SD 11.9 years). It was observed that 6 (9%) workers had results greater than 8 IU / ml and 26 (40.6%) reported having some joint symptom, such as arthralgia and arthritis.
Conclusion: 9% of the sample had levels of rheumatoid factor higher than normal, with a potential implication of future rheumatological problems, including rheumatoid arthritis. Public attention to fishermen's health allows an improvement in their quality of life, as well as in the reduction of risk factors and their illness.

PANLAR2021-ABS-1436

DISABILITY AND PERCEIVED STRESS IN ANTIPHOSPHOLIPID SYNDROME: CORRELATION WITH COGNITIVE IMPAIRMENT

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Objectives: To determine disability and perceived stress and their correlation with cognitive impairment (CI) in primary antiphospholipid syndrome (PAPS).
Methods: Cross-sectional analysis, including patients with PAPS and paired controls for cardiovascular risk factors, determining CI with Montreal Cognitive Assessment (MoCA), disability with World Health Organization Disability Assessment Schedule (WHODAS 2.0) and perceived stress with Perceived Stress Scale (PSS-14). Descriptive statistics and Spearman correlation coefficient were used.
Results: Sixty-three PAPS patients and 60 paired matched controls by age, sex and cardiovascular risk factors were included. In PAPS, age 48.0 ± 13.5 years, thrombotic artery events (TAE) (34.9%) and stroke (30.2%) were found (Table 1). Disability was documented in most domains of WHODAS 2.0 and total score, being higher in participation and mobility; stress level was normal (PSS-14 with median 22.00, IQR 14.0-27.0) and 65.1% had CI. PAPS had a greater deterioration in the WHODAS 2.0 total score (p 0.017) and MoCA (p < 0.0001). The personal domains and total WHODAS 2.0 score correlated inversely with MoCA. Daily activities (rho = -0.419, p 0.001) and personal care (rho = -0.407, p 0.001) correlated the most (Table 2). TAE confered risk for CI (OR 10.32, CI 1.1-99.8, p 0.044).

Table 1. Demographic characteristics and comorbidities of PAPS patients (n: 63) and controls (n: 60).

Variables	PAPS, n (%)	Controls, n (%)	p*
Age (years) π	48.0 (±13.5)	47.7 (±13.3)	0.892***
Female gender	49 (77.8)	44 (73.3)	0.566
Education (years) μ	**12.0 (9.0-16.0)**	**16.0 (12.0-16.0)**	**0.032****
Marital status			
Non-married	23 (36.5)	18 (30.0)	0.444
Married	40 (63.5)	42 (70.0)	
Currently out of work	16 (25.4)	18 (30.0)	0.568
Live alone	4 (6.3)	6 (10.0)	0.341**
Family history of CI	**5 (7.9)**	**0 (0.0)**	**0.033****
Smoking	8 (12.7)	5 (8.3)	0.431
History of CET	1 (1.6)	2 (3.3)	0.482**
Hearing disorder	4 (6.3)	5 (8.3)	0.469**
Vision disorder	8 (12.7)	4 (6.7)	0.206**
GAD	**15 (23.8)**	**0 (0.0)**	**<0.0001****
MDD	11 (17.5)	4 (6.7)	0.059**
Hypothyroidism	**15 (23.8)**	**5 (8.3)**	**0.020**
Diabetes mellitus	**5 (7.9)**	**14 (23.3)**	**0.018**
Arterial hypertension	15 (23.8)	13 (21.7)	0.777
Obesity	17 (27.0)	20 (33.3)	0.443
Dyslipidemia	**23 (36.5)**	**7 (11.7)**	**0.001**
Seizures	4 (6.3)	0 (0.0)	0.119
Consumption of CI-associated drugs	**17 (27.0)**	**0 (0.0)**	**<0.0001****
Coronary artery disease	3 (4.8)	0 (0.0)	0.131**
COPD	2 (3.2)	3 (5.0)	0.477**
Variables in PAPS		**Frequency**	
Total thrombotic events (number) μ		2.0	1.0-3.0
TAE		22	34.9%
Treatment			
Acetylsalicylic acid		17	27.0%
Oral anticoagulant		59	93.7%
Chloroquine		11	17.5%
Glucocorticoid		6	9.5%
Immunosuppressant		8	12.7%

CI: cognitive impairment, CET: craniocencephalic trauma, GAD: generalized anxiety disorder, MDD: major depressive disorder, COPD: chronic obstructive pulmonary disease, TAE: thrombotic artery events.
π Mean ± standard deviation.
μ Median and IQR.
* Chi square test.
** Fisher's exact test.
*** T student for independent samples.
**** Mann-Whitney test.

Table 2. Correlation of disability and perceived stress with cognitive impairment in PAPS patients (n: 63).

Variables	MoCA (rho*)	p*
DISABILITY		
Cognition	**-0.256**	**0.042****
Mobility	**-0.356**	**0.004****
Self-care	**-0.407**	**0.001****
Getting along	-0.064	0.618
Life activities	**-0.419**	**0.001****
Participation	-0.154	0.229
WHODAS 2.0 total score	**-0.338**	**0.007****
PERCEIVED STRESS		
PSS-14 score	-0.057	0.656

WHODAS: World Health Organization Disability Assessment Schedule, PSS: Perceived Stress Scale, MoCA: Montreal Cognitive Assesment.
* Spearman's correlation.
** Statistically significant.

Conclusion: In patients with PAPS, disability quantified by WHODAS 2.0, especially personal domains, had an interdependence with cognitive ability. New treatment options and neurocognitive stimulation strategies are necessary to maintain functionality and prevent further cognitive dysfunction.

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PANLAR2021-ABS-1312

DESCRIPTION OF THE FUNDUS OF THE EYE AND ITS ASSOCIATION WITH CAPILLAROSCOPY IN PATIENTS WITH A DIAGNOSIS OF SYSTEMIC SCLEROSIS

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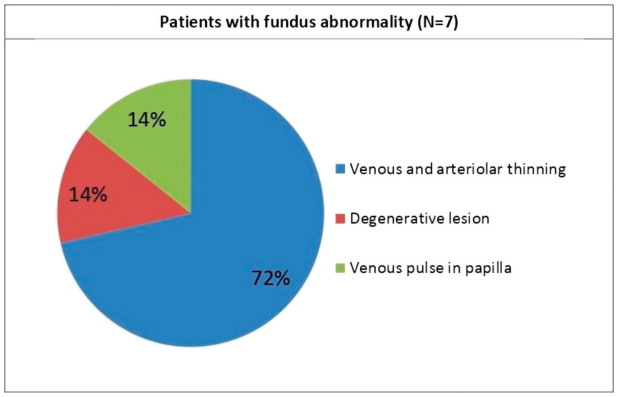
Objectives: To describe the findings in the ocular microvasculature through the fundus and its association with capillaroscopy in patients with systemic sclerosis.
Methods: Observational, analytical, cross-sectional study. Patients with a diagnosis of systemic sclerosis (ACR / EULAR 2013 criteria) were included for

6 months, excluding patients with previous ocular disease (posterior segment pathology, acute trauma, active infection, sequelae), a history of other rheumatological diseases, nervous system diseases central nerve with involvement of the second cranial nerve, oncological pathology, patients with diabetes and poorly controlled arterial hypertension. Fundus and capillaroscopy were performed on all of them, blind to the characteristics of the patient by the professional operator.

Continuous variables were expressed as mean and standard deviation or median and interquartile range according to distribution, categorical variables as proportions, and were analyzed using Fisher's exact test.

Results: A total of 34 patients with systemic sclerosis were included, with a mean age in years of 55.4 (± 12.7), a mean of diagnosis in years of 11.8 (± 6.17) and a mean age of the phenomenon Raynaud's in years of 11.9 (± 6.77). 20.59% (n: 7) of the patients presented abnormalities in the fundus, with arteriolar and venous thinning being the most frequent (n: 5), followed by degenerative lesion (n: 1) and venous pulse in the papilla (n: 1). 67.65% (n: 23) of the patients presented SD pattern in capillaroscopy, showing early SD pattern in 17.65% (n: 6), active SD in 11.76% (n: 4) and Late SD in 38.24% (n: 13). Fundus abnormalities were found in 26.09% of patients with SD pattern versus 9.09% of patients with negative capillaroscopy, with no significant differences between both groups (p = 0.252). These data are depicted in Figures 1 and 2.



Capillaroscopy and fundus findings		
	Abnormal fundus %	Normal fundus %
SD pattern (N=23)	26,09% (6)	73,91% (17)
Normal capillaroscopy (N=11)	9,09% (1)	90,91% (10)

Conclusion: Patients with systemic sclerosis may have abnormal findings in the fundus, among which arteriolar and venous thinning stand out. The association between fundus abnormalities and SD pattern was not statistically significant in the present study. However, given that a proportion of patients with fundus alterations presented SD pattern, studies with a larger number of patients are required to confirm this association.

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PANLAR2021-ABS-1315

EXPERIENCE OF TELECONSULTING CARE FOR HEALTH CARE PROFESSIONALS AND PATIENTS WITH RHEUMATOID ARTHRITIS, IN THE HEALTH EMERGENCY DUE TO COVID-19

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Objectives: Rheumatoid arthritis (RA) is a disease highly vulnerable to COVID-19, a factor that caused an impact on everyday practice and the implementation of telecare assistance. Our goal was to understand the experiences of RA patients and health care professionals (HCP) in the implementation of a non-face-to-face multidisciplinary consultation model in the health emergency caused by COVID-19.

Methods: Qualitative descriptive exploratory study. Semi-structured interviews (telephone or video-based depending on the participant preferences) were carried out that analyzed the experiences of RA patients and HCP who cared for them in a specialized center in Bogotá (Colombia). All interviews were audio-recorded, with prior informed consent of the participants, and were conducted by researchers trained in qualitative designs. Inclusion criteria: Adult RA patients evaluated in the teleconsultation modality on at least two occasions, patients treated in the face-to-face consultation modality on at least two occasions and health professionals who have carried out at least 25 teleconsultations, in the context of the health emergency due to COVID-19. It was analyzed following the Taylor-Bogdan proposal.

Results: 36 interviews were conducted, 29 (80.5%) corresponded to RA patients (69% were attended by teleconsultation and 31%, through face-to-face consultation); and 7 (19.4%) corresponded to HCP. Characteristics of participants are shown in table 1 and 2. Four categories emerged configuring the experience of the subjects (patients and professionals) in a scenario of high vulnerability and uncertainty derived from the COVID-19 pandemic: Factors present in communication, information and communications technology (ICT) management, family support and interaction, and adherence to treatment. In patients, mental health, pain, functional dependence, and quality of life, were the most affected dimensions. Resilience mechanisms such as adaptation and self-care measures emerged to minimize risks from pandemic.

Table 1. Main patient's characteristics.

Sociodemographic data	Variables	N. participants Face to face	N. participants Teleconsulting	N. participants in both groups (%)
Age	45-65	4	13	17 (58,62)
	66 - 75	4	5	9 (31,03)
	> 75	1	2	3(10,34)
Sex	Female	6	16	22 (75,86)
	Male	3	4	7 (24,14)
Number of attentions	<4	3	1	4 (13,79)
	4	2	8	10 (34,48)
	>4	4	11	15 (51,72)
Comorbidities	Si	5	10	15 (51,72)
	No	4	10	14 (48,28)

Conclusion: Clinical and social conditioning factors were identified, which may determine the relevance of teleconsultation. The implementation of teleconsultation should be accompanied by the training of HCP, digital literacy and investment in technological infrastructure to overcome barrier access. It is important to promote assertive communication processes in the professional-patient relationship mediated by ICT.

Table 2. Main health care professionals' characteristics.

Sociodemographic data	Variables	N. participants (%)
Age	25 - 35	3 (42,86)
	36 - 50	4 (57,14)
Sex	Female	4 (57,14)
	Male	3 (42,86)
Profession	General practitioner	3 (42,86)
	Rheumatologist	2 (28,57)
	Internal medicine	1 (14,29)
	Physiatrists	1 (14,29)
	Psychologist	1(14,29)
Laboral experience attending RA patients	< 1 year	1(14,29)
	1 - 4 years	3 (42,86)
	5-10 years	2 (28,57)
	> de 10 years	1(14,29)
Postgraduate education	Si	4 (57,14)
	No	3 (42,86)

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PANLAR2021-ABS-1329

MODIFICATIONS IN SELF-CARE, QUALITY OF LIFE AND THERAPEUTIC ADHERENCE IN PATIENTS WITH RHEUMATOID ARTHRITIS DURING SARS-COV-2 PANDEMIC TREATED BY TELECONSULTATION

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Objectives: Rheumatoid arthritis (RA) is an autoimmune disease characterized by chronic joint inflammation, causing intense pain and stiffness. SARS-CoV-2, as the main pathogen of the current pandemic emergency, increases the clinical vulnerability of the population with RA and led to the implementation of teleconsultation. Our objective was to analyze the changes in the level of therapeutic adherence, quality of life and the capacity for self-care agency during the follow-up period of the group of patients linked to the non-face-to-face multidisciplinary consultation model during the SARS-CoV-2 pandemic.

Methods: A longitudinal analytical cohort observational study in adult RA patients evaluated in a specialized center under a telecare model in Bogotá, Colombia was carried out. Three instruments: EuroQoL-5 Dimensions (EQ 5-D-3 L), Morisky Green Test and The Appraisal of Self-care Agency Scale (ASA-R), to measure quality of life, adherence to treatment and self-care agency respectively, were administered. Data was collected by telephone interview between a three-month period (baseline and third month measurement). Ethical approval was granted. A quantitative comparison between follow up and baselines measurements was done (p-value<0.05 was considered significant)

Results: Of 71 patients included and evaluated in teleconsultation modality, 85.9% were women, with an age range of 90 years (Table). The most prevalent comorbidities were musculoskeletal (14.1%). Regarding the variables analyzed, the quality of life, pain/discomfort, anxiety/depression, and mobility were the variables most affected. In the 3-month follow-up period, no differences in EQ 5-D-3 L score and dimensions were found (p = 0.659). During follow-up, in adherence to treatment, patients did not stop taking medication when they were well (p = 0.029); As well, in the self-care agency, they took measures to guarantee their safety and that of their family (p = 0.000), they changed life habits to improve their health (p = 0.004) and they looked for better ways to take care of themselves (p = 0.026).

Table. Main sociodemographic characteristics

Variable	n= (71)	%
Age		
Mean 63 (33-86)		
Sex		
Female	61	85,9
Marital status		
Married	31	43,6
Single	22	30,9
Separated	4	5,6
Widowed	10	14,1
Common law	4	5,6
Socioeconomic status		
Low	43	60.6
Middle/High	28	39.4
Residence		
Bogotá	50	70,4
Other cities of the country	21	29,6
Occupational status		
Household duties	31	43,7
Manual work	15	20,1
Intellectual/ office work	10	14,1
Other	15	21,1
Educational level		
Primary school	33	46,5
Secondary school	19	26,8
Technician	14	19,7
University	4	5,6
Postgraduate	1	1,4

Conclusion: The teleconsultation implemented in patients with RA during the SARS-CoV-2 pandemic had a high degree of acceptability, found significant changes in the variables of adherence to treatment and self-care agency and without significant changes in quality of life. This study provides new findings in the evaluation of the tele-assisted monitoring model in the context of a health emergency due to COVID-19 in Latin-American RA patients.

PANLAR2021-ABS-1364

FREQUENCY OF CARDIOVASCULAR RISK IN PATIENTS WITH FIBROMYALGIA

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Objectives: To estimate the prevalence of cardiovascular risk factors (CVRF) in adult patients with Fibromyalgia (FM).

Methods: Descriptive, observational and cross-sectional study. Patients of both sexes were included, aged between 30 to 74 years with a diagnosis of FM according to ACR 2010 criteria from a rheumatology center in Argentina between July 2019 to February 2020. Patients with associated autoimmune disease and a history of a previous cardiovascular event were excluded. Cardiovascular risk was evaluated with the Framingham and Reynolds Score. The results of the Framingham Score from the 2018 National Risk Factor Survey were used to compare with the results of our study.

Results: 59 patients were included, 99% (n: 58) were women, the median age in years was 53 (IQR: 47-59). Regarding occupation, 32.2% (n: 19) carried out sedentary activity and 10.17% (n: 6) carried out activity with physical effort. When evaluating CVRF, 38.98% were hypertensive (n: 23), 6% diabetic (n: 4), 42% dyslipidemic (n: 25), 16% smokers (n: 10), 40% obese (n: 24) and 69% were

sedentary (n: 41). 3% (n: 2) had a family history of a coronary event. Cardiovascular risk was evaluated, finding a median 4.88 (3-7.18) points in the Framingham score, with 22% of the evaluated patients presenting moderate risk (n: 37); no patient was at high risk. In the Reynolds Score, the median was 1 (1-2), which corresponds to low risk. When comparing the results of the Framingham with the 2018 national survey of risk factors, it was found that 33.7% of the female population of Argentina had a moderate risk vs 37.2% of the study population, this difference not being statistically significant (p = 0.58). These data are presented in Table 1.

Tabla 1 Características demográficas y FRCV

Características	Resultados
Edad en años, mediana (RIC)	53 (47-59)
Sexo femenino n (%)	58 (99)
Ocupación n (%)	
Empleados	54 (91.5)
Desempleados	5 (8.4)
Factores de riesgo cardiovascular	
Sedentarismo n(%)	41(69)
Dislipidemia n(%)	25 (42)
Obesidad n(%)	24(40.6)
HTA n(%)	23 (38.9)
Tabaquismo n(%)	19 (16.9)
Diabetes n(%)	4 (6.7)
Antecedente familiar de evento coronario n(%)	2 (3)

Conclusion: In this cohort, we did not find patients with a higher cardiovascular risk than the general population in patients with FM either by the Framingham or Reynolds scores.

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PANLAR2021-ABS-1269

ASSESSMENT OF ADMINISTRATIVE BURDEN IN THE PHYSICIANS' DAILY PRACTICE OF A RHEUMATOLOGY SECTION

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Objectives: To determine the frequency of Medical History Summaries (MHS) issued by medical staff of a Rheumatology Section in a period of 6 months and the total time spent on this administrative task, compared to a potential number of medical appointments of predetermined duration, in the same period of time. To describe the reasons for requesting a MHS and the characteristics of the population that requested them.

Methods: All patients who requested a comprehensive MHS (which required an exhaustive review of entire patient's medical record) in the Rheumatology Section between 06/01/2019 and 12/31/2019 were included. Sociodemographic characteristics, health insurance, diagnosis, disease duration, and reason for request were recorded. Multiple requests of the same MHS during this period were reported.

A predetermined duration for each medical appointment was considered of 15 minutes, according to our hospital regulations. The estimated average time employed by medical staff for a comprehensive MHS was 75 minutes.

Results: Of 3159 appointments scheduled in 152 days in our Rheumatology Section, 103 patients requested one or more MHS. One hundred forty-four MHS were performed (0.95 per day). Approximately 18% of the patients requested another MHS in the same period of time. Patients who requested an MHS to get a disability certificate had a significantly shorter duration of disease (96 vs. 144 months, p = 0.012). The time spent to perform all MHS requested was equivalent to 720 potential medical appointments, about 20% of those usually offered.

Most summaries were issued as a requirement for chronic medication coverage, primarily for Rheumatoid Arthritis patients covered by public health care.

Conclusion: The frequency of MHS issued was 0.95/clinic day. The time employed by rheumatologists to prepare MHS for administrative reasons is comparable to a potential increase of more than 20% in medical appointments. A request of a MHS to get a disability certificate was higher in patients with shorter duration of disease.

PANLAR2021-ABS-1276

TREATMENT OF ELDERLY PATIENTS WITH BIOLOGICAL THERAPY AND JAK INHIBITORS

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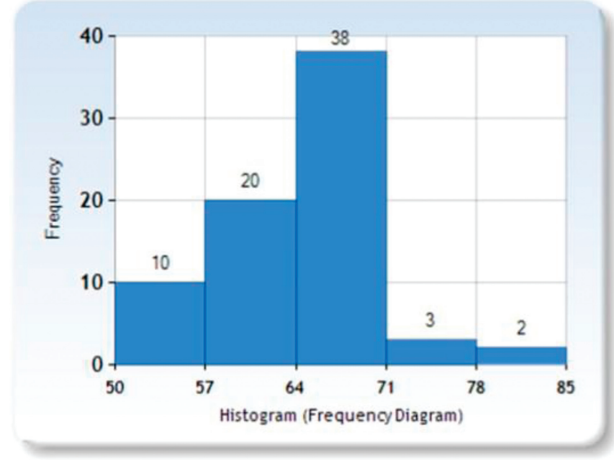
Objectives: Treatment of elderly patients with rheumatic diseases is associated with an increased risk of developing side effects. The aim of the study is to show the prescription pattern in patients older than 65 years in a University hospital.

Methods: Medical records review study 2006-2021 includes 231 patients currently being treated with bDMARDs and tsDMARDs, with a review of previous discontinued therapies.

Results: Out of 231 patients, in 2021, 70 patients (30%) were older than 65 years, average 70 (65-84). Two more patients discontinued therapy due to tuberculosis and brain tumor while one died. Of the 70 patients; 48 had RA, 15 SpA, 7 PSA. The majority of patients were prescribed anti TNFi (27), JAKi (20, 11 as first choice), tocilizumab (11), IL-17 inhibitors (8), and rituximab (7). The most frequent delivery method was subcutaneous therapy (37), then oral (20), intravenous (16). Total duration of all therapies was 73 months (2-174). Patients started biological therapy at age 63 (50-81) 30% at age (57-63), 58% at age (64-70), 3% (71-77). 60% of patients were still on the initial therapy, 27%, the second, while 5% were on their third, fourth and fifth therapy (1RA, 2SpA, 1 PSA). The histogram shows age when the first therapy was started (Figure 1).



Conclusion: Elderly patients receive anti-TNFi and JAKi more often with the majority starting therapy before the age of 71 years. JAKi are a common choice since they became available in 2018.

PANLAR2021-ABS-1262

AUTOBIOGRAPHICAL NARRATIVES AND DISCURSIVE VIOLENCE: RECONSTRUCTIVE ACTS OF PATIENTS WITH LUPUS

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Objectives: Facing a disease means experiencing a condition of emotional and physiological violence, where speech is precisely one of the ways in which it is exercised on the sick person. When aggression is exercised not only by some microorganism, but also manifests itself from the social structures that operate on the patient through language, its detection is difficult. Since it usually normalizes.

This research reviews the patients discourse that revolves around the person with lupus in a discursive-linguistic perspective that observes not only the predominant official discourse but all the discursive (autobiographic and ethnographic) acts that allow the sick person to break the schemes marked by discursive violence in the various structures.

Methods: This research uses three theoretical approaches: the Grounded Theory (TF) methodology of Strauss and Corbin (2014), from which analysis categories are broken down; the Auto-Ethnographic Model and the critical analysis of discourse, from the perspective of Émile Benveniste, Paul Ricoeur and Ruth Wodak and the interpretive autoethnography proposed by Norma K. Denzin. Regarding concepts of violence, the proposals of Paul Farmer, Philippe Bourgois, Nancy Scheper-Hughes and Pierre Bourdieu are used.

The corpus consists of interviews and ethnographic observations recovered from 2013 to date of 100 patients from Mexico, Argentina, Chile, Guatemala, Honduras, United States and Spain.

Results: Some of the research findings show:

1. How the pragmatic, syntactic and semantic dimensions, expressed both in autobiographical discourses are crossed by a violence that is not visible to society.

2. How the archetypes generated by the same people who suffer from the disease are anchors to unite the identity broken after the diagnosis.

3. That their stories are reconstructed on the figure of a diegetic emblem: the one who fights, the one who howls for help, an emblem that allows them to break with pre-established social roles.

Representative images are shown below.

Conclusion: Identity fragmentation is linked to normalized violence, to the same violent alienation that exists in society and where the disease is inscribed. As long as the perpetrators of symbolic violence (leaders of associations and groups, families, health personnel, employers) do not realize that their discursive acts, decisions, instructions and mandates infringe the freedom of action and expression of and members, violence will continue to be daily, every day, common and invisible.

PANLAR2021-ABS-1425

PERSPECTIVES OF PATIENTS WITH RHEUMATIC DISEASES REGARDING VACCINATION FOR COVID 19 IN ARGENTINA

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Introduction: With regard to vaccines against COVID-19, patients with inflammatory, autoimmune or autoinflammatory rheumatic diseases and those who are immunosuppressed, had doubts about their situation regarding vaccination, and people with these conditions did not participate in clinical trials. Also, previous experience with current platforms is generally limited.

Objective: To inform people with rheumatic diseases about vaccination for COVID-19 in Argentina and to measure the impact of the information on people with rheumatic diseases.

Methods: The Argentine Society of Rheumatology (SAR) organized a live session on ReumaQuienSos, a SAR dependent page to provide information to patients. Specialists in rheumatology and infectious disease with extensive experience in patient

care for these specialties participated in this event, providing information and answering questions about vaccination for COVID-19 in people with rheumatic diseases with information available so far, in addition a brief previous survey was conducted during the session and at the end of it.
Results: 1900 people participated in the live session. There were 2400 comments, 997 reactions and it was shared 243 times. Within 7 days of the original post, the post reached 49,600 people. 465 people answered the previous survey and 433 the subsequent one. Before the session, 77% of those surveyed had considered getting vaccinated and at the end of the session this percentage increased to 95%, thus indicating an increase in acceptance of 22%. Prior to the session, only 35% received vaccination advice from their rheumatologist. The increased acceptance of the Sputnik V vaccine was dramatic after the information was provided in the live session. When univariate analysis was performed for age, sex and disease, no association was found with the questions asked in the survey.
Conclusion: The information provided during this activity by SAR and professionals involved had a very important impact on the confidence of people with rheumatic diseases in relation to vaccination for COVID19

PANLAR2021-ABS-1148

RHEUMATOLOGY-OPHTHALMOLOGY COLLABORATIVE MANAGEMENT OF AUTO-IMMUNE OCULAR DISEASES IN A BRAZILIAN TERTIARY REFERRAL CENTRE

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Objectives: To describe the clinical profile of patients diagnosed with auto-immune ocular diseases treated in a collaborative Rheumatology-Ophthalmology clinic in a tertiary referral center and the benefits of the multidisciplinary care.
Methods: Medical records review study.
Results: During the study period, 144 patients were identified and their charts analyzed. The main reason for referral was etiological investigation and evaluation for immunopressive treatment for the patients managed by ophthalmologists. There was additional collaboration for regular eye examination among patients primarily managed by rheumatologists. The majority of the patients were female (n = 83, 57%), with a mean age of 43 years. The most common ocular manifestations were acute anterior uveitis (n = 55, 38%), posterior uveitis (n = 18, 12%) retinal vasculitis (n = 15, 10%). 34% (n = 50) had idiopathic conditions limited to the eye. The most commonly detected systemic disease was Vogt-Koyanagi-Harada Disease (n = 33, 35%) followed by inflammatory spondyloarthropathies (n = 13, 13,8%) and Behçet's Disease (n = 8, 8,5%).
Conclusion: Most patients referred to this Rheumatology-Ophthalmology collaborative team presented acute anterior uveitis and had idiopathic conditions limited to the eye. Vogt-Koyanagi-Harada Syndrome was the most common underlying systemic disease identified.

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PANLAR2021-ABS-1255

IMPACT OF ISOLATION AND ADHERENCE TO TREATMENT OF ARGENTINE PATIENTS WITH RHEUMATIC DISEASES IN PANDEMIC

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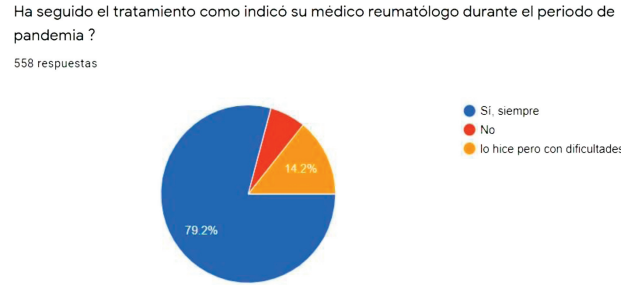
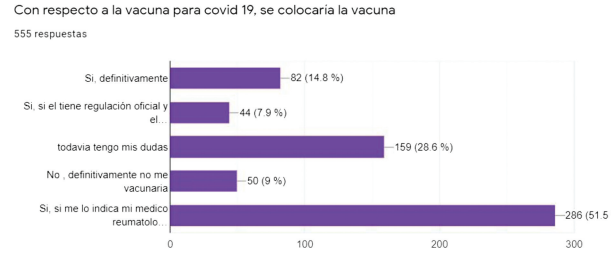
Objectives: To evaluate adherence to treatment and the impact of isolation in patients with rheumatic diseases
Methods: Observational and cross-sectional study, using an electronic survey (Google form®) in participants of the virtual congress of patients in 2020 over 18 years of age. Demographic data, diagnosis and factors associated with the life of the people in this period of restriction were recorded.
Results: 558 patients answered the survey (95.34% women). 494 patients from Argentina (164 were from the province of Buenos Aires). 75 of the survey participants were between 40 and 70 years old. Most of the patients had rheumatoid arthritis 45%, Fibromyalgia 31% and Osteoarthritis 16%. 70% were followed in the private environment. 65% considered themselves within the risk group of suffering from COVID-19 and 23% were unsure of their risk. The majority of the population knew the necessary measures of prevention. 83% were able to connect with their doctor during this period, the most common way was in person and via WhatsApp, only 18% had access through teleconsultation. 79.2% continued with the treatment for their disease, 14.2% had difficulties and 6.4% did not succeed. Of these two groups, lack of access to medication and lack of communication with their doctor was the cause. During this period, 50% were able to do physical activity at home. Of the surveyed population, 35 people (6.4%) had a diagnosis of COVID-19; of these only 6 (15%) required hospitalization, the rest only isolation at home. Anxiety 63% anguish 48% and sadness 42.6% were the emotions that predominated in the vast majority of people with rheumatic diseases. Regarding vaccines, 51% thought that they would be vaccinated if recommended by their rheumatologist and 28 .6% had doubts. Only 9% would not be vaccinated. These data are depincted in Figures 1 and 2.





Conclusion: From this survey, we obtained information on how the pandemic impacted people's daily lives during the restriction. Although the vast majority were able to comply with their treatment and indications, a percentage could not comply with their treatment and did not have access to their rheumatologist. There is a great emotional impact from the restrictions on this group of people. Additionally, patients expressed trust in their rheumatologist, and the recommendation for COVID-19 vaccination.

PANLAR2021-ABS-1298

PROFILE AND TREATMENT OF PATIENTS WITH VOGT-KOYANAGI-HARADA SYNDROME IN A COLLABORATIVE RHEUMATOLOGY/OPHTHALMOLOGY CLINIC IN A TERTIARY REFERRAL CENTER

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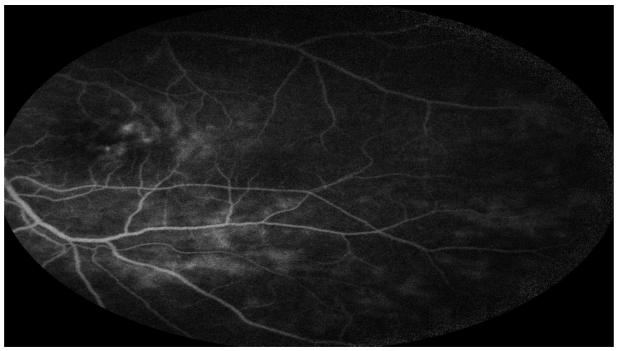
Objectives: To examine profile of patients diagnosed with Vogt-Koyanagi-Harada Syndrome (VKHS) in a joint outpatient clinic for rheumatology and ophthalmology at a tertiary hospital, as well as the proposed treatment and its effectiveness.
Methods: This is a medical records review cross-sectional observational study, in which 147 charts were analyzed. Of these, 33 patients had a diagnosis of

VKHS. After review, 4 patients were removed from the study (two of whom had no confirmed diagnosis of VKHS, one due to lack of data and the other due to the onset of the disease after eye surgery).

They were grouped according to the form of presentation of the disease in probable, complete and incomplete. The first group was defined by ocular involvement, the second by eye disease associated with auditory / neurological or cutaneous alterations and the third by all the manifestations described previously.

Results: 37.93% patients (11) had probable VKHS, 51.72% (15) the incomplete form and 10.35% (3) the complete form of the disease. 82.76% (24) of the patients used prednisone, 55.17% (16) methotrexate, 55.17% (16) azathioprine, 34.48% (10) used methylprednisolone, another 17.24% (5) cyclosporine, 13.79% (4) cyclophosphamide and 3.45% (1) sulfasalazine. 3.45% (1) of the patients were using immunobiological therapy (infliximab).

89.66% (26) patients were in remission and 10.34% (3) were in disease activity. See figure 1.



Conclusion: The study concluded that most patients have the incomplete form and the complete form is rare. VKHS is an inflammatory eye disease that requires immunosuppressive therapy. Corticosteroids are used frequently, synthetic drugs in some cases and immunobiologicals in exceptional cases. In this context, a multidisciplinary approach could be better for both patients and physicians and improve treatment.

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PANLAR2021-ABS-1321

COHORT OF PATIENTS OF THE EPS (ENTITY PROVIDING HEALTH SERVICES) SANITAS WITH RHEUMATIC DISEASES AND COVID19

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Objectives: It is unclear whether autoimmune diseases increased the risk, worsened the prognosis, or the outcome of patients with SARS-CoV-2 infection.

Methods: Observational, cross-sectional study, data collected from a historical cohort of patients with rheumatic diseases between the period of March 2020 and August 2020.

Results: 192 patients were included, the majority were women (Women: 68.8%) the most common rheumatic disease was rheumatoid arthritis, followed by Sjögren's syndrome (Table 1). The most frequent associated comorbidity was arterial hypertension (27%), followed by renal disease (8.1%) and diabetes mellitus (8%). The most frequent symptom was headache (92.2%), followed by cough (58.5%), anosmia (44.9%), odynophagia (44.7%) and fever (44.5%). There was some alteration in the measurement of D-dimer, Ferritin, LDH, fibrinogen, troponin, leukocyte count, lymphocytes, platelets, acute phase reactants, transaminases, and creatinine. 36 (18.8%) patients required hospitalization, 10 in the ICU with mechanical ventilatory support. Most of the patients were undergoing treatment with conventional disease-modifying drugs (DMARDcs) (68.8%), 15(8.8%) were undergoing treatment with biological therapy. The main form of contagion suspected was contact with a family member or coworker. Of the total number of patients, 15 (7.8%) died associated with some complication from COVID19

Table 1. Rheumatic diseases

Rheumatic pathologies	%
Rheumatoid arthritis	34,9
Sjogren's Syndrom	19,8
Psoriasis	17,2
Systemic lupus erythematosus	6,3
Other Vasculitis (Other than GPA)	3,6
Ulcerative colitis	3,1
Gout	3,1
Undifferentiated connective tissue	2,6
Axial spondyloarthritis	2,1
Psoriasic arthritis	1,6
Diffuse systemic sclerosis	1,6
Localized systemic sclerosis	1,0
Ruphus	1,0
Antiphospholipid syndrome	1,0
Granulomatosis with Polyangiitis (GPA)	0,5
Polymyalgia rheumatica	0,5

Conclusion: We obtained similar results to international cohorts(1), highlighting important data such as the predominance of rheumatoid arthritis vs other rheumatic disease, the greater use of DMARDcs compared to other therapies and mortality. Likewise, studies should continue to evaluate the behavior of the SARS-COV-2 infection in patients with rheumatic diseases, to understand this infection better.

Reference:

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PANLAR2021-ABS-1291

TUBERCULOSIS AS A FATAL OUTCOME IN PATIENTS WITH AUTOIMMUNE DISEASES, AN AUTOPSY SERIES

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Objectives: To report an autopsy cases series in patients with an autoimmune disease (AD) whose deaths were caused by tuberculosis (TB) in a tertiary care hospital of the Colombian north-east.

Methods: A medical records review descriptive study of the database from the Pathology Department at UIS in Bucaramanga, Colombia. A total of 3390 autopsies were performed between January 2009 and December 2019 in patients whose death occurred at Hospital Universitario de Santander. A total of 1713 autopsy reports were analyzed, of which 10 corresponded to patients with AD whose deaths were caused by Mycobacterium tuberculosis.

Results: A total of 10 patients with a premortem diagnosis of AD were included who additionally had autopsy findings consistent with a fatal infection by Mycobacterium tuberculosis. Seven cases (70%) were male and 3 were female (30%). The mean age was 49.5 years old with a range from 32 to 69 years old. The most common AD were rheumatoid arthritis (40%), systemic lupus erythematosus (20%), and dermatomyositis (20%). In 8 cases the autopsy findings were extrapulmonary TB, of which half were disseminated and only 2 cases were exclusively pulmonary TB. All patients were receiving immunosuppressive therapy. The most commonly used agents were prednisone (100%), methotrexate (30%), and adalimumab (20%). A detailed description of the reported cases is displayed in table 1. The pathology is depicted in Figures 1-3.

Table 1. Description of the cases.

Case	Sex	Age	AD	IST	Autopsy findings
1	Male	32	RA	PRED, MTX, ADA	Disseminated tuberculosis with involvement of the brain and meninges, lungs and kidneys. Figure 1.
2	Female	42	SLE	PRED	Disseminated tuberculosis with involvement of lungs, pleura, liver, intestine, lymph nodes and kidneys. Figure 2.
3	Female	56	RA	PRED, ADA	Miliary tuberculosis with involvement of meninges, pituitary gland, lungs, pleura, lymph nodes, liver, spleen, kidneys and bladder. Figure 3.
4	Male	45	RA	PRED	Meningeal tuberculosis.
5	Male	60	RA	PRED, MTX	Pulmonary tuberculosis and tuberculous endocarditis.
6	Male	57	SLE	PRED	Pulmonary and meningeal tuberculosis.
7	Male	37	DMPM	PRED	Disseminated tuberculosis with involvement of the central nervous system, lungs, pleura and kidneys.
8	Male	43	DMPM	PRED, MTX	Pulmonary tuberculosis.
9	Male	53	PV	PRED, AZA	Pulmonary tuberculosis.
10	Female	69	SSc	PRED	Pulmonary and meningeal tuberculosis.

AD= Autoimmune Disease; RA= Rheumatoid arthritis; SLE= Systemic lupus erythematosus; DMPM= Dermatopolymyositis; PV= Pemphigus vulgaris; SSc= Systemic sclerosis; IST= Immunosuppressive therapy; PRED= Prednisone; MTX= Methotrexate; ADA= Adalimumab; CYC= Cyclophosphamide; AZA= Azathioprine.

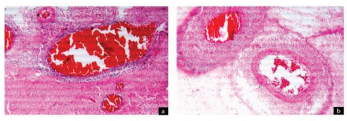

Figure 1. Meningeal tuberculosis. Thickening and opacification of meninges at the base of the brain, with a mononuclear inflammatory infiltrate and lymphocyte predominance, extended to the wall of the vessel (a)(b).

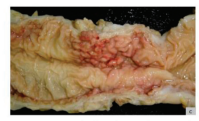

Figure 2. Intestinal tuberculosis in the terminal ileum (c).

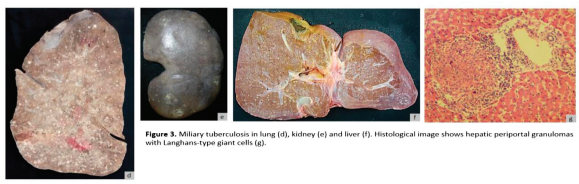

Figure 3. Miliary tuberculosis in lung (d), kidney (e) and liver (f). Histological image shows hepatic periportal granulomas with Langhans-type giant cells (g).

Conclusion: TB remains one of the leading causes of death worldwide and patients with AD have an increased risk of TB as compared to the general population. In patients with autoimmune conditions, TB most commonly presents in its extrapulmonary form likely from the reactivation of latent infection, hence we stress the importance of screening for the most prevalent infections before the initiation of immunosuppressive therapy. The diagnosis and early treatment of latent TB infection are vital to preventing the progression of the disease and avoid fatal outcomes related to this infection.

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PANLAR2021-ABS-1300

DIFFERENTIAL DIAGNOSIS OF ORBITAL INFLAMMATION IN A TERTIARY REFERRAL HOSPITAL – FOCUS ON INFLAMMATORY DISEASES

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Objectives: To verify the frequency of inflammatory diseases leading to orbital disease requiring hospitalization.

Methods: A medical records review study of patients hospitalized from January 2011 to January 2021 due to orbital signs and symptoms in a tertiary referral hospital.

Results: We assessed 258 patients for eligibility. Exclusion criteria were met by 217 patients (109 infections, 18 neoplasms, 10 endocrine causes and 80 other non-inflammatory causes). Idiopathic or autoimmune diseases accounted for 41 cases, which were studied in detail. The majority were women (75%) with median age of 42 (29-59) years and unilateral involvement in 70%. Associated findings were: maxillary sinusitis (30%), headache (22%), pulmonary involvement (7%), saddle nose (5%) and retroperitoneal fibrosis (5%). The ocular findings were: proptosis (63%), hyperemia (24%), ophthalmoplegia (22%), low visual acuity (20%), pain (13%), diplopia (12%) and tearing (7%). Computed tomography showed expansive (40%) or infiltrative (37%) lesions, with extraconal (15%) or intraconal involvement (12%) and myositis (30%). The biopsy defined the diagnosis in 24 patients, showing infiltration by mononuclear cells (80%), plasmacytes (37%) and histiocytes (24%); vasculitis (20%) and granuloma (10%); fibrosis (24%); and IgG4 plasmacytes (15%), with IgG4/IgG > 0.4 in 2/3 of them. Each patient had only one diagnosis, distributed as: idiopathic inflammation in 16, ANCA-associated vasculitis in 14, IgG4-related disease in 6, ocular myositis in 3, sarcoidosis in 1 and amyloidosis in 1. The most frequent treatment was oral glucocorticoid (e.g., prednisolone 1 mg/kg/d), with satisfactory response for 21 patients. For 20 patients, it was necessary to add immunosuppressive drugs: methotrexate (14), cyclophosphamide (10), azathioprine (4) and rituximab (2). Figure 1.

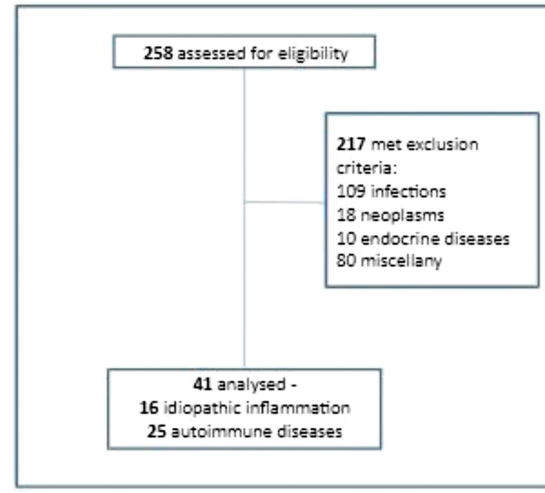

Figure 1. Study Flow Diagram

Conclusion: Inflammatory orbital disease can be a manifestation of systemic diseases and contribute to general low quality of life. Biopsy is fundamental to differential diagnosis and the treatment is based on immunosuppressive drugs.

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PANLAR2021-ABS-1338

ASSOCIATION OF V D R AND V D B P GENE POLYMORPHISM AND VITAMIN D CONCENTRATION

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Objectives: To examine the association between Vitamin D deficiency and insufficiency with VDR gene polymorphisms.

Methods: Association study of the polymorphisms of the VDR genes (SNPs rs731236, rs7975232, rs2228570) and VDBP (rs4588) of the VDR and VDBP genes with the concentrations of vitamin D. This study included patients with IMIDs (ie Systemic Lupus Erythematosus (SLE), Scleroderma (ES), Rheumatoid Arthritis (RA), and Cutaneous Psoriasis (PSO)) and normal controls (CTRL) from the same population. The data of the included patients were provided by the Department of Rheumatology, and the associated samples by the BIOBANCO IMID PY. In turn, in collaboration with the GRR-VHIR, the same genetic analysis was performed in the Spanish population. The PureLink® Genomic DNA kit was used for DNA extraction, in accordance with the protocol established in the IMID-PY BIOBANK. For DNA extraction, the QIAamp Blood DNA Kit column purification kit (QIAGEN, Germany) was used. Genotyping was performed using technology based on Taqman real-time PCR (Life Technologies, USA). (applied biosystems by Thermo Fisher Scientific, Waltham, MA USA). Serum levels of 25-OH Vit D were determined by chemiluminescence (Abbott). Vitamin D deficiency was considered at values lower than 20 ng / ml, while values between 21-29 ng / ml were considered as insufficiency.

Gráfico Concentraciones de Vitamina D en las diferentes cohortes.

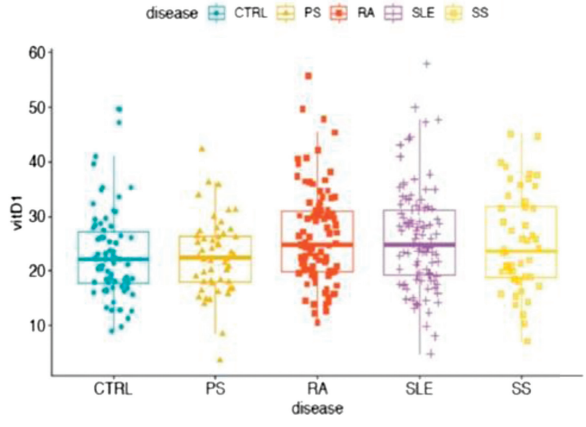

Table 1 Association between the different SNPs of each disease with the concentration of vit D.

SNP	IMIDs	Beta	P. value
rs7311236	SLE	-0.0947208	0.9427833
rs7311236	RA	-0.7420364	0.5438728
rs7311236	SS	0.0134286	0.9944871
rs7311236	CTRL	-2.5355889	0.0575755
rs7311236	PS	-1.7848335	0.2131749
rs2228570	SLE	-0.4227593	0.7424207
rs2228570	RA	0.9596972	0.4906845
rs2228570	SS	3.1778493	0.0575921
rs2228570	CTRL	-0.5597443	0.7207045
rs2228570	PS	2.8456822	0.0602956
rs7975232	SLE	08947877	0.4515582
rs7975232	RA	2.3942867	0.0430506
rs7975232	SS	3.9395908	0.0494579
rs7975232	CTRL	2.2485467	0.0938720
rs7975232	PS	0.7977674	0.4936743
rs4588	SLE	-0.2553024	0.8661663
rs4588	RA	1.7961961	0.2395146
rs4588	SS	1.8310241	0.4471149
rs4588	CTRL	0.0826534	0.9570994
rs4588	PS	-1.3114702	0.3902583

Results: In this analysis, samples of 75 normal controls and 294 patients were performed. The mean value of vitamin D concentrations was higher in the samples of patients with RA (p: 0.033) and SLE (p: 0.05) as observed in Figure 1. No correlation was found for age and sex

There is a trend of association in the CTRL for rs731236, and in PS and ES for rs2228570 as shown in Table 1. For rs7975232 we see significant eQTL for RA (p: 0.043) and ES (p: 0.049) with coefficient of positive regression.

Conclusion: There is an association between the C allele of rs7975232 with higher concentrations of vitamin D in patients with Rheumatoid Arthritis and Scleroderma.

PANLAR2021-ABS-1380

CONCORDANCE BETWEEN THE QUANTIFERON-TB GOLD IN-TUBE AND TUBERCULIN TEST FOR THE DIAGNOSIS OF LATENT TUBERCULOSIS INFECTION IN PATIENTS WITH RHEUMATIC DISEASES

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Objectives: Patients with rheumatic diseases (RD) are at high risk of latent tuberculosis infection (LTBI) reactivation. Our medical goal is to detect and treat LTBI before initiation of treatment, especially with biological therapy, in order to decrease the reactivation risk. Diagnosis is carried out by the tuberculin skin test (TST) or interferon-gamma release assays (IGRAs), IGRAs is seen as most specific and sensitive. Our aim was to analyze the concordance between QuantiFERON®-TB Gold (QTF) and TST for the diagnosis of LTBI in patients with RD.

Methods: A medical records observational study was conducted including patients diagnosed with RD screened for LTBI with TST and QTF (2014-2018). Demographical and clinical variables at screening and at follow-up were collected. The concordance between both tests was estimated as categorical variables using Cohen´s Kappa test, considering "poor" if it was ≤ 0,20; "low" if <0,20 k ≤ 0,40, "moderate" if 0,40 < k ≤ 0,60, "substantial" if 0,60 < k ≤ 0,80 "optimal" if k > 0,80.

Results: 167 patients were included (57% women), mean age of 52 ± 16y. 42% had systemic autoimmune disease, 22% spondyloarthropaties and 36% other RD diagnosis. 2 had history of past active TB. At the time of screening, 46.11% were treated with glucocorticoids (GC).

LTBI was diagnosed in 35 patients: 15 had both QTF and TST positive, 16 only QTF and 4 only TST. 12/31 QTF and 3/19 TST positive patients were treated with GC at screening.

After screening 62 patients received biological therapy, 4 of them had both tests positive, 6 only QTF and 2 only TST positive. 11 received LTBI treatment according to hospital protocol (isoniazid at least for 6 months). 10 completed treatment, 1 did not because of intolerance. 1 patient with only TST positive was considered a false positive and did not receive treatment. During follow up no TB reactivation has been reported. 23 patients with LBTI received

treatment other than biological therapy during follow up, of them 8 received LBTI treatment. There was no TB reactivation during follow up.

The Kappa concordance between QTF and TST was estimated: moderate in the whole sample, poor in patients treated with GC at screening, and substantial when the patients treated with GC at screening were excluded. Results are shown in Table 1.

	TOTAL SAMPLE	PATIENTS WITH GC AT LTBI SCREENING	PATIENTS WITHOUT GC AT LTBI SCREENING
Number of coincidences (p1)	147 (88.02%)	64 (83.12%)	83 (92.22%)
Number of randomly expected coincidences (p_e)	124.1 (74.28%)	62.9 (81.73%)	61.8 (68.62%)
Kappa = p1- p_e /1- p_e	**0.534**	**0.117**	**0.752**
IC 95%	(0.358-0.710)	(-0.154-0.305)	(0.579-0.926)

Table 1. Kappa concordance between QTF and TST.

Conclusion: QTF seems to be the most appropriate LTBI screening test in patients with RD treated with GC. Screening and treatment of LTBI in patients with RD treated with or without biological therapy was effective in reducing TB reactivation.

PANLAR2021-ABS-1154

HIPPOCAMPAL SUBFIELDS VOLUME REDUCTION IN PATIENTS WITH SYSTEMIC SCLEROSIS: A LONGITUDINAL MAGNETIC RESONANCE IMAGING (MRI) VOLUMETRIC STUDY

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Objectives: The aim of this study was to evaluate the hippocampal subfields volumes reduction in patients with systemic sclerosis (SSc) using magnetic resonance imaging (MRI) to determine if clinical, laboratory and treatment features are associated with its occurrences.

Methods: We included 37 SSc patients (mean age of 53.46 years) and 37 healthy controls - HC (mean age of 48.41 years). SSc patients were further assessed for clinical and laboratory SSc manifestations, disease activity and severity activity. After 48 months MRI acquisition were repeated.

Results: We observed a significant reduction in volume of the hippocampus subfields in SSc patients when compared to controls: Total hippocampi (SSc: mean volume = 4.78 cm^3; SD = 0.38; HC: mean volume = 5.01 cm^3; SD = 0.38; p = 0.033); Left hippocampi (SSc: mean volume = 2.40 cm^3; SD = 0.18; HC: mean volume = 2.56 cm^3; SD = 0.19; p = 0.002); Right hippocampus (SSc: mean volume = 2.33 cm^3; SD = 0.19; HC: mean volume = 2.48 cm^3; SD = 0.19; p = 0.033). Reduction in volume of the total hippocampi was associated with Raynaud's phenomenon (p = 0.006) and current use of losartan (p = 0.016). A longitudinal study showed a reduction in volume of the hippocampi subfields when compared to patient's baseline: Total hippocampus (mean initial volume = 4.78 cm^3; mean follow-up volume = 4.50 cm^3, p = 0.027); right hippocampus (mean initial volume = 2.40 cm^3; mean follow-up volume = 2.26 cm^3, p = 0.045); left hippocampus (mean initial volume = 2.33 cm^3; mean follow-up volume = 2.21 cm^3, p = 0.046); CA1 total (mean initial volume = 1.59 cm^3; mean follow-up volume = 1.58 cm^3, p < 0.0001); CA1 right (mean initial volume = 0.87 cm^3; mean follow-up volume = 0.81 cm^3, p < 0.0001); CA4-DG right (mean initial volume = 0.63 cm^3; mean follow-up volume = 0.59 cm^3, p = 0.005); CA4-DG left (mean initial volume = 0.62 cm^3; mean follow-up volume = 0.55 cm^3, p = 0.018) and subiculum total (mean initial volume = 0.53 cm^3; mean follow-up volume = 0.51 cm^3, p = 0.014). Reduction in volume of the total hippocampus was associated with presence of cognitive impairment (p = 0.034) and current use of prednisone (p = 0.008).

Conclusion: This longitudinal study showed a reduction in the hippocampus subfields volumes when compared to patient's baseline; these changes were associated with memory difficulties and the current use of prednisone.

PANLAR2021-ABS-1440

RISK FACTORS AND OUTCOMES OF AUTOIMMUNE/INFLAMMATORY DISEASES DURING COVID-19 INFECTION: A COMPARATIVE STUDY

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Objectives: To determine the risk factors, impact and outcomes of COVID-19 in autoimmune / inflammatory diseases (AID).

Methods: Case (patients with AID) and controls (patients without AID) study. Both groups with SARS-CoV-2 by PCR. Clinical, biochemical, treatment and outcome characteristics were determined. Spearman correlation, X^2 and multivariate analysis were performed.

Results: AID, 90 (49.49 ± 14.2 years) vs controls, 90 (52.58 ± 13.5 years). AID: systemic lupus erythematosus (SLE) (n = 20, 22.2%), systemic sclerosis (n = 16, 17.8%), rheumatoid arthritis (n = 14, 15.6%), primary antiphospholipid syndrome (n = 12, 13.3%), autoimmune encephalitis (AIE) (n = 6, 6.7%), granulomatosis with polyangiitis (GPA) (n = 5, 5.6%) and multiple sclerosis (n = 3, 3.3%) were the most frequent. Treatment: anticoagulant 73.3%, glucocorticoid 53.3% and antimalarials 35.6%. The AID patients had less invasive mechanical ventilation (IMV) (p = 0.004), lower death (p = 0.006) and lower discharge with O_2 (p = 0.001) (Table 1). AID: creatinine correlate positively with days with IMV (rho = 539, p 0.024). In AID, AIE and O_2 saturation ≤ 88% provided risk for IMV (OR 88.42, CI 3.9-196.7, p = 0.005 and OR 10.05, CI 1.2-83.7, p = 0.033, respectively) while antimalarials were protective for IMV (OR

Table 1. Clinical, biochemical and complications characteristics of patients with AID (n: 90) and controls (n: 90) with COVID-19.

Variables	AID, n (%)	Controls, n (%)	p*
Age (years) π	49.75 (±14.4)	52.53 ± (13.3)	0.184****
Female gender	67 (74.4)	68 (75.6)	0.863
Obesity	**27 (30.0)**	**83 (92.2)**	**<0.0001****
Arterial hypertension	32 (35.6)	38 (42.2)	0.745
Diabetes mellitus	19 (21.1)	25 (27.8)	0.298
Ischemic heart disease	**6 (6.7)**	**0 (0)**	**0.014****
Neoplasms	**6 (6.7)**	**19 (21.1)**	**0.005**
Hypothyroidism	**9 (10.0)**	**1 (1.1)**	**0.009****
Initial O_2 saturation (%) μ	88.0 (78-92)	86 (75-92)	0.730***
CO-RADS Ω			
1	**5 (13.2)**	**0 (0)**	**0.005**
2	**3 (7.9)**	**2 (3.7)**	
3	**5 (13.2)**	**11 (20.4)**	
4	**7 (18.4)**	**8 (14.8)**	
5	**14 (36.8)**	**33 (61.1)**	
6	**4 (10.5)**	**0 (0)**	
CT severity score Ω			
Mild	**20 (52.6)**	**21 (38.8)**	**0.025**
Moderate	**17 (44.7)**	**24 (44.4)**	
Severe	**1 (2.6)**	**9 (16.6)**	
Leukocytes (cels/mm3) μ	**7000 (4450-10850)**	**8700 (6075-12450)**	**0.035*****
Lymphocytes (cels/mm3) μ	**2055 (1037-4175)**	**810 (500-1251)**	**<0.0001*****
Platelets (K/uL) μ	**218.00 (142.9-394.1)**	**229.50 (138.3-293.5)**	**<0.0001*****
Glucose (mg/dL) μ	**104.0 (80.5-130.5)**	**120.00 (95.0-189.5)**	**0.023*****
Creatinine (mg/dL) μ	0.74 (0.6-1.0)	0.86 (0.6-1.38)	0.188***
LDH (U/L) μ	**421.50 (285.5-568.0)**	**640.00 (450.0-953.0)**	**<0.0001*****
ESR (mm/h) μ	32.00 (24.0-39.0)	35.00 (20.1-41.9)	0.930***
CRP (mg/L) μ	**44.95 (16.9-101.7)**	**120.00 (38.5-173.5)**	**0.001*****
Fibrinogen (g/L) μ	430.00 (355.5-498.0)	407.00 (350.0-600.0)	0.656***
D-dimer (ng/mL)	595.0 (270.0-2777.5)	715.0 (410.0-2165.0)	0.554***
TREATMENT			
Antimalarial	32 (35.6)	24 (26.7)	0.198
Glucocorticoid	**48 (53.3)**	**13 (14.4)**	**<0.0001**
Anticoagulant	**66 (73.3)**	**43 (47.8)**	**<0.0001**
OUTCOMES			
LoS μ	7.00 (0.0-10.0)	5.0 (1.0-12.0)	0.693***
Days with IMV μ	6.0 (2.0-13.0)	3.0 (1.5-7.5)	0.274***
IMV	**16 (17.8)**	**33 (36.7)**	**0.004**
Death	**26 (28.9)**	**44 (48.9)**	**0.006**
Discharge with O_2	**6 (6.7)**	**14 (15.6)**	**0.001**

AID: autoimmune/inflammatory diseases, CO-RADS: COVID-19 Reporting and Data System, CT: computed tomography, LDH: lactic dehydrogenase, ESR: erythrocyte sedimentation rate, CRP: C reactive protein, LoS: length of stay, IMV: invasive mechanical ventilation.
π Mean ± standard deviation.
μ Median and IQR.
Ω AID n = 38, controls n = 54
* Chi square test.
** Fisher's exact test.
*** Mann-Whitney U test.
**** T student for independent samples.

0.08, CI 0.0-0.9, p = 0.042). Regarding death in AID, oxygen saturation ≤ 88% and CO-RADS ≥4 were risk factors (OR 5.12, CI 1.5-16.4, p = 0.006 and OR 8.84, CI 1.2-64.0, p = 0.031, respectively) and anticoagulant use was protective (OR 0.26, CI 0.0-0.8, p = 0.019) (Table 2).

Conclusion: Our study suggests that patients with AID have a better outcome than the control group. Multiple factors are involved in this outcome such as surveillance, chronic use of antimalarials, steroid and anticoagulation. We propose that at the molecular level high levels of IFN may be a protective factor for complications from SARS-CoV-2 infection. New longitudinal and molecular level studies in patients with mild/moderate, severe and critical COVID-19 will be necessary to know the impact of COVID-19 in AID.

Table 2. Factors associated with invasive mechanical ventilation and death in AID with COVID-19 (n: 90).

INVASIVE MECHANICAL VENTILATION					
Variables	**With IMV, 16 (%)**	**Without IMV, 74 (%)**	**Univariate analysis**	**Multivariate analysis**	
			p π	**OR (95% CI)**	**p***
SLE	3 (18.8)	18 (24.3)	0.455	-	-
SSc	0 (0.0)	16 (21.6)	0.040**	1.30 (0.4-8.7)	0.998
RA	5 (31.3)	10 (13.5)	0.084	-	-
PAPS	3 (18.8)	9 (12.2)	0.361	-	-
AIE	**4 (25.0)**	**2 (2.7)**	**0.008****	**88.42 (3.9-196.7)**	**0.005****
SaO_2 ≤ 88%	**12 (80.0)**	**36 (48.6)**	**0.024****	**10.05 (1.2-83.7)**	**0.033****
CO-RADS ≥4Ω	5 (71.4)	20 (64.5)	0.549	-	-
Antimalarial	**2 (12.5)**	**30 (40.5)**	**0.028****	**0.08 (0.0-0.9)**	**0.042****
Glucocorticoid	8 (50.0)	40 (54.1)	0.768 μ	-	-
Anticoagulant	10 (62.5)	56 (75.7)	0.280 μ	-	-
DEATH					
Variables	**Death, 26 (%)**	**Survivor, 64 (%)**	**Univariate analysis**	**Multivariate analysis**	
			p π	**OR (95% CI)**	**p***
SLE	4 (15.4)	17 (26.6)	0.196	-	-
SSc	1 (3.8)	15 (23.4)	0.022**	0.11 (0.0-1.0)	0.050
RA	6 (23.1)	8 (14.1)	0.298 μ	-	-
PAPS	6 (23.1)	6 (9.4)	0.083	-	-
AIE	3 (11.5)	3 (4.7)	0.230	-	-
SaO_2 ≤ 88%	**20 (80.0)**	**28 (43.8)**	**0.002 μ****	**5.12 (1.5-16.4)**	**0.006****
CO-RADS ≥4†	**14 (87.5)**	**11 (50.0)**	**0.018****	**8.84 (1.2-64.0)**	**0.031****
Antimalarial	6 (23.1)	26 (40.6)	0.115 μ	-	-
Glucocorticoid	13 (50.0)	35 (54.7)	0.686 μ	-	-
Anticoagulant	**13 (50.0)**	**50 (78.1)**	**0.008 μ**	**0.26 (0.0-0.8)**	**0.019****

AID: autoimmune/inflammatory diseases, IMV: invasive mechanical ventilation, SLE: systemic erythematosus lupus, SSc: systemic sclerosis, RA: rheumatoid arthritis, PAPS: primary antiphospholipid síndrome, AIE: autoimmune encephalitis, CO-RADS: COVID-19 Reporting and Data System.
No se encontró asociación alguna con respecto a las variables demográficas, comorbilidades y de laboratorio con ventilación mecánica invasiva o muerte en pacientes con EA/I.
Ω with IMV = 7, without IMV = 31.
† death = 16, survivor = 22.
π Fisher's exact test.
μ Chi square test.
* Binary logistic regression.
** Statistically significant.

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PANLAR2021-ABS-1143

FREQUENCY AND SEVERITY OF SYMPTOMS IN PATIENTS WITH FIBROMYALGIA AND MIGRAINE

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Objectives: To estimate the frequency of migraine in patients with FM. To describe and compare clinical characteristics, sociodemographic severity of FM symptoms, according to the presence or absence of migraine. To evaluate the presence and severity of anxiety and depression in these patients.

Methods: Observational, cross-sectional analytical study. Patients older than 18 years, of both genders with a diagnosis of FM according to the 2010 ACR criteria were included. Patients with other concomitant autoimmune diseases were excluded. IHS (international headache society) criteria was used for diagnosis of migraine, FIQ (fibromyalgia Impact Questionnaire) was used to assess severity of FM symptoms, GAD7 (General Anxiety Disorder) and PHQ9 (Patient Health Questionnaire) were used to assess anxiety and depression respectively.

Results: 59 patients were included, 99% (n: 58) were women, with a median age of 53 years (47-59). 40.68% of the patients had migraine (n = 24). In patients with migraine, median FIQ score was 70.35 (63.16-78.76) vs 53.91 (37.9366.05) in the group without migraine, this difference being statistically significant (p < 0.01). The median age was 55 years (52-61) and 50.5 (46-55) in patients without and with migraine respectively (p < 0.01). Regarding anxiety and depression, the median score of GAD7 was 12 (7-15) and 17.5 (14.5-20) in patients without and with migraine respectively (p < 0.01); and PHQ9 showed a median of 11 (5-19) and 18.5 (13.5-21) correspondingly (p < 0.01). In multivariate analysis, a higher FIQ score and presence of anxiety were significantly and independently associated with migraine. (Coefficient β: 0.008. CI 95% (0.0007-0.01); Coefficient β: 0.035. CI 95% (0.009-0.06), respectively.

Tabla 1. Características sociodemográficas

	Resultados (N=59)
Edad en años, mediana (RIC)	53 (47-59)
Ocupación n (%)	
Empleados	54 (91.5)
Desempleados	5 (8,4)
Comorbilidades n (%)	
Dislipemia	25 (42.3)
Obesidad	24 (40.6)
HTA	23 (38.9)
Tabaquismo	10 (16.9)
Diabéticos	4 (6.7)

Tabla 2. Características clínicas

	Migraña	**Sin Migraña**	**Valor de p**
Edad en años mediana (RIC)	50.5 (46-55)	55 (52-61)	<0.01
FIQ mediana (RIC)	70.35 (63.16-78.76)	53.91 (37.93-66.05)	<0.01
PHQ 9 mediana (RIC)	18.5 (13.5-21)	11 (5-19)	<0.01
GAD 7 mediana (RIC)	17.5 (14.5-20)	12 (7-15)	<0.01

Conclusion: This study suggests that migraine is frequent in patients with FM, and that symptoms severity and anxiety could be more pronounced in this group of patients. These results should be taken into account, to optimize the management of patients with FM.

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PANLAR2021-ABS-1311

STUDY OF V D R AND V D B P GENE POLYMORPHISM AND VITAMIN D CONCENTRATION

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Objectives: To identify the genetic association between the polymorphisms of the VDR and VDBP genes and the the susceptibility to develop IMID diseases in a Paraguayan population

Methods: Study of the association of polymorphisms of the VDR and VDBP genes with the susceptibility to suffer from IMID in the Paraguayan population. A total of 399 patients with IMIDs (ie Systemic Lupus Erythematosus (SLE), Scleroderma (ES), Rheumatoid Arthritis (RA), and Cutaneous Psoriasis (PSO) and 100 normal controls (CO) from the same population) were included in this study. The data of the included patients were provided by the Department of Rheumatology, and the samples were from the associated BIOBANCO IMID PY. In turn, in collaboration with the GRR-VHIR, the same genetic analysis was carried out in the Spanish population. The PureLink® Genomic DNA kit Genotyping was performed using technology based on Taqman real-time PCR (Life Technologies, USA). Statistical analysis was performed with the statistical language software Rv3.0.1 (www.R-project.org) in addition to the allelic association test using the $\chi 2$ test. The Spanish cohort was previously genotyped using the Quad610 full genome genotyping platform from Illumina.

Results: 399 individuals, 100 controls and 299 patients (99 RA, 100 SLE, 50 ES, and 50 PSO) were included. 76% were female and 24% male, with a mean age value of 43.7 ± 14. 4 SNPs genotyped were rs731236, rs7975232, rs2228570, rs4588. The linkage disequilibrium was relatively low ($r2 < 0.5$), so they could be analyzed as independent polymorphisms. Table 1 shows the allelic test of the 4 SNPs differentiated by disease in relation to the control group, where a nominal association is evidenced for 2 VDR SNPs: rs731236 (in SLE and PS), and rs7975232 (in ES and PS). A significant association was found with VDR, rs731236 (allelic ≤0.03, OR: 0.64 CI: 0.42-0.97) for SLE, rs731236 (allelic 0.049 OR 0.6 for psoriasis. A statistically significant association between the other SNPs studied and other pathologies was found. Validation analysis was carried out in the Spanish population, where we found a significant association ($P < 0.05$, allelic test) for rs731236 with SLE.

Table 1. Genotyping of the 4 SNPs differentiated by disease in relation to the control group.

SNPs	IMID	Alelo menor	Alelo mayor	OR (IC)	P alélico	P genotípico
rs731236	**SLE**	**G**	**A**	**0,64(0,42-0,97)**	**0,03**	**0,08**
rs731236	RA	G	A	0,69(0,46-1.05)	0,07	0,12
rs731236	SS	G	A	0,71(0,42-1,18)	0,18	0,37
rs731236	**PS**	**G**	**A**	**0,6(0,36-1,019**	**0,049**	**0,042**
rs2228570	SLE	A	G	1,14(0,74-1,74)	0,6	0,45
rs2228570	RA	A	G	0,83(0,53-1,28)	0,4	0,56
rs2228670	SS	A	G	1,02(0,6-1,73)	1	0,057
rs2228570	PS	A	G	1,16(0,68-1,96)	0,61	0,83
rs797523	SLE	C	A	0,82(0,53-1,26)	0,4	0,072
rs797523	RA	C	A	0,72(0,46-1,12)	0,14	0,064
rs797523	**SS**	**C**	**A**	**0,49(0,27-0,88)**	**0,012**	**0,0064**
rs797523	**PS**	**C**	**A**	**1,21(0,72-2.03)**	**0,45**	**0,016**

Conclusion: Two significant associations have been identified between the G allele of the rs731236 SNPs and the C allele of the rs7975232 of the VDR gene and the absence of an IMIDs. The A allele of rs731236 is a risk allele for developing SLE and Psoriasis.

PANLAR2021-ABS-1387

BARRIERS TO VACCINATION IN PATIENTS WITH RHEUMATIC DISEASES

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Objectives and Introduction: Vaccination allows the prevention of some infectious diseases and / or their complications. On the other hand, patients with rheumatic diseases (RD), by their nature and by their use of immunosuppressive drugs, are more prone to infections. Unfortunately, vaccination in patients with RD is low because patients are not referred for vaccination and there are concerns about the efficacy and safety of vaccines. Thus, the objective of this study was to determine the perceptions and barriers for vaccination in patients with Rheumatic Diseases.

Methods: A survey was designed to evaluate the knowledge, perceptions and barriers that patients with RD apply to recommended vaccines. The survey was applied to patients who were cared for at the outpatient consultation from March to November 2020 through an electronic device with the support of the interviewer.

Results: 471 patients were included, 84.5% women, age 46.91 ± 14.54 years, 42.46% RA, 30.57% SLE, 5.94% spondyloarthritis and 21.03% others. Only 120 (25.48%) knew about the vaccination schedule. Only 279 (59.24%) had received a vaccine in the last 5 years. The main causes for not being vaccinated were lack of indication from the doctor, ignorance and fear of adverse effects or interactions with their medications (Table 1).

Conclusion: The barriers to vaccination in RD are the lack of indication by the physician and the patient's ignorance of the recommended scheme. It is important to spend time in the office to discuss this with the patient to improve vaccination rates.

Reference:

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PANLAR2021-ABS-1138

LOSS TO FOLLOW-UP IN RHEUMATIC PATIENTS DURING TRANSITION PERIOD

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Objectives: During transition period, patients are transferred from a senior resident to a first year resident; this could lead to loss to follow up and increase in disease activity.

OBJECTIVES:

a) To estimate the frequency of lost to follow-up in patients with autoimmune rheumatic diseases during the transition period.

b) To compare this frequency with the frequency of lost to follow up in patients who are usually care for at the same department.

c) To describe disease activity and degree of disability during the transition period and compare them with previous values.

Methods: An analytical, observational and longitudinal study with review of medical records was performed. Disease activity was evaluated with established and validated indexes for each pathology. Continuous variables were described as mean and standard deviation (SD) or median and interquartile range (IQR), according to distribution. Categorical variables were expressed in percentages. For the bivariate analysis, the Students't or Mann Whitney tests were used for continuous variables. Categorical variables were analyzed using Chi square or Fisher's exact tests.

Results: 59 patients were included, the most frequent pathologies were: RA (55.93%), pSS (13.56%), SLE (10.17%), SSc (8.47%), JIA (6.78%), PsA (3.39%) and EA (1.69%). One death occurred during the transition period (1.72%) and 2 patients required hospitalization (3.44%) due to lupus nephritis and severe lupus hematological manifestations. The median time from the last medical consultation and the first one after the transition period was 3 months (1-5).

63 patients were included in the control group, being RA (57.14%) and SLE (19.05%) the most common disorders.

Categories follow-up data of each group are detailed in graph 1. No statistically significant differences were found between the mean of DAS 28 (3.24 ± 1.3 vs 3.58 ± 1.3, $p = 0.21$); as well as between the medians of CDAI (9: 4-15 vs 8.5: 3-13, $p = 0.89$) and HAQ DI (1:0.3-1.3 vs 0.83 :0.5-1.5, $p = 0.85$) between visits. The other pathologies included, were evaluated in both visits using their respective assessment tools, and no statistically significant difference was found between them.

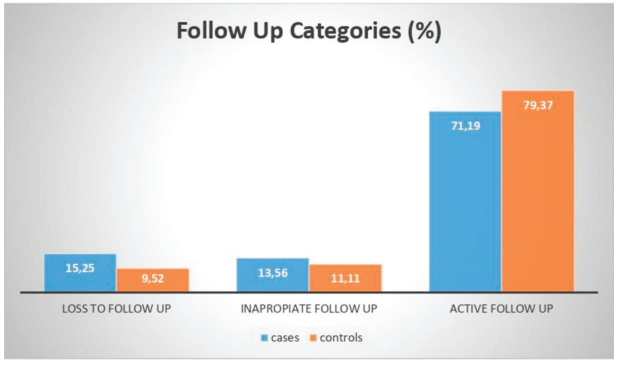
Conclusion: No significant differences were found between the frequencies of lost to follow up in patients during transition vs the control group. This result might change by increasing the number of patients included. We believe it is convenient to determine the modifiable factors that could contribute to loss to follow-up, in order to achieve greater care adherence.

References:

1. Support for the transition of medical care from adolescence to adulthood within the medical home. Patience White. Pediatrics, volumen 142. November 2018.
2. Transition of Care and Health-Related Outcomes in pediatric onset Systemic Lupus Erythematosus. Susanna Felsenstein. Arthritis Care & Research Vol. 67, No. 11, November 2015, p 1521–1528.

POPULATION	CASES N=59	CONTROLS N=63
Sex Woman (%)	49 (83.05)	58 (92.06)
Age (mean±SD)	52 (± 14)	50 (±13)
Occupation		
House wife (%)	31 (52.54)	36 (57.14)
Employee (%)	14 (23.73)	11 (17.46)
Unemployeed (%)	3 (5.08)	2 (3.17)
Retired (%)	4 (6.78)	7 (11.11)
Health insurance (%)	7 (11.86)	5 (7.93)
Admission requeriment (%)	2 (3.44)	
Deaths (%)	1 (1.72)	

Table 1 : Demographics characteristics



Graphic 1: Follow up categories.

PANLAR2021-ABS-1357

EVALUATION OF A NON-FACE TO FACE MULTIDISCIPLINARY HEALTH CARE MODEL IN A POPULATION WITH RHEUMATOID ARTHRITIS VULNERABLE TO COVID-19 IN A HEALTH EMERGENCY SITUATION

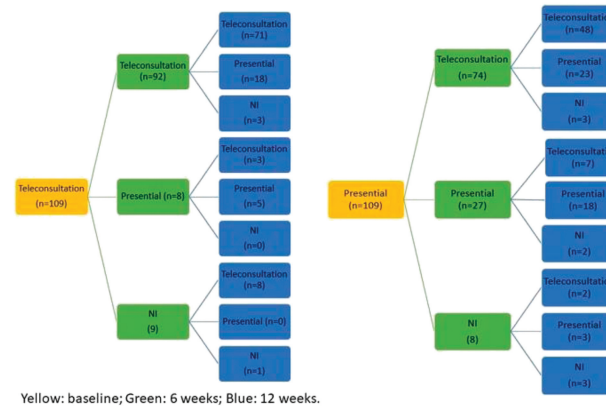
Rosangela Casanova[1], Gabriel-Santiago Rodríguez-Vargas[1], Laura Villareal[2], Jaime A Rubio[1], Elías Quintero[1], Maria Alejandra Gómez, Josefina Chávez-Chávez, Diana Patricia Rivera-Triana[1], Ruth Alexandra Castiblanco-Montañez[3], Sandra Milena Hernández-Zambrano[3], Pedro Santos-Moreno[4], and Adriana Rojas-Villarraga. *[1]Research Division, Fundación Universitaria de Ciencias de la Salud-FUCS, [2]Assistance Direction, Biomab IPS, [3]Facultad de Enfermería, Fundación Universitaria de Ciencias de la Salud-FUCS, [4]Scientific Direction, Biomab IPS, Bogotá, Colombia.*

Objectives: The COVID-19 pandemic has impacted everyday practice pattern of health care in rheumatoid arthritis (RA) patients. The objective was to evaluate the implementation of a tele-consultation program in an adult population with RA

Methods: Analytical observational study longitudinal cohort (Clinical trials NCT04768413) that evaluated the effectiveness of a teleconsultation model compared with a face-to-face consultation model in adult RA patients. Patients were followed 12 weeks (Jul-Oct 2020) at an RA center of excellence in Colombia. Simple random sampling was done. Two groups were included: Group A, patients who were cared for by tele-consultation care and Group B, those who wished to continue with the usual face-to-face consultation. Data regarding activity of disease (Week 0,6,12) [Patient Activity Scale (PAS) in both groups and DAS28 in group B], and Quality of life [EQ-5D-3L], disability [Health Assessment Questionnaire (HAQ)], therapeutic adherence [Morisky-Green Adherence Scale (MGLS)] and self-care capacity [Appraisal of Self-care Agency Scale -Revised (ASA-R)] were evaluated (weeks 0-12). Outcomes regarding COVID-19 were evaluated. Bivariate analysis was done (StataV-13; P-value<0.05).

Results: 218 adults were included: (109/Group A-109/Group B). The groups did not differ in general characteristics (Table). Group A: (n = 71), no statistically significant differences were observed in the median scores of VAS global, VAS pain, PAS, HAQ, EQ-5D and ASA-R while increase in adherence was demonstrated (MGLS, without statistical significance). Group B: (n = 18), a significant increase in adherence (MGLS, p = 0,019) and in self-care (ASA-R, p = 0,0077) were found, no other differences were found (including DAS-28). A third group was constituted by patients that transited between the two models (figure). An increase in ASA-R was demonstrated in this group presential>remote>presential (p = 0,0001);

Figure. Patient flow chart at each follow-up (0-6-12 weeks)



Yellow: baseline; Green: 6 weeks; Blue: 12 weeks.

Table. Main characteristics of patients

Variable		Teleconsultation n=109*		Face to Face n=109*		p-valor
Age		61.1	12.6	61.9	12.5	0,6079
Age at onset		47.7	13.6	46.7	13.5	0.593
Age at diagnosis		50.2	13.7	49.9	13.3	0.872
Variable		n	(%)	n	(%)	
Sex	Female	90	82.6	87	79.8	0.603
Marital status	Married	44	40.4	51	46.8	
	Single	34	31.2	21	19.3	0.055
	Other	31	28.4	37	33.9	
Socioeconomic status (presential n=106)	Low	61	56	58	54.7	0.794
	Middle or high	48	44	48	45.6	
Residence	Bogotá	77	70.6	89	81.7	0.57
	Outside Bogotá	32	29.4	20	18.4	
Occupational status	Household duties	46	42.2	48	4.0	
	Intellectual/ office work	18	16.5	4	3.7	0.000
	Manual work	24	22.0	18	16.5	
	Household duties	46	42.2	48	44	
	Other	21	19.3	39	35.8	
Educational level	None	1	0.9	0	0	
	Primary school	47	43.1	34	31.2	
	Secondary school	35	32.1	50	45.9	0.124
	Technician	21	19.3	15	13.8	
	University	4	3.7	9	8.3	
	Postgraduate	1	0.9	1	0.9	
Comorbidities (Teleconsultation n=108)	Arterial hypertension	36	33.0	38	34.9	0.775
	Osteoarthritis	82	75.9	86	78.9	0.600
	Fibromyalgia	2	1.8	11	10.1	0.010
	Hypothyroidism	27	24.8	25	22.9	0.751
	Osteoporosis	38	34.9	47	43.5	0.192
Previous surgical procedures		89	84.0	74	67.9	0.000
Erosivity		50/102	49.0	44	40.4	0.206
Polyautoimmunity	Systemic Lupus Erythematosus	2	1.8	2	1.8	
	Sjögren's syndrome	5	4.6	5	4.6	
	Systemic Sclerosis	2	1.8	2	1.8	0.087
	Other	9	8.3	2	1.8	

*median (Standard deviation)

the same result was documented in the group presential>remote>presential, with an increase in adherence (p = 0,033). 7 patients developed COVID-19 (one patient hospitalized/group A and one patient died/mixed model)

Conclusion: In the teleconsultation model patients remained adherent to their RA treatment, without major differences compared to the face-to-face model. It is important to know these results due to the impact they have, given the changes that will follow in the care of RA patients due the current pandemic. Studies with a longer follow-up period are required to corroborate these results.

PANLAR2021-ABS-1211

A 15-YEAR-OLD AUTOPSY-BASED STUDY OF CAUSES OF DEATH IN PATIENTS WITH AUTOIMMUNE DISEASES

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Objective: To describe the main causes of death, as determined by autopsy findings, in patients with an autoimmune disease (AD) in a central hospital of the Colombian Northeast.

Methods: A descriptive medical records review study of the database from the Pathology Department at UIS in Bucaramanga, Colombia. A total of 4430 autopsies were performed between January 2004 and December 2019 in patients whose death occurred at Hospital Universitario de Santander or other hospitals in the Bucaramanga metropolitan area. Perinatal autopsies cases were excluded (2181) and 2249 autopsy reports were examined, of which 44 corresponded to patients with AD (Figure 1).

Results: A total of 44 cases were included, 27 (61.4%) were female and 17 (38.6%) were male. The mean age was 39 years with a range from 13 to 69 years. The most common AD were systemic lupus erythematosus (43.2%), rheumatoid arthritis (31.8%), and autoimmune hepatitis (6.8%). The most common cause of death as determined at autopsies was infections (66%), followed by organ compromise due to disease activity (25%), and lastly other causes (9%) like pulmonary thromboembolism or cardiovascular disease; conditions that are more likely to occur in patients with AD. Of the infections, a half corresponded to opportunistic microorganisms. A detailed description of the reported cases is displayed in tables 1-2. Almost all patients were receiving immunosuppressive therapy. The most commonly used agents were prednisone (75%), methotrexate (20.5%), and azathioprine (16%). The immunosuppressive medication used on each disease is shown in table 3.

Figure 1. Flowchart of case selection.

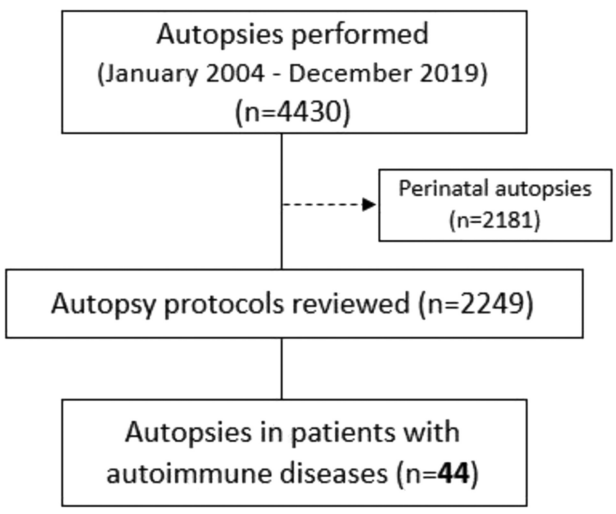

Table 1. Sociodemographic characteristics of cases.

Characteristic \ AD n (%)	SLE 19 (43.2)	RA 14 (31.8)	AH 3 (6.8)	SSc 2 (4.5)	DMPM 2 (4.5)	GS 2 (4.5)	PBC 1 (2.2)	PV 1 (2.2)	Total 44 (100)
Female	13 (68.4)	7 (50)	3	2	-	1	1	-	27 (61.4)
Male	6 (31.6)	7 (50)	-	-	2	1	-	1	17 (38.6)
Mean age of death (years)	28.2	49.5	43	67.5	40	17.5	51	53	39

AD= Autoimmune Diseases; SLE= Systemic lupus erythematosus; RA= Rheumatoid arthritis; AH= Autoimmune Hepatitis; SSc= Systemic sclerosis; DMPM= Dermatopolymyositis; GS= Goodpasture Syndrome; PBC= Primary Biliary Cholangitis; PV= Pemphigus vulgaris.

Table 2. Causes of death determined at autopsies findings.

Cause of death \ AD n (%)	SLE 19 (43.2)	RA 14 (31.8)	AH 3 (6.8)	SSc 2 (4.5)	DMPM 2 (4.5)	GS 2 (4.5)	PBC 1 (2.2)	PV 1 (2.2)	Total 44 (100)
Infections	12 (63.2)	11 (78.6)	1 (30)	2 (100)	2 (100)	-	-	1 (100)	29 (66)
Pneumonia (CAP)	5 (41.6)	3 (27.3)	1	1	-	-	-	-	-
Septic shock	2 (16.7)	2 (18.2)	-	-	-	-	-	-	-
Opportunistic Infection	5 (41.6)	6 (54.5)	-	1	2	-	-	1	-
Tuberculosys	2	4	-	1	2	-	-	1	-
Other OI	3	2	-	-	-	-	-	-	-
Disease activity	6 (31.6)	-	2 (70)	-	-	2 (100)	1 (100)	-	11 (25)
Renal failure	3 (50)	-	-	-	-	-	-	-	-
Respiratory failure	-	-	-	-	-	2	-	-	-
Hepatic failure	-	-	2	-	-	-	1	-	-
MODS	3 (50)	-	-	-	-	-	-	-	-
Other	1 (5.2)	3 (21.4)	-	-	-	-	-	-	4 (9)
Pulmonary embolism	1	1	-	-	-	-	-	-	-
Myocardial infarction	-	2	-	-	-	-	-	-	-

AD= Autoimmune Diseases; SLE= Systemic lupus erythematosus; RA= Rheumatoid arthritis; AH= Autoimmune Hepatitis; SSc= Systemic sclerosis; DMPM= Dermatopolymyositis; GS= Goodpasture Syndrome; PBC= Primary Biliary Cholangitis; PV= Pemphigus vulgaris; CAP= Community-acquired Pneumonia; OI= opportunistic infections; MODS= Multiple organ dysfunction syndrome.

Table 3. Immunosuppressive medication used on each disease.

Drug \ AD n (%)	SLE 19	RA 14	AH 3	SSc 2	DMPM 2	GS 2	PBC 1	PV 1	Total 44
Prednisone	17	11	2	2	2	1	1	1	37 (84)
Methotrexate	-	9	-	-	-	-	-	-	9 (20.5)
Azathioprine	3	-	2	1	-	-	-	1	7 (16)
Cyclophosphamide	2	-	-	-	-	-	-	-	2 (4.5)
Adalimumab	-	2	-	-	-	-	-	-	2 (4.5)

Conclusion: The main cause of death in our cases were infections and the majority corresponded to young and middle-aged women. These results corroborate previous reports regarding the importance of infections as a cause of death in patients with AD and the fatal outcomes of a severe and out of control active disease. It is a challenge for the clinician treating patients with AD to achieve a balance between obtaining an effective treatment (usually high doses of immunosuppressive drugs) and minimizing the risks of adverse events related to the medications like infections.

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PANLAR2021-ABS-1234

COUNTRY COMPARISON ON THE IMPACT OF THE COVID-19 PANDEMIC ON PATIENTS WITH RHEUMATIC DISEASES. RESULTS FROM THE REUMAVID STUDY (PHASE 1)

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Objectives: The aim is to evaluate country differences on the impact of the first wave of the COVID-19 pandemic on life habits, healthcare access, health status, mental health and wellbeing in European patients with rheumatic and musculoskeletal diseases (RMDs).

Methods: REUMAVID is an international collaboration led by the Health & Territory Research group at the University of Seville, together with a multidisciplinary team including patient organizations and rheumatologists. This cross-sectional

study consisting of an online survey gathering data from patients with a diagnosis of 15 RMDs in Cyprus, France, Greece, Italy, Portugal, Spain, and the United Kingdom. Participants were recruited by patient organizations (April-July 2020). The Kruskal-Wallis and $\chi 2$ tests were used to analyse differences between countries and independent variables.

Results: 1,800 patients participated in the first wave of the COVID-19 pandemic (REUMAVID). 37.8% of Spanish patients increased their smoking consumption during the pandemic followed by Cyprus (32.1%) and Portugal (31.0%), while alcohol consumption was higher in the UK (36.3%) and France (27.0%). 82.3% of patients in Spain were unable to keep their appointment with their rheumatologist, either due to cancellations or other personal reasons. Access to primary care was most limited in Portugal and Italy, where only 45.0% and 51.6% got access. 61.9% in Italy and 53.3% in Spain experienced a worsening of their health during the pandemic. 68.5% in Spain and 67.8% in Portugal were at risk of anxiety. The highest proportion at risk of depression was found in Greece (55.4%), Cyprus (55.1%), and Italy (54.8%). 66.9% of patients in Spain reported poor wellbeing, compared to 23.8% in Italy and 30.1% in Portugal (Table 1).

Table 1. Bivariate analysis between sociodemographic characteristics, lifestyle, employment, healthcare and patient-reported outcomes by countries (N= 1,800, unless specified)

	Mean ± SD or n (%)						
	UK	Spain	France	Greek	Cyprus	Italy	Portugal
- Inflammatory arthritis[1]	509 (91.2)	402 (86.6)	147 (64.2)	33 (57.9)	57 (56.4)	89 (70.1)	120 (45.5)
- Fibromyalgia	53 (9.5)	14 (3.0)	26 (11.4)	14 (24.6)	28 (27.7)	53 (41.7)	124 (47.0)
- Connective tissue disease[2]	36 (6.5)	15 (3.2)	13 (5.7)	25 (43.9)	33 (32.7)	30 (23.6)	61 (23.1)
- Osteoarthritis	140 (25.1)	29 (6.3)	102 (44.5)	0 (0.0)	8 (7.9)	15 (11.8)	13 (4.9)
- Osteoporosis	50 (9.0)	3 (0.6)	20 (8.7)	2 (3.5)	9 (8.9)	18 (14.2)	12 (4.5)
- Vasculitis[3]	9 (1.6)	1 (0.2)	6 (2.6)	3 (5.3)	3 (3.0)	5 (3.9)	9 (3.4)
- Sapho (only France)	-	-	15 (6.6)	-	-	-	-
Smoking. More than before N= 556	16 (10.3)	48 (37.8)	22 (24.7)	8 (23.5)	9 (32.1)	8 (20.5)	26 (31.0)
Alcohol consumption. More than before. N= 1,085	99 (36.3)	48 (10.3)	27 (27.0)	4 (7.0)	4 (4.0)	4 (13.3)	11 (18.3)
Unable to meet rheumatologist. N= 722	83 (48.8)	186 (82.3)	27 (30.3)	18 (64.3)	22 (51.2)	9 (31.0)	77 (56.2)
Access to primary care. N= 689	87 (76.3)	65 (67.7)	32 (76.2)	14 (60.9)	17 (60.7)	65 (51.6)	117 (45.0)
Change in health status. Much worse or worse. N=1,786	214 (38.4)	245 (53.3)	98 (43.0)	24 (42.9)	38 (38.4)	78 (61.9)	135 (51.9)
WHO-5. Poor well-being (≤50). N= 1,777	292 (52.5)	303 (66.9)	100 (43.9)	21 (37.5)	46 (46.5)	30 (23.8)	78 (30.1)
Risk of anxiety. N= 1,769	241 (43.6)	309 (68.5)	118 (52.0)	31 (55.4)	61 (62.2)	78 (61.9)	175 (67.8)
Risk of depression. N= 1,769	186 (33.6)	232 (51.4)	101 (44.5)	31 (55.4)	54 (55.1)	69 (54.8)	138 (53.8)

Note: all relations were significant at the 0.001 level [1]Including: Axial Spondyloarthritis, Rheumatoid Arthritis, Psoriatic Arthritis, Juvenile Idiopathic Arthritis, Gout and Peripheral Spondyloarthritis; [2]Including: Systemic Lupus Erythematosus, Sjögren's Syndrome, Systemic Sclerosis and Myositis; [3]Including: Polymyalgia Rheumatic and Vasculitis or Arteritis.

Conclusion: The first wave of the pandemic and the related containment measures heterogeneously affected patients with RMDs across European countries, who overall increased harmful habits, experienced more difficulties in accessing healthcare and, reported poor mental health and well-being.

PANLAR2021-ABS-1358

CARDIOVASCULAR AUTONOMIC NEUROPATHY IN PATIENTS WITH GOUT AND SYSTEMIC PERIPHERAL NEUROPATHY

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Objectives: There is an increased risk of developing cardiovascular disease (CVD) in gout patients, yet the pathophysiology remains unclear. On the other hand, there is an association between systemic peripheral neuropathy (SPN) and cardiovascular autonomic neuropathy (CAN), increasing CVD risk in patients with diabetes, HIV, and Parkinson's disease. We have found an association of SNP with gout in patients with gout, but we have not determined their relationship with CAN. Our aim was to investigate the presence of SPN and their relationship with CAN in patients with gout.

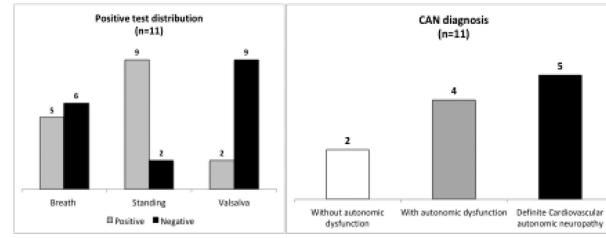
Methods: This is a cross sectional study that included gout patients (ACR / EULAR) from the GRESGO (GRupo de EStudio de GOta) cohort at the Rheumatology department, Hospital General de México. We performed 4 limbs nerve conduction studies (NCS) with conventional techniques and cardiovascular test using EMG equipment (Neuromax XLTEK; Natus Medical Incorporated; Oakville, Ontario, Canada). We assessed heart rate variability (HRV), that provides indirect insight into autonomic nervous system tone, employing the Ewing and Clark's battery: HR response to standing,

HR response to deep breathing and HR response with Valsalva's maneuver. The R-R interval was measured, and the Inspiration/Expiration (I/E) rate was calculated. Patients were classified in 3 groups:

- Without autonomic dysfunction (3 normal tests)
- With autonomic dysfunction (rate I/E low in 1/3 tests)
- Definite CAN (rate I/E low in 2 or 3 test)

Results: We included 162 patients with gout (n = 116;71.6% with tophaceous gout). The patients were 49.4 ± 12 years of age, 159 (98%) were male; the BMI was 27.9 ± 6 kg/cm2. Main comorbidities: dyslipidemia (n = 86;53.1%), hypertension (n = 46;28.4%) and obesity (n = 38;23.5%). NCS were abnormal in 106 (65.4%) patients and 51 (48%) had SPN.

Eleven patients with SPN were selected to perform HRV testing: 4 (36.4%) patients had autonomic dysfunction, 5 (45.5%) with definite CAN and 2 (18.2%) without CAN. Positive tests distributions were variable being more frequent HR response to standing (n = 9;81.8%) (Figure 1)



Conclusion: In patients with gout and SPN, CAN is a frequent entity. It is necessary to explore the possible physiopathology that could explain this phenomenon. In the meantime, there is a need to perform specialized tests in patients with gout and SPN to determine their CV risk.

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PANLAR2021-ABS-1369

VALIDATED SPANISH VERSION OF THE METHOTREXATE INTOLERANCE SEVERITY SCORE (MISS) QUESTIONNAIRE IN INFLAMMATORY ARTHRITIS PATIENTS

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Objectives: Translate and validate the MISS questionnaire into Spanish.

Methods: An observational, cross-sectional study. An English to Spanish translation of the MISS questionnaire was carried out. Once the translation had been tried in the general Ecuadorian population, it was applied to 192 patients with arthritis; the final version of the questionnaire was used.

Results: 200 patients were selected, 5 of them were excluded due to lack of adherence to MTX and 3 did not answer the questionnaire correctly. Of the remaining192 patients, women represented 89.1%, the mean age (all subjects) was 51.98 ± 15.45 years. The characteristics of the population are described in table 1. A factorial analysis was performed with the following findings: 18 (64.28%) patients who scored 3 (severe) in any question showed intolerance according to the EGIM questionnaire [OR 19.28 (CI 95% 7.48 to 49.74) p = 0.001]. Furthermore, the frequency of gastrointestinal adverse events and behavior alterations was higher in intolerant patients and in those being treated by the oral route (Table 2). In the multivariate analysis, no significant contributions were found for gender, education level, MTX dose, route of administration, time of use of the drug, other drugs used concomitantly. However, in comorbidities, correlations of some of these was found with EGIM intolerance. The diseases that showed correlation were: Dyspepsia [OR 4.11 (95% CI 1.52 to 11.10) p = 0.01], AP [OR 0.43 (95% CI 0.20 to 0.94) p = 0.05], and SS [OR 9.00 (CI 95% of 2.38 to 34.08) p = 0.001]. Additionally, a correlation was also found between age and intolerance according to EGIM [OR 0.57 (95% CI 0.1 to 1.04) p = 0.001]. Also, when age was divided into two groups, ≥52 and < 52 years, older patients were less likely to have intolerance to MTX [OR 0.47 (95% CI 0.22 to 1.05) p = 0.05]. Patients with SS, dyspepsia and who had scored 3 on any question had the highest risk for intolerance according to EGIM [OR 23.04 (95% CI 8.18 - 64.92) p = 0.01].

Table 1. Baseline characteristics of the patient at the time to fill in the EGIM questionnaire.*

	Intolerance to MTX	Tolerance to MTX
Rheumatic Diseases		
Psoriatic arthritis	13 (11.7)	98 (88.3)
Rheumatoid arthritis	10 (22.2)	35 (77.8)
Lupus	2 (16.7)	10 (83.3)
Ankylosing Spondylitis	2 (11.8)	15 (88.2)
Sjogren's syndrome	6 (60.0)	4 (40.0)
Comorbidities		
Dyspepsia	8 (40.0)	12 (60.0)
Fatty liver disease	1 (5.6)	17 (94.4)
Gastritis	3 (42.9)	4 (57.1)
Hypothyroidism	0 (0.0)	7 (100.0)
CKD 3	0 (0.0)	10 (100.0)
Gastroesophageal reflux	3 (15.8)	16 (84.2)
Mood disorder	1 (9.1)	10 (90.9)
Sleep disorder	0 (0.0)	4 (100.0)
Anxiety and depression disorder	1 (20.0)	4 (80.0)
Dose		
500mg/ 20ml	15 (21.4)	55 (78.6)
7.5mg/week	10 (27.0)	27 (73.0)
10mg/week	4 (10.8)	33 (89.2)
15mg/week	2 (9.1)	20 (90.9)
12.5mg/week	1 (4.5)	21 (95.5)
Route of administration		
Oral	17 (14.5)	100 (85.5)
Time using MTX		
>1 year	20 (16.9)	98 (83.1)
<12 meses y >6 meses	11 (19.6)	45 (80.4)
<6 meses y >3 meses	1 (5.6)	17 (94.4)
DMARDs		
Leflunomide	7 (20.6)	27 (79.4)
Sulfasalazine	22 (16.7)	110 (83.3)
Other medication		
NSAIDs	7 (19.4)	29 (80.6)
Antacids	5 (16.7)	25 (83.3)
Antidepressants	2 (7.7)	24 (92.3)
Benzodiazepines	2 (11.8)	15 (88.2)
Sodium bicarbonate	0 (0.0)	9 (100.0)
Bisphosphonates	0 (0.0)	8 (100.0)
COXIBS	8 (12.9)	54 (87.1)
Gabapentin	14 (18.7)	61 (81.3)
Opioids	1 (4.3)	22 (95.7)
Acetaminophen	1 (5.0)	19 (95.0)
Prednisone	10 (18.9)	43 (81.1)
Academic grade		
Elementary school	2 (12.5)	14 (87.5)
High School	8 (10.8)	66 (89.2)
College	18 (20.2)	71 (79.8)
Master's degree	4 (30.8)	9 (69.2)

*Values are represented by N (%) of patients, they were divided into tolerant or intolerant to MTX according to EGIM questionnaire. EGIM = Methotrexate Intolerance Severity Scale; CKD 3 = Chronic kidney Disease grade 3; NSAIDs = Non-steroidal anti-inflammatory drugs; COXIBS = Cyclooxygenase (COX)-2 inhibitors.

TABLA #2. General prevalence and by domains of the EGIM questionnaire. The frequency of discomfort is compared based on tolerance according to EGIM and route of administration. *

	Tolerant	Intolerant	MTX Oral	MTX Subcutaneous
EGIM intolerance	160 (83.3)	32 (16.7)	17 (53.1)	15 (46.9)
Stomach pain after taking MTX	16 (44.4)	20 (55.6)Ψ	20 (55.6)	16 (44.4)
Stomach pain before or when thinking about MTX	14 (38.9)	22 (61.1)Ψ	20 (55.6)	16 (44.4)
Nausea after taking MTX	21 (42.9)	28 (57.1)Ψ	24 (49)¥	25 (51)
Nausea before or when thinking of MTX	17 (42.5)	23 (57.5)Ψ	22 (55)	18 (45)
I vomit after MTX	7 (70)	3 (30)	7 (70)	3 (30)
I vomit before taking MTX	3 (60)	2 (40)	3 (60)	2 (40)
Restless when taking MTX	27 (52.9)	24 (47.1)Ψ	30 (58.8)	21 (41.2)
I cry when taking MTX	13 (41.9)	18 (58.1)Ψ	17 (54.8)	14 (45.2)
Irritable when taking MTX	30 (54.5)	25 (45.5)Ψ	34 (61.8)	21 (38.2)
I refuse to take MTX	31 (56.4)	24 (43.6)Ψ	35 (63.6)	20 (36.4)

* Values are represented by N (%). The patients were defined as intolerant according to the EGIM questionnaire with a cut-off point of ≥8. The values and their% are represented based on the frequency of the alteration in the domain, therefore, they are outside the cut-off point ≥8 for intolerance. The frequency of symptoms after ingestion of MTX is analyzed, as well as anticipatory discomfort.
ΨP = 0.001
¥ P = 0.05

Conclusion: The Spanish translation of the MISS questionnaire is a valid and reliable tool for the detection of intolerance to MTX in patients with inflammatory arthritis.

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PANLAR2021-ABS-1384

EXPRESSION OF LONG NONCODING RNAS MZF1-AS1 AND GAS5-AS1 IN MONOCYTES FROM PATIENTS WITH ANTIPHOSPHOLIPID SYNDROME

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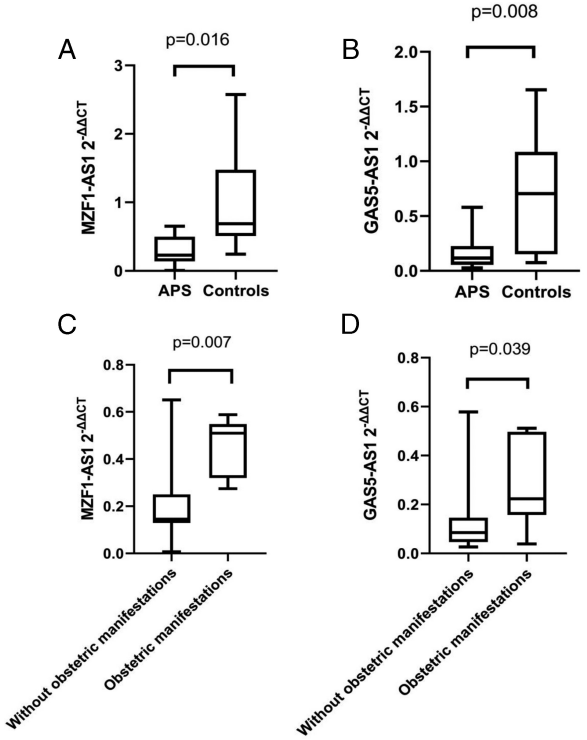
Objectives: Long noncoding RNAs (lncRNAs) are molecules over 200 nucleotides in length that do not encode proteins, which are emerging

as important regulators of gene expression via epigenetic modifications, as well as transcriptional and post-transcriptional regulation. There is growing evidence that lncRNAs are key in regulating normal and abnormal immune functions. In particular, GAS5-AS1 and MZF1-AS1 have been found to be dysregulated in rheumatoid arthritis and systemic lupus erythematosus, although their role in antiphospholipid syndrome (APS) remains unclear; therefore, our aim was to investigate whether the expression of MZF1-AS1 and GAS5-AS1 in monocytes is associated with clinical and laboratory features in APS.

Methods: Twenty-five patients with APS (Sydney criteria) consecutive to our rheumatology outpatient clinic and 17 healthy blood donors were studied. Mononuclear cells were collected from total blood by density gradient centrifugation and monocytes were after separated by positive magnetic sorting system. Total RNA was extracted from monocytes and cDNA was synthesized using the RT2 First Strand kit. Finally, real-time PCR was performed for lncRNAs quantification using the $2^{-\Delta\Delta CT}$ method (GAPDH as endogenous control).

Results: We found lower levels of MZF1-AS1 (median 0.23, IQR 0.14 to 0.50 versus 0.69, 0.51 to 1.47; p = 0.016) and GAS5-AS1 (0.12, 0.05 to 0.22 versus 0.70, 0.15 to 1.08; p = 0.008) in the APS group compared to controls (figure 1, a and b). In APS patients, MZF1-AS1 expression showed to be correlated with triglycerides (Rho = 0.794; p = 0.006), total cholesterol (Rho = 0.650; p = 0.022), and tumor necrosis factor (TNF) mRNA (Rho = -0.510; p = 0.009); meanwhile, GAS5AS1 correlated with DIAPS score (Rho = -0.455; p = 0.038), TNF mRNA (Rho = -0.510; p = 0.007), white blood cell (Rho =0.509; p = 0.015) and neutrophil counts (Rho = 0.561; p = 0.007). Finally, higher levels of MZFI-AS1(0.51, 00.32 to 0.55 versus 0.14, 0.13 to 0.25: p = 0.007) and GAS5-AS1 (0.22, 0.16 to 0.49 versus 0.08, 0.05 to 0.15; p = 0.039) were found in the group of women who had a history of pregnancy comorbidities compared to their counterparts without obstetric morbidity (figure 1, c and d).



Conclusion: Our results suggest that MZFI-AS1 and GAS5-AS1 may play a role in APS pathogenesis, especially in women with obstetric morbidity. Molecular mechanisms underlying this association have yet to be elucidated, although they could include leukocyte-dependent systems and lipid metabolism.

PANLAR2021-ABS-1231

IMPACT OF THE COVID-19 PANDEMIC AND LOCKDOWN ON WELLBEING ON PATIENTS WITH RHEUMATIC DISEASES. RESULTS FROM THE REUMAVID STUDY (PHASE 1)

Marco Garrido-Cumbrera[1,2], Helena Marzo-Ortega[3,4], Laura Christen[5], Loreto Carmona[6], José Correa-Fernández[1], Sergio Sanz-Gómez[1], Pedro Plazuelo-Ramos[2], Laurent Grange[7,8], Dale Webb[9], Shantel Irwin[10], Clare Jacklin[11], Souzi Makri[12], Elsa Frazão-Mateus[13,14], Serena Mingolla[15], Katy Antonopoulou[16], and Victoria Navarro-Compán[17]. *[1]Health & Territory Research (HTR), Universidad de Sevilla, Seville, [2]Spanish Federation of Spondyloarthritis Associations (CEADE), Madrid, Spain, [3]Leeds Institute for Rheumatic and Muscusloskeletal Medicine, University of Leeds, [4]Leeds Teaching Hospital Trusts, NIHR Leeds Biomedical Research Centre, Leeds, United Kingdom, [5]Patient Engagement, Novartis Pharma AG, Basel, [6]Institute for Musculoeskeletal Health (InMusc), Madrid, Spain, [7]French League Against Rheumatism (AFLAR), [8]Department of Rheumatology, Centre Hospitalier Universitaire de Grenoble, Grenoble, France, [9]National Axial Spondyloarthritis Society (NASS), [10]Arthritis Action, London, [11]National Rheumatoid Arthritis Society (NRAS), Maidenhead, United Kingdom, [12]Cyprus League Against Rheumatism (CYPLAR), Nicosia, Cyprus, [13]Liga Portuguesa Contra as Doenças Reumáticas (LPCDR), [14]NOVA Medical School, Comprehensive Health Research Centre (CHRC), Lisbon, Portugal, [15]Italian National Association of People with Rheumatic and Rare Diseases (APMARR), Bari, Italy, [16]Hellenic League Against Rheumatism (ELEANA), Athens, Greece, [17]IdiPaz, Hospital Universitario La Paz, Madrid, Spain.*

Objectives: The aim of this study was to assess the emotional well-being and its associated factors in patients with rheumatic and musculoskeletal diseases (RMDs) during the first wave of the COVID-19 pandemic.

Methods: REUMAVID is an international collaboration led by the Health & Territory Research group at the University of Seville together with a multidisciplinary team including patient organizations and rheumatologists. The study consists of an online survey gathering data from patients with a diagnosis of 15 RMDs in Cyprus, France, Greece, Italy, Portugal, Spain, and the United Kingdom. 1,800 participants were recruited between April -July 2020. Participants were divided into:1) Participants with poor wellbeing (World Health Organization-Five Wellbeing Index (WHO-5) ≤ 50), 2) Participants with good wellbeing (WHO-5 > 50). Mann-Whitney and χ^2 tests were used to analyse relations between sociodemographic characteristics, lifestyle, and outdoor contact with wellbeing during the beginning of the COVID-19 pandemic. Statistically significant variables were introduced in binary logistic regressions in order to determine their impact on poor wellbeing.

Results: 1,777 patients with 15 different RMDs were included. The mean age was 52.7, 80.2% women, 48.7% had a university degree, and 69.7% were married or in a relationship. The most frequent diagnoses were inflammatory arthritis (75.4%). 49.0% reported poor wellbeing. Results for the logistic regressions are depicted in Table 1.

Table 1. Logistic regressions. Dependent variable: poor wellbeing (N=1,104)

	Univariate logistic analysis		Multivariate logistic analysis	
	OR	95% CI[1]	OR	95% CI[1]
Patient organisation. Non-member	**1.566**	**1.295, 1.894**	**1.505**	**1.176, 1.925**
Disease activity (VAS ≥ 4)	**1.502**	**1.212, 1.863**	1.155	0.854, 1.561
Risk of anxiety (HADs, 0-21)	**1.667**	**1.378, 2.016**	1.203	0.916, 1.581
Risk of depression (HADs, 0-21)	**1.828**	**1.513, 2.209**	**1.492**	**1.117, 1.994**
Self-reported health. Fair to very bad	**1.575**	**1.295, 1.914**	1.256	0.939, 1.679
Change in health status. Worse	**1.273**	**1.056, 1.534**	1.047	0.797, 1.376
Physical activity. No	**1.354**	**1.069, 1.714**	1.076	0.829, 1.397
Talked with rheumatologist during COVID-19 pandemic. No	**1.452**	**1.041, 2.026**	1.044	0.678, 1.610
Walk outside during COVID-19 pandemic. No	**1.474**	**1.187, 1.830**	**1.363**	**1.024, 1.814**
Element in home with outdoor contact. No	**1.930**	**1.423, 2.618**	**2.104**	**1.408, 3.145**

[1]95% CI for test H_0: OR = 1

Conclusion: Lack of elements in household facilitating outdoor contact, not belonging to a patient organization, the presence of anxiety, and not walking outside during the pandemic increased the probability of poor well-being. These results highlight the importance of environmental factors and the role of patient organizations in addressing the effects of the pandemic and its containment measures.

PANLAR2021-ABS-1232

GENDER DIFFERENCES ON THE IMPACT OF THE COVID-19 PANDEMIC AND LOCKDOWN IN PATIENTS WITH RHEUMATIC DISEASES. RESULTS FROM THE REUMAVID STUDY (PHASE 1)

Marco Garrido-Cumbrera[1,2], Helena Marzo-Ortega[3,4], Laura Christen[5], Loreto Carmona[6], José Correa-Fernández[1], Sergio Sanz-Gómez, Pedro Plazuelo-Ramos[2], Souzi Makri[7], Elsa Frazão-Mateus[8], Serena Mingolla[9], Katy Antonopoulou[10], Laurent Grange[11,12], Clare Jacklin[13], Dale Webb[14], Shantel Irwin[15], and Victoria Navarro-Compán[16]. *[1]Health & Territory Research (HTR), Universidad de Sevilla, Seville, [2]Spanish Federation of Spondyloarthritis Associations (CEADE), Madrid, Spain, [3]Leeds Institute for Rheumatic and Muscusloskeletal Medicine, University of Leeds, [4]Leeds Teaching Hospital Trusts, NIHR Leeds Biomedical Research Centre, Leeds, United Kingdom, [5]Patient Engagement, Novartis Pharma AG, Basel, Switzerland, [6]Institute for Musculoeskeletal Health (InMusc), Madrid, Spain, [7]Cyprus League Against Rheumatism (CYPLAR), Nicosia, Cyprus, [8]Liga Portuguesa Contra as Doenças Reumáticas (LPCDR), Lisbon, Portugal, [9]Italian National Association of People with Rheumatic and Rare Diseases (APMARR), Bari, Italy, [10]Hellenic League Against Rheumatism (ELEANA), Athens, Greece, [11]French League Against Rheumatism (AFLAR), [12]Centre Hospitalier Universitaire de Grenoble, Grenoble, France, [13]National Rheumatoid Arthritis Society (NRAS), Maidenhead, [14]National Axial Spondyloarthritis Society (NASS), [15]Arthritis Action, London, United Kingdom, [16]IdiPaz, Hospital Universitario La Paz, Madrid, Spain.*

Objectives: The COVID-19 pandemic has impacted health, lifestyle, treatment and healthcare of European patients with rheumatic and musculoskeletal diseases (RMDs).

Methods: REUMAVID is an international collaboration led by the Health & Territory Research group at the University of Seville together with a multidisciplinary team including patient organizations and rheumatologists. The study consists of an online survey gathering data from 1,800 patients with a diagnosis of 15 RMDs recruited by patient organizations in Cyprus, France, Greece, Italy, Portugal, Spain, and the United Kingdom. Data are collected in two phases, the first phase between April and July 2020. Mann-Whitney and $\chi 2$ tests were used to analyse differences between gender regarding sociodemographic characteristics, lifestyle, treatment, healthcare, and patient-reported outcomes.

Results: 1,797 patients were included in this analysis. 80.2% were women and had a mean age of 52.6 years. The most common diagnosis was inflammatory arthritis, with higher prevalence of fibromyalgia among women. Overall, women reported worse self-perceived health and a higher risk of anxiety and depression. Women reported an increase in smoking, although they were less likely to drink alcohol; they also engaged less in physical activity. Overall, women were more likely than men to keep their scheduled rheumatology appointment.

Conclusion: The beginning of the COVID-19 and the resulting containment measures have worsened self-perceived health status of patients with RMDs, affecting genders differently. Women reported worse psychological health and life habits such as increased smoking and reduced physical activity, while men increased their alcohol consumption and were less likely to keep their rheumatology appointments.

Table 1. Bivariate analysis between sociodemographic characteristics, patient-reported outcomes, lifestyle, treatment, healthcare use by gender (N= 1,797 unless specify)

		Mean ± SD or n (%)		
		Male (N= 355)	Female (N= 1,442)	P- value
Sociodemographic characteristics				
Disease	Inflammatory arthritis[1]	290 (81.7)	1,064 (73.8)	
	Fibromyalgia	25 (7.0)	287 (19.9)	
	Connective tissue disease[2]	18 (5.1)	195 (13.5)	
	Osteoarthritis	52 (14.6)	255 (17.7)	
	Osteoporosis	10 (2.8)	104 (7.2)	
	Vasculitis[3]	7 (2.0)	29 (2.0)	
	SAPHO (only France)	1 (0.3)	14 (1.0)	
Age, years		52.8 ± 14.2	52.5 ± 12.9	0.896
Educational level	University	162 (45.6)	711 (49.3)	0.215
Marital status	Married or in relationship	269 (75.8)	983 (68.2)	0.002*
Member of a Patient organisation, N=1,795	Yes	188 (53.0)	559 (38.8)	<0.001*
Patient-reported outcomes				
HADS Anxiety, N=1,766	Risk	168 (48.1)	843 (59.5)	<0.001*
HADS Depression, N=1,766	Risk	130 (37.2)	680 (48.0)	<0.001*
Wellbeing, N=1,774	WHO ≤ 50	188 (53.4)	681 (47.9)	0.064
Self-perceived health, N=1,783	Fair or bad	182 (51.4)	958 (67.0)	<0.001*
Change in health status during COVID-19 pandemic, N=1,783	Worse	333 (94.1)	1,339 (93.7)	0.799
Life style during COVID-19 pandemic				
Smoking, N=555	More than before	20 (17.5)	117 (26.5)	0.001*
Alcohol consumption, N=1,083	Quit drinking	71 (25.4)	277 (34.5)	0.013
Physical activity, N=1,126	Yes	144 (60.3)	470 (53.0)	0.045*
Treatment and healthcare				
Able to meet rheumatologist, N= 721	No	89 (65.9)	332 (56.7)	0.049*
Access to GP, N=688	No	43 (39.4)	248 (42.8)	0.512

[1]Including: Axial Spondyloarthritis, Rheumatoid Arthritis, Psoriatic Arthritis, Juvenile Idiopathic Arthritis, Gout and Peripheral Spondyloarthritis; [2]Including: Systemic Lupus Erythematosus, Sjögren's Syndrome, Systemic Sclerosis and Myositis; [3]Including: Polymyalgia Rheumatic and Vasculitis or Arteritis

PANLAR2021-ABS-1305

OPTIC NEURITIS IN RHEUMATOID ARTHRITIS WITH ETARNECEPT. A CLINICAL CASE

Alfredo G. Pech Aguilar and Ángel Castillo Ortiz.

Objectives: Case report due to its complexity and difficult multidisciplinary management.

Methods: 40-year-old woman, radiologist, rheumatoid arthritis (20 years of diagnosis) with Prinzmetal angina. Treatment with Methotrexate 15 mg weekly, Deflazacort, and Leflunomide; due to lack of efficacy, Infliximab was started. Discontinued 3 years before presentation due to an apparent adverse reaction (arterial hypertension); was changed to Etarnecept 50 mg weekly which was switched to the corresponding biosimilar 18 months before presentation. Currently on Plaquenil, Deflazacort, Methotrexate, with an adequate response. She presents with pain in 6/28 joints and refers a decrease in visual acuity present for the preceding 2 months. Magnetic resonance imaging demonstrated bilateral optic neuromyelitis. Physical examination demonstrated chronic changes and swelling in 4/28 joints. Laboratories: Urinalysis normal, glucose 92, urea 18, Cr 0.5, AST 17, ALT 14, GGT 13, Hemoglobin 9.5, platelets 578, leukocytes 5.95, lymphocytes 2.1, CRP negative, PPD negative, chest radiograph without abnormalities. Diagnostic impression: rheumatoid arthritis, DAS 28 moderate activity / bilateral optic neuromyelitis.

Results: Patient currently undergoing treatment based on high doses of glucocorticoids without improvement of neurological symptoms. Due to the extra-articular neurological manifestations and relapse in joint manifestations, withdrawal of anti-TNF was suggested since this group of drugs is associated with the development of optic neuritis. For this reason, she was switched to rituximab 2 gr IV every 6 months for better control of neurological and joint manifestations. However, optic neuritis could also be an extra-articular manifestation of rheumatoid arthritis itself, as a secondary complication of posterior scleritis. The diagnosis could only be done in retrospect when discontinuation of the offending drug to leads to visual improvement or not.

Conclusion: The ocular manifestations of RA are frequent, they can be mild, without requiring specific treatment, or constitute a serious health problem. The ophthalmological evaluation of patients with rheumatoid arthritis is of importance for the early and opportune detection of any pathology. In patients treated with TNF-α antagonists who develop visual disturbances, drug-induced optic neuritis should be considered in the differential diagnosis.

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PANLAR2021-ABS-1198

RISK OF FALLS IN ELDERLY WOMEN WITH LOW BACK PAIN IN BRAZIL

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Objectives: To evaluate the risk of falls in elderly women with low back pain in a city in Brazil.

Methods: Observational study that followed the Strengthening the Reporting of Observational Studies in Epidemiology, carried out in a group of elderly people in the city of Itambé, in Paraná, Brazil. The sample consisted of 30 elderly women diagnosed with low back pain. Downton's Fall Risk Score was used to assess the risk of falling (five criteria): previous falls; use of any medication; presence of some sensory deficit; assessment of mental status; and gait assessment. The results were analyzed using descriptive and inferential statistics.
Results: 70% of the elderly women had previous falls and 56% had a high risk of falling. Considering that the elderly have a decrease in gait speed, that this is a protective factor against falls and not its mechanism; that is, the elderly do not fall due to walking very slowly, but walk with slow steps in a way to prevent falls.
Conclusion: Although the pain resulting from low back pain is a limiting factor in the life of the elderly, it does not appear to cause significant changes in gait or high rates of falls. This result, however, should not obscure the fact that pain reduces the subjects' autonomy and compromises their quality of life. Thus, it is considered important that new studies are carried out, so that knowledge is built that leads to strengthening the autonomy of the elderly. In this case an interdisciplinarity approach can be an important tool, expanding the frontiers of knowledge and allowing a greater understanding of the issues inherent in aging.

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PANLAR2021-ABS-1316

EVALUATION OF MUSCLE AND SKELETAL INJURIES IN TEACHERS OF THE MUNICIPAL PUBLIC EDUCATION SYSTEM IN MANAUS (AM)

Wuerles Barbosa.

Objectives: The present study evaluated the prevalence of musculoskeletal symptoms in elementary school teachers.
Methods: A quantitative, observational and cross-sectional study was carried out in the city of Manaus (AM), from August to December 2018. The sample consisted of 300 teachers from six schools. To carry out the research, a sociodemographic questionnaire, a checklist for ergonomic evaluation, and the Nordic questionnaire were used to assess musculoskeletal symptoms.
Results: 108 (36%) of the teachers who reported any symptoms during the study period were aged between 21 and 35 years. The most affected areas were, sequentially, shoulders 177 (61.6%), thoracic spine 173 (60.2%) and cervical spine 163 (56.7%).
Conclusion: Ergonomic condition of the workplace is considered bad by teachers. A high prevalence of skeletal and muscular symptoms was found among teachers in the urban area of Manaus, whose ergonomic conditions during work are unsatisfactory, with the spine standing out as the most affected body segment.

PANLAR2021-ABS-1322

EVALUATION OF MUSCULOSKELETAL INJURIES IN TEACHERS OF THE MUNICIPAL PUBLIC EDUCATION SYSTEM IN MANAUS (AM)

Wuerles Barbosa.

Objectives: To evaluate the prevalence of musculoskeletal symptoms in elementary school teachers.
Methods: A quantitative, observational and cross-sectional study was carried out in the city of Manaus (AM), from August to December 2018. The sample consisted of 300 teachers from six schools. To carry out this research, a sociodemographic questionnaire, a checklist for ergonomic evaluation, and the Nordic questionnaire were used to assess musculoskeletal symptoms.
Results: 108 (36%) of the teachers who reported any symptoms during the study period were aged between 21 and 35 years. The most affected areas were, sequentially, shoulders 177 (61.6%), thoracic spine 173 (60.2%) and cervical spine 163 (56.7%). The ergonomic condition of the workplace was considered suboptimal by the teachers.
Conclusion: A high prevalence of skeletal and muscular symptoms was found among teachers in the urban area of Manaus; ergonomic conditions during work were unsatisfactory for these teachers, with the spine standing out as the most affected body segment.

PANLAR2021-ABS-1233

CAVIPA: THE SURVEY EXPLORING THE QUALITY OF LIFE OF PATIENTS WITH OSTEOARTHRITIS DESIGNED BY PATIENTS FOR PATIENTS

Laura García.

Objectives: To determine the perception of quality of life of Spanish patients with osteoarthritis of the knee and/or hip focusing on key associated factors, such as knowledge of the disease, satisfaction with their treatment plan, diagnosis, symptoms, functional disability and limitations on daily activities.
Methods: A cross-sectional observational study that includes data collection through a telephone survey of 200 patients. Patients were required to meet the following inclusion criteria to be eligible for this study: (i) being residents of Spain, (ii) being older than 18 years, and (iii) reporting to have been diagnosed with knee and/or hip OA by their physician. The survey, prepared by a group of clinical experts, methodologists and patients, was validated in a pilot study of 10 patients. The final version, approved by the CEIC of the Hospital la Paz in Madrid, was divided into 8 parts that investigate sociodemographic, diagnostic, therapeutic, assistance and joint functionality aspects focusing on patient satisfaction and perception. The questionnaire was preceded by an information sheet and the informed consent form.
Results: A group of trained interviewers compiled 200 surveys of patients living in Spain. The majority of respondents were women ages between 50 and 70. Most subjects reported limitations on their daily activities and would like to receive more information and support to improve their condition. Preliminary results show a delay in diagnosing this disease and possible differences in diagnosis and perception of care at the regional level.
Conclusion: Osteoarthritis is the most common chronic joint disease and posits a huge and growing public health problem. The Osteoarthritis Foundation International (OAFI) has conducted the first patient survey in Spain designed by patients for patients. Preliminary results show barriers to diagnosis and possible differences at the regional level: Challenges to improving the medical and self-care of these patients were identified.

PANLAR2021-ABS-1415

ENT SYMPTOMS ANALYSIS IN A COHORT OF CHILEAN FIBROMYALGIA PATIENTS FRANCISCA

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Objectives: Fibromyalgia (FM) is a common health problem, that affects mainly women, younger than 60th. It is defined by diffuse muscle and join pain and a broad and variable number of sensitive symptoms caused by a neurologic phenomenon named Central Sensitization (CSs). There are reports about association between FM and other chronic visceral Pain syndrome such as Irritable Bowel Syndrome (IBS) or Interstitial Cystitis, but there are lack data about other fields of sensitive transmission. In this study we explored ENT symptoms in a cohort of FM patients in order to provide useful information about this frequent reason for medical consultation.
Methods: We performed an analytic descriptive study in a cohort of 32 patients from the Chilean FM Corporation. All patients fulfilled the 2010-2016 ACR criteria for FM classification; the following were explored: FIQ, Sensitive Symptoms Scale (SSS), Widespread Pain Index (WPI) and ENT surveys about

Hearing Impairment (HI), Dysphonia (D), Swallowing Abnormalities (SA) and Tinnitus (T), Dizziness Evaluation (DE). The association between ENT symptoms and FM parameters was evaluated by Students' t, Chi Square or Fisher's exact tests, as appropriate.

Results: The median age was 54,34 years 30 to 76). All patients were women. The time from diagnosis to assessment was 82,34 months (1 to 396). The time between symptoms onset to FM medical diagnosis was 88,94 months (~7 years). The FM assessments showed a WPI median 12,32 (1-19); a SSS median 9,61 (4–12), Visual Analog Scale (VAS) of pain median 6,91 (0–10), FIQ median 67,60 (10,01–90,9). Additionally, 68,7% FM patients had a diagnosis of IBS;

78,1% had a Mood disorder in treatment, and 51,7% were in treatment because a Temporomandibular Disorder (TMD). Among FM patients, 56,3% showed signs of HI, 75% showed D; 78% SA, 62,5% showed T, 65,6% physical DE (pDE) and 59,4% Functional DE (fDE). We found a significant relation between higher WPI and Dysphonia ($p = 0.030$) as well as higher VAS of pain and D ($p = 0.030$). Higher WPI showed a positive trend with pDE ($p = 0,067\%$) and fDE ($p = 0.057$) but statitical significance was not reached). SSS with Dysphonia showed a positive trend but again statistical significance was not reached ($p = 0.057$). ENT symptoms data showed a statical significance between HI and TMD ($p = 0.016$) in FM Patients.

Conclusion: We found a high prevalence of ENT symptoms in FM patients. More than 50% of the study group showed at least one of the ENT symptoms. Dysphonia has the higher significance with FM scores, WPI, EVA and SSS.

PANLAR2021-ABS-1103

CORRELATION BETWEEN SLEEP QUALITY AND STRESS LEVELS WITH FIBROMYALGIA TENDER POINTS IN INTERNS IN A MEDICINE ROTATION AT UNIVERSIDAD CATÓLICA DE SANTIAGO DE GUAYAQUIL 2019-2020

Nicolas Vela and Jose Eduardo Cabrera.

Objectives: The present study´s objective is to correlate sleep quality, stress levels, presence of anxiety and depression with the development of discomfort in fibromyalgia pain points in medical interns compared to a control group.

Methods: An observational study was carried out using data stored in Excel Sheets and obtained through Google Forms surveys applied to both, the study and the control group participants; the data included were the ACR 2010 Fibromyalgia Diagnostic Criteria, the Scale Pittsburg Sleep Quality Score 2010, Perceived Stress Scale -14, GAD7 Index and PHQ9 Index. There were 100 participants in the study group and 50 in the control group.

Results: There is a moderate significant correlation between the Symptom Severity Index and the studied variables of IPCS, PSS-14, GAD7 and PHQ9; and a weak significant correlation between the Widespread Pain Index with the previously mentioned variables. However, there were no major difference between both participating groups.

Conclusion: There is a significant correlation between poor sleep quality, high levels of stress, depression, and anxiety, with the occurrence of discomfort present in fibromyalgia.

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PANLAR2021-ABS-1160

A MULTICENTER, OBSERVATIONAL, EXTENSION STUDY EVALUATING THE SAFETY, TOLERABILITY, AND EFFICACY OF A SINGLE LORECIVIVINT INJECTION IN KNEE OSTEOARTHRITIS SUBJECTS

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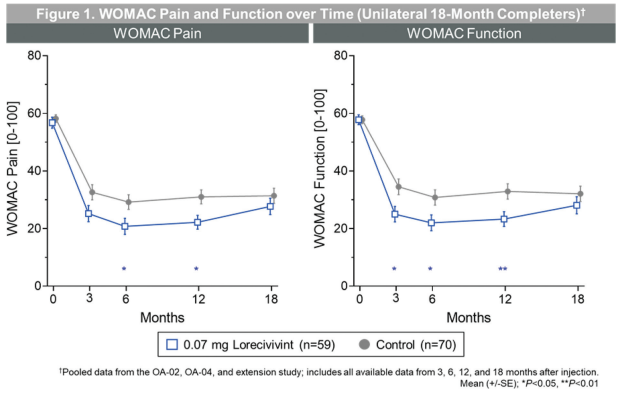
Objectives: Lorecivivint (LOR), an intra-articular (IA) CLK2/DYRK1A inhibitor that modulates the Wnt pathway, is in development as a knee osteoarthritis (OA) treatment. Subjects from two consecutive Phase 2 trials were followed in a pooled observational study of safety and exploratory efficacy of a single LOR injection. Safety data for all doses and a post hoc efficacy analysis for the pivotal dose (0.07 mg LOR) are reported.

Methods: This was a Phase 3, multicenter, observational, extension study of completer subjects (NCT02951026) from two Phase 2 trials of LOR. Subjects received a single LOR or control (placebo or sham) injection at the parent-study baseline visit (Visit 0). Safety outcomes included serious adverse events (SAEs), knee-related adverse events (AEs), and AEs of newly diagnosed conditions requiring treatment. Efficacy was assessed post hoc by target knee WOMAC Pain and Function subscores and radiographic medial joint space width (mJSW) for 0.07 mg LOR versus control in a subject subgroup (unilateral symptoms, no widespread pain, 18-month post-injection radiograph). Baseline-adjusted ANCOVA was performed using data from both the current and parent studies at 0, 3, 6, 12, and 18 months.

Result: 584/703 (83%) of subjects (mean 60.7 years, BMI of 29.1 kg/m^2, 61% female, 61.2% KL 3) completed the study.

The safety analysis set included 495 LOR-treated subjects and 208 control subjects. There were 169 AEs reported by 110 (15.6%) subjects. Four AEs reported by 3 (0.6%) subjects across LOR groups were considered related to study drug; no subjects withdrew from the study due to a treatment-related AE. The most common AEs were osteoarthritis (28 [4.0%]) and arthralgia (25 [3.6%]); incidence was similar



between LOR and control groups. During the study, 68 SAEs were reported by 38 (5.4%) subjects, and no SAEs were considered treatment-related by investigator. One death occurred in the control group. Post hoc efficacy analyses demonstrated 0.07 mg LOR subjects (n = 59) showed greater improvements from baseline in both WOMAC Pain and Function at 6 and 12 months versus control (n = 70) (Fig. 1). No mJSW progression was observed in any group over 18 months.

Conclusion: From these data, LOR appeared to be safe and well tolerated. A post hoc-analyzed subset of completer subjects treated with a single 0.07 mg LOR injection reported durable symptom improvements in WOMAC Pain and Function for up to at least 12 months versus control subjects.

PANLAR2021-ABS-1287

LONGITUDINAL OBSERVATIONAL STUDY IN REAL LIFE TREATMENT IN LATIN AMERICAN PATIENTS WITH DENOSUMB QUERY, ROSELA DATABASE: 2,285 PATIENTS PRELIMINARY REPORT

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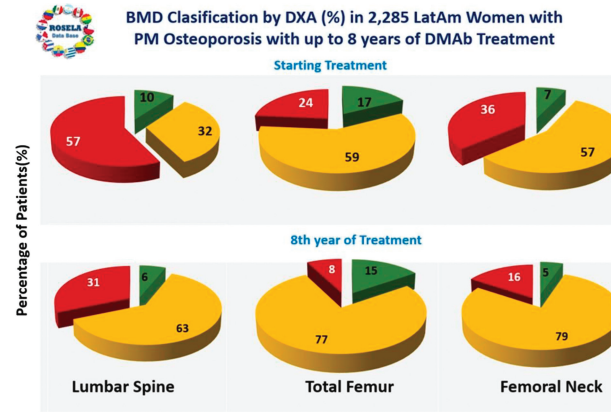
Objectives: Preliminary report of a real-life experience in the treatment of Postmenopausal Osteoporosis (PMOp) with Denosumab (Dmab) in 8 Latin American (LatAm) countries, using a web-based database(DB).



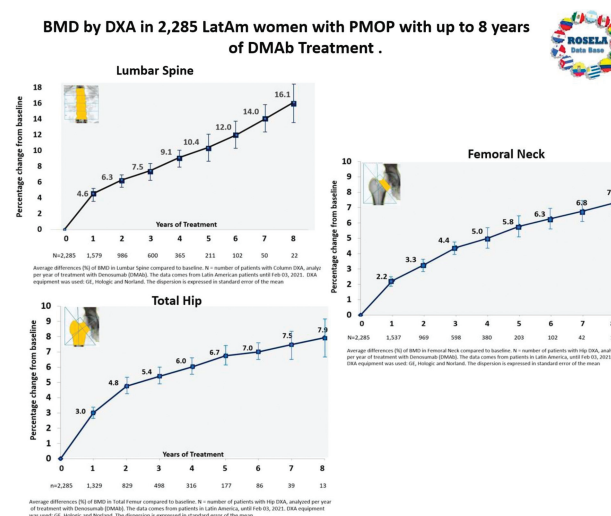
Methods: A multicenter longitudinal descriptive-cohort study, conducted in 8 countries (Mexico, Argentina, Perú, Colombia, Ecuador and Uruguay) with up to 8 years of clinical records of patients treated with Dmab. An online DB was used to collect data in 41 centers.

Results: 2,285 patients, age at baseline (BL) 66 ± 9.8 years, 75.1% >60 years. The main reason for using Dmab: Hip

Op (36.8%) in Bone Densitometry (DXA); lack of BMD gain(31.9%). Dmab was used as the first anti-Op drug in 971(42.5%) patients and 57.5% had used prior anti-Op medication. 57% of patients had osteoporosis in DXA Lumbar Spine at BL and only 31% had it at 8th year of treatment. The average BMD increase from BL up to 8th year: in the Lumbar Spine 16.1%, in the Femoral Neck 7,3% and in the Total Femur 7.9%. There were no differences in BMD gains with DMAb in patients with and without previous fractures, but there were when diabetics and nondiabetics ere compared finding a decrease in BMD gain in Total Femur from the 1st year and in Lumbar Spine from the 4th year ahead. The 10 years FRAX level was 9.1 ± 6.3 for Major OP Fracture Fx) at BL and for Hip Fx 3.3 ± 4.2. A total of 563 (24.6%) prevalent Fx were detected at BL; 201 patients (36.7%) with >1 Fx. Only 107 patients (4.6%) developed Fx during treatment with Dmab. Vertebral (VFx) and non-vertebral Fx (NVFx) increased during 2nd & 3er year of treatment, related with a decrease compliance. Adverse events (AE) were reported in 61 patients (2.6%) and SAE in 71(3.1%), including 2 eczema, 1 ONM and 2 AFF cases. Adherence (Compliance+ Persistence) to Denosumab treatment is not optimal, mainly in years 2 to 4. Only 45% completed 2 years of treatment and only 11% used for at least 4 years.

The loss to follow-up (50.2%) was very high. Most patients received no treatment after discontinuing Dmab. Risedronate and Zolendronate are the most used after stopping Dmab. Only 10 cases of post-Dmab vertebral Fx, 3 with >1 Fracture were reported.

Conclusion: Dmab improves BMD and reduces rate of VFx & NVFx in most patients with PMOp in a real-life environment in 8 LatAm countries. Dmab treatment non-complaince (50.2%) is very high in these countries. Dmab proved to be as safe as observed in clinical registry studies with a very low rate of EA (2.6%) and SAE (3.1%).



PANLAR2021-ABS-1404

COMPARISON OF FRAX SCORES WITHOUT BONE MINERAL DENSITY FOR THE EVALUATION OF RISK FRACTURE IN MEXICAN PATIENTS WITH RHEUMATIC DISEASES

Gabriel Figueroa-Parra[1], Abraham Yair Lujano Negrete, Rolando Moyeda-Martinez[1], Jorge Medina-Castillo[1], Martha Cecilia Rodríguez-Ruíz[1], Sofia Jezzini-Martínez[1], Carmen Magdalena Gamboa-Alonso[1], Alberto Cardenas-De La Garza, Dionicio Angel Galarza-Delgado, and Cassandra Michele Skinner-Taylor[1]. *[1]Rheumatology, Hospital Universitario Dr. "Jose Eleuterio Gonzalez" UANL, Monterrey, México.*

Objectives: Osteoporosis (OP) is characterized by diminished bone strength and deterioration of bone quality, often leading to fragility fractures. Dual-energy x-ray absorptiometry (DXA) is the recommended test for OP screening (1). However, there are limitations to perform DXA on all patients, and clinicians use screening tools to identify those patients with higher risk, like the FRAX score (2). Nevertheless, these scores have shown low to moderate correlation with DXA in patients with rheumatological diseases (RD) (3). The aim of this study was to evaluate the fracture risk in RD patients, using different versions of FRAX scores without a bone mineral density (BMD) measure.

Methods: An observational longitudinal study was performed at the Rheumatology Clinic of the University Hospital "Dr. Jose Eleuterio Gonzalez" in Monterrey, Mexico, from August 2020 to March 2021. Patients with a RD were evaluated.

FRAX score was calculated in the official website using the algorithm for Mexicans. Four versions were calculated: 1).

FRAX score without (w/o) BMD; 2) FRAX score with a T-score of -1.0 (w/ Op); 3) FRAX score with a T-score of -2.5 (w/OP) and a FRAX score with positive previous fracture (Fx+). Then they were classified as low (<10% for OP or < 1% for hip), intermediate (10% > 19% for OP or 1% > <3% for hip) and high risk (≥20% for OP or ≥ 3% for hip). A Cchi-square test was used to compare groups. Spearman's correlation test (rho) was done between OP risk and Hip risk in each version of FRAX. A $p < 0.05$ was considered statistically significant

Results: One hundred and fifty-one patients were included, 92.7% were woman. The most frequent diagnosis was RA in 47.7% of patients, followed by osteoarthritis in 8.6%. 53.6% of patients had a previous BMD measured by DXA. 19% had history of previous fracture. 58.9% of patients were taking glucocorticoids. (Table 1). According to FRAX risk w/o BMD, 120 (79.5%) had low risk, 20 (13.2%) had intermediate risk, and 11 (7.3%) had high risk for OP. According to FRAX risk w/o BMD, 86 (57%) had low risk, 35 (23.2%) had intermediate risk, and 30 (19.9%) had high risk for hip fracture (Table 2). The correlations between OP risk and Hip risk in each version were as follow: FRAX w/o BMD (rho = .618, p = <.001) FRAX w/Op p = <.001); FRAX w/OP (rho = .565, p = <.001); FRAX with Fx + (rho = .618, p = <.005).

Conclusion: There is a wide variability among the different FRAX risk scores evaluated, and moderate to high correlation between OP and Hip risk in patients with RD.

	N= 151	95% C.I.
Age, years, mean (SD)	56.30(9.54)	54.76-57.83
Female, n (%)	140(92.7)	88.5-96-9
Weight, kg, mean (SD)	69.68(14.42)	67.36-72.0
Height, cm, mean (SD)	154(7.1)	153.6-155.9
Previous Fracture, n (%)	29(19.2)	12.8-25.5
Parent Fractured Hip, n (%)	21(13.9)	8.3-19.4
Current Smoking, n (%)	24(15.9)	9.9-21.7
Glucocorticoids, n (%)	89(58.9)	51.0-66.8
Rheumatoid arthritis, n (%)	72(47.7)	39.6-55.7
Secondary osteoporosis, n (%)	1(0.7)	-0.6-1.9
Alcohol use, n (%)	1(0.9)	-0.6-1.9
Previous DXA, n (%)	85(56.3)	48.2-64.2

Table 1. FRAX score risk factors

Table 2. Fracture risk according different FRAX score versions

	Low risk (<10% for OP or <1% for hip)	Intermediate (10%-19% for OP or 1%- <3% for hip)	High risk (≥20% for OP or ≥3% for hip)	P*
FRAX risk w/o BMD, n (%)				
Osteoporosis	120(79.5)	20(13.2)	11(7.3)	<0.05
Hip	86(57.0)	35(23.2)	30(19.9)	
FRAX risk w/Op, n(%)				
Osteoporosis	151(100)	-	-	<0.001
Hip	143(94.7)	7(4.6)	1(0.7)	
FRAX risk w/OP, n(%)				
Osteoporosis	141(93.4)	9(6.0)	1(0.7)	<0.001
Hip	18(11.)	117(77.5)	16(10.6)	
FRAX risk Fx+, n (%)				
Osteoporosis	130(86.1)	20(13.2)	1(0.7)	<0.001
Hip	82(54.3)	51(33.8)	18(11.9)	

*Chi-square test.

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PANLAR2021-ABS-1339

BONE MINERAL DENSITY IN POSTMENOPAUSAL WOMEN WITH TYPE 2 DIABETES MELLITUS WITH AND WITHOUT DIABETIC NEPHROPATHY

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Objectives: Diabetes mellitus and osteoporosis are both common human diseases. Diabetic nephropathy (DN) is characterized by the presence of pathological quantities of urine albumin excretion, diabetic glomerular lesions, and loss of glomerular filtration rate (GFR). Little evidence has been reported on the relationships between bone mineral density (BMD) and albuminuria. The aim of this study was to compare the BMD in postmenopausal women with type 2 diabetes mellitus (T2DM) with and without DN.

Methods: We examined the BMD of the lumbar spine and femur using dual-energy X-ray absorptiometry in 84 postmenopausal women with T2DM with (39) and without (45) DN. The serum levels of calcium, phosphorus, total alkaline phosphatase, and albumin excretion were measured in all participants. Diagnosis of albuminuria was based on albumin-creatinine ratio (ACR).

Results: Age, BMI and time since menopause were not significantly different between the two groups. The T-scores of basal BMD at L4 were significantly lower in patients with DN (-0,94 ± 0,4) compared to patients without DN. No significant differences in serum creatinine were detected between these two groups of patients. Our data suggest that the ACR was negatively associated with lumbar spine and femoral neck BMD.

Conclusion: Our results suggest that postmenopausal women with DN have a lower BMD and are at increased risk of osteoporosis in the lumbar spine compared with postmenopausal women without DN. ACR was negatively associated with lumbar spine and femur neck BMD. One of the explanations that has been proposed for the association between lbuminuria and osteoporosis is that albuminuria is associated with reduced bone blood flow, resulting in a decreased rate of bone remodeling and the development of osteoporosis.

PANLAR2021-ABS-1243

THE INFLUENCE OF PHYSICAL ACTIVITY ON BODY COMPOSITION AND SELF-ESTEEEM OF PEOPLE WITH JUVENILE IDIOPATHIC ARTHRITIS

Rodrigo de Oliveira[1], Paulo Julio[1], Roberto Marini[1], and Simone Appenzeller. [1]*University of Campinas, Campinas, Brazil.*

Objectives: To examine the level of physical activity and its influence on body composition and the self-esteem index of patients with Juvenile Idiopathic Arthritis (JIA) aged ≥18 years.

Methods: The International Physical Activity Questionnaire short version (IPAQ short form) was used to classify the level of physical activity of the JIA group and the control group (CG). Height was checked using the Sanny ES2040 Compact Measuring Tape Stadiometer. The Body composition was performed using the Omrom HBF 514C vertical bioimpedance device. The Body Mass Index (BMI) was calculated using the formula kg / height^2 in meters. The Rosenberg Self-Esteem Scale was used to assess positive and negative attitude and feelings about oneself. For the statistical analysis of the data, the IBM SPSS software was used with a significance index set at $p < 0.05$.

Results: 49 JIA patients and 60 healthy individuals in the control group (CG) participated in this research, with mean ages of 31.95 ± 8.82 vs. 30.47 ± 3.31 ($p = 0.234$), respectively. 66% of the participants were female. The CG showed higher values of height (169.43 ± 8.11 vs. 163.51 ± 9.4; $p = 0.001$), body weight (69.15 ± 6.8 vs. 63.14 ± 15.34; $p = 0.008$), percentage of total muscle mass (34.11 ± 7.03 vs. 30.02 ± 6.62; $p = 0.002$) and mean Rosenberg Self-Esteem Scale score index (20.70 ± 3, 48 vs. 17.61 ± 3.9; $p = 0.000$) when compared to JIA patients. The visceral fat rate was higher in the JIA group (5.59 ± 3.04 vs. 4.3 ± 1, 93; $p = 0.008$). In IPAQ, the CG obtained higher values in the items Active (11% vs. 0.9%; $p = 0.004$), Irregularly active A (9.1% vs. 1.8%; $p = 0.037$) and Irregularly active B (11.9% vs. 1.8%; $p = 0.008$). The JIA group had a higher value in the sedentary element (28.4% vs 14.6%; $p = 0.000$). Correlating the Rosenberg's Self-Esteem Scale and the levels of physical activity, the JIA group had a significant value in the active item A of the IPAQ (17.61 ± 3.96 vs. 1.96 ± 0.20; $p = 0.018$).

Conclusion: There is an important relationship between the level of physical activity, body composition and self-esteem of patients with JIA, which can lead to a loss in their quality of life.

PANLAR2021-ABS-1412

MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN RELATED TO COVID-19 IN HOSPITAL INFANTIL DE MÉXICO FEDERICO GÓMEZ

Hector Fernando F. Menchaca Aguayo, Sandra Rodriguez, Esther Mercedes, Enrique Faugier, and Pàmela Ramos.

Objectives: It was recently observed and described the association between a pediatric hyperinflammatory state and infection by SARS-CoV-2 which was named Multisystem inflammatory syndrome in children related to COVID-19 (PIMSTS) or Multisystem inflammatory syndrome (in children) MIS-C.

Methods: This is a medical records review, descriptive and observational study performed at the Hospital Infantil de Mexico Federico Gomez, a third-level children's hospital in Mexico City. The study includes all the cases that met criteria for PIMS-TS/MIS-C of the RCPCH, WHO, and/or CDC, that were diagnosed and treated between March 2020 and March 2021. We identified a total of 41 cases. We aimed our study at describing the clinical features, epidemiologic characteristics, management, and prognosis.

Results: The depicted tables 1 and 2 describe the demographics of our studied population. The highest incidence was seen in previously healthy, school-aged children. No differences were noted based on sex. In 50% of the cases, there was history of exposure to COVID-19. 7.3% of patients had an associated comorbidity. The SARS-CoV2 was isolated from CSF in one patient with PIMS. There were no documented cases of macrophage activation syndrome (MAS). While coagulopathy was observed, there were no cases of disseminated intravascular coagulation (DIC). These results are consistent with the results reported by Hoste L et al. Eur J Pediatr. 2021.

Conclusion: The present study depicts the experience of our institution with the new nosological entity called PIMS. The effectiveness of steroids and gammaglobulin in lieu of biologic therapy as part of these patients management,

Table 1.

Age (3 m – 17 y)	9 (10 – 11 y)	22%
Sex	Female 21, Male 20	F: 51%, M:49%
Fever	41	100 %
Mucocutaneous inflammation signs	26	63%
Hypotension or shcok	28	68%
Features of myocardial dysfunction, pericarditis, valvulitis, or coronary abnormalities (including ECHO findings)	13	32%
Evidence of coagulopathy (elevated D-dimers)	37	90%
Acute gastrointestinal problems (diarrhea, vomiting, or abdominal pain)	37	90%
Elevated markers of inflammation (ESR, CRP, or procalcitonin)	33	80%
Positive SARS-CoV-2 RT-PCR	13	32%
Positive SARS-CoV-2 Ig G	17	41%
Contact with patients with COVID-19	22	54%
Previously healthy	38	93%
Obesity	8	20%
PIMS-TS/MIS-C	40	98%
kawasaki disease (KD)	1	2 %
PIMS-TS/MIS-C and KD	6	15%

Table 2.

Intravenous immunoglobulins (IVIG)	27	66%
Corticosteroids	37	90 %
IVIG/ Corticosteroids	27	66%
Intensive Care Admission	24	58%
Days of hospitalization ≤ 7 days >7 days- 14 days > 14 days	 22 14 5	 54 % 34% 12%
Mortality	0	0 %

and the predominance of previously healthy patients without significant comorbidities probably account for the fact that no deaths occurred among them.

References:

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PANLAR2021-ABS-1107

CRITERIA VALIDATION IN PEDIATRIC BEHCET DISEASE

Marina Idalia De La Cera Rodríguez, Ninoska De la Rosa, Hector Menchaca Aguayo, Esther Mercedes Perez, Pamela Ramos Tiñini, and Sandra Rodríguez Aguayo. *Enrique Faugier Fuentes and Hospital Infantil de México Federico Gómez.*

Objectives: To compare the applicability of the clinical criteria using a clinical case of Behcet Disease (BD).

Methods: Applicability of the 1992 International Study Group (ISG) criteria, 2006 International Criteria for Behcet´s Disease (ICBD) and 2015 classification criteria consensus for pediatric Behcet´s disease (PEDBD) in a pediatric patient

Results: In 1992 the International Study Group (ISG) presented a set of criteria. In 2006, the International Criteria for Behcet's Disease (ICBD) were created. In 2015, the consensus classification criteria for Pediatric Behcet Disease (PEDBD) were established for the first time.

According to the ISG criteria, oral aphthosis is the mandatory criterion; additionally, the patient must present at least two of the following: genital aphthosis, skin manifestations, ocular manifestations and a positive pathergy test. The ICBD criteria require a score greater than 4 points, of which two points are awarded for: oral aphthosis, genital aphthosis, ocular manifestations and one point for cutaneous and vascular manifestations, respectively; in addition to adding to the pathergy test as an optional criterion. The 2015 PEDBD criteria suggest a group of criteria in which all the criteria have the same diagnostic weight and the pathergy test is not included. Classifying BD in the presence of three of the following six criteria: oral aphthosis, genital aphthosis, skin manifestations, neurological involvement, ocular manifestations, and vascular manifestations.

In the pediatric population, more than 80% of patients do not fully meet the diagnostic criteria, despite having the disease. Other differences include a higher frequency of neurological and gastrointestinal involvement, and a lower frequency of ocular manifestations. As a result of all these factors, pediatric BD differs in its presentation, to document the diagnosis with the applicable criteria in adults. Consequently, the application of criteria based on studies of adults, on many occasions, restricts the diagnosis of this pathology in the pediatric population.

	ISG 1992	ICBD 2006	PEDBD 2015	CONTROL PATIENT
ORAL APHTOSIS	*	*	*	*
GENITAL APHTOSIS	*	*	*	*
CUTANEOUS MANIFESTATIONS	*	*	*	*
PATHERGY TEST	*	Opcional		
OCULAR MANIFESTATIONS	*	*	*	
NEUROLOGICALL INVOLVEMENT		*	*	*
VASCULAR MANIFESTATIONS		*	*	
CONTROL PATIENT AT 12 YEARS	2 pts NO DX	3 PTS NO DX	3 PTS SI DX	
CONTROL PATIENT AT 16 YEARS	3 pts SI DX	5 pts SI DX	4 pts SI DX	

Conclusion: BD tends to have a long and relapsing course. An early age of onset and male gender are indicators of a prolonged disease course. The application of criteria based on studies of adults, on many occasions limits the diagnosis of this pathology in the pediatric population. It is therefore necessary to validate the PEDBD diagnostic criteria and apply them, for the integration of an early diagnosis and timely therapeutic intervention.

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PANLAR2021-ABS-1111

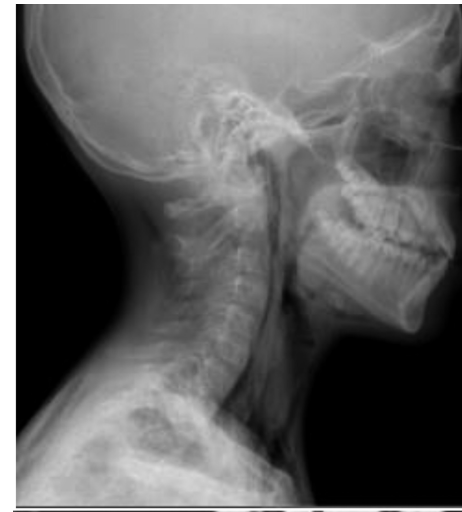
PANCREATITIS AND SPONTANEOUS PNEUMOMEDIASTINUM IN JUVENILE DERMATOMYOSITIS: A RARE CLINICAL PRESENTATION

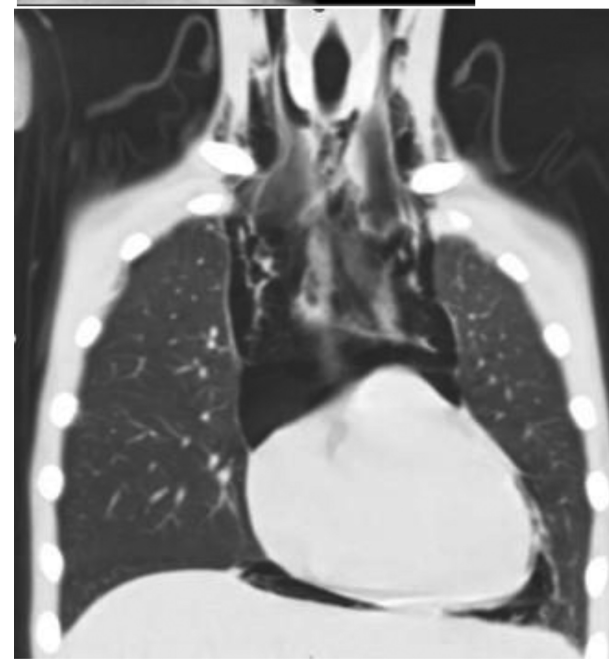
Sandra Rodríguez Aguayo[1], Marina Idalia De La Cera Rodríguez, Ninoska Linne De La Rosa Encarnación, Pamela Patricia Ramos Tiñini, Esther Rosalía Mercedes Pérez, Héctor Fernando Menchaca Aguayo, and Enrique Faugier Fuentes[1]. [1]*Reumatología, Hospital Infantil de México Federico Gómez, Ciudad de México, México.*

Objectives: The aim of this study is to present a case of a pediatric patient with diagnosis of JDM associated with pancreatitis and spontaneous pneumomediastinum.

Methods: We report the case of a JDM patient associated to pancreatitis and pneumomediastinum. We performed a systematic search in PUBMED using the following terms individually or in association: Juvenile dermatomyositis < >pneumomediastinum < > pancreatitis < > severe abdominal manifestations.

Results: A previously healthy 11-year-old boy, presented with complaints of abdominal pain, weight loss, asthenia, anorexia, arthralgia and muscle weakness. On examination, heliotrope erythema, shawl and V sign, Gottron's papules, and decreased muscle strength with a CMAS of 23 points were documented. Elevated levels of muscle enzymes and blood lipase that exceeded three times the upper limit were presented. In addition, ANA presented a homogeneous pattern 1:640 but myositis-specific antibodies could not be detected. MRI showed bilateral hyperintensity in T2/STIR sequences at the level of quadriceps, femoral and lateral vastus muscles. Pancreatitis and JDM diagnosis were established. Patient deteriorated with pain and increased cervical volume and subcutaneous cellular emphysema. CT reported pneumomediastinum extended to the neck and chest wall with bilateral pneumothorax. He received pulses of methylprednisolone at 30 mg/kg/dose and cyclophosphamide 750 mg/m2 monthly with adequate response.





Conclusion: It is important to consider pancreatitis in patients with juvenile dermatomyositis who develop severe and / or sustained abdominal pain, as well as pneumomediastinum in patients with pulmonary involvement. Urgent evaluation and aggressive early treatment must be stablished to improve outcome.

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PANLAR2021-ABS-1131

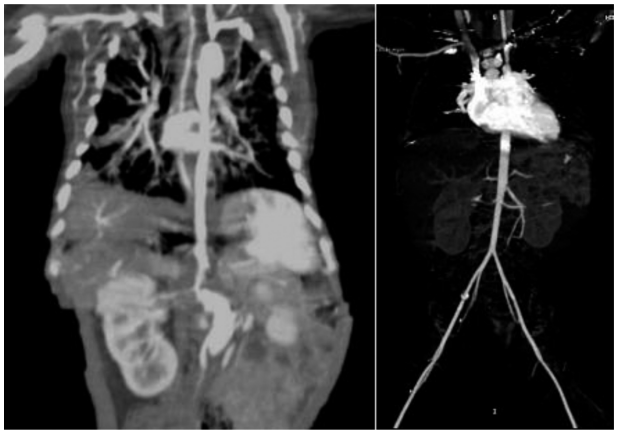
TAKAYASU ARTERITIS: TREATMENT IN A NEW BORN AND CLINICAL EVOLUTION, CASE REPORT

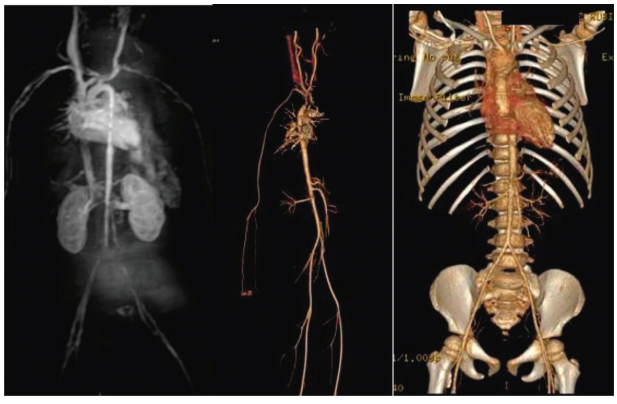
Melisa Rivera and Gabriel Vega Cornejo.

Objectives: To describe a rare clinical case of a patient diagnosed with Takayasu Arteritis within a few days of birth, the post diagnosis course and the treatment received.

Methods: Describe a clinical case of a patient with Takayasu Arteritis diagnosed in 2015, the clinical course and treatment received. Data obtained from available medical records.

Results: The Diagnosis of Takayasu arteritis in newborn patients is extremely rare; reported cases have exhibited poor prognosis for life. In this case the patient was resistant to traditional treatment so intravenous immunoglobulin, which is not considered a standard treatment in these cases was used with clinical improvement. Her disease course over 5 years is described, including the important finding that when patient discontinued her treatment she presented a relapse with stenosis of the iliac artery, supra-aortic trunks and infra-renal area.





Conclusion: The management of Takayasu arteritis should be individualized by assessing the risks and benefits of each of the therapeutic options, as well as to know the mechanism of action of each of the medicines that can help us in order to reduce mortality and improve prognosis.

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PANLAR2021-ABS-1402

BIRTH MONTH IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS IN GUADALAJARA, JALISCO, MEXICO

Melisa Rivera, Blanca Frisia Morales López, Katia Daniela Rodriguez Cobian, Gabriel Vega Cornejo, and Mario Salgado Barajas.

Objectives: To determine the birth month in patients with juvenile idiopathic Arthritis (JIA). To identify seasonal patterns in these patients.

Methods: We reviewed the medical records of patients being cared for at a pediatric rheumatology center in Guadalajara, Jalisco. The records were from 2016 to 2021 and the information we obtained for this study was the diagnosis specifically the subtype of JIA, sex, age of first diagnosis and date of birth.

Results: A total sample of 65 patients who met criteria for the diagnosis of JIA was obtained. Most of the patients were female 43 (66%). Diagnosis occurred between the ages of 1 and 16 years, being the mean 8 years (SD = 4 years). As for the birth month, cases were reported in all months of the year, however more patients had been borne in December (13.8%) followed by August (10.8%); the month in which fewer patients were born was in July (3.2%). These data are shown in Table 1.

Mes de nacimiento en pacientes con AIJ

		Frecuencia	Porcentaje
Mes de nacimiento	ENERO	6	9.2
	FEBRERO	6	9.2
	MARZO	4	6.2
	ABRIL	4	6.2
	MAYO	6	9.2
	JUNIO	6	9.2
	JULIO	2	3.1
	AGOSTO	7	10.8
	SEPTIEMBRE	5	7.7
	OCTUBRE	5	7.7
	NOVIEMBRE	4	6.2
	DICIEMBRE	9	13.8
	Total	64	98.5

Conclusion: JIA may be associated with the birth month, just like it occurs in other autoimmune diseases; however, it is necessary to study a larger sample of patients to confirm this.

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PANLAR2021-ABS-1295

PLASMAPHERESIS THERAPEUTIC EFFECT IN REFRACTORY KAWASAKI DISEASE

Esther Mercedes Pérez, Marina De La Cera, Ninoska De la Rosa, Hector Menchaca, Pamela Ramos, Sandra Rodriguez, and Enrique Faugier.

Objectives: To describe the therapeutic effect of plasmapheresis in refractory Kawasaki disease.

Methods: Description of a clinical case and review of the literature.

Results: Infant younger than 7 months, previously healthy, with diagnosis of refractory Kawasaki. Harada 6 points. Did not respond to two doses of intravenous immunoglobulin, three boluses of methylprednisolone, infliximab. Persisted with elevated C-reactive protein 3, thrombocytosis, increased aneurysms. Refractory to cyclophosphamide, azathioprine; in addition to second regimen of 3 boluses of methylprednisolone. When remission was not achieved, treatment was escalated to 3 sessions of plasmapheresis. Subsequent evolution was favorable.

Conclusion: Therapeutic management followed the AHA 2017, SHARE 2019 and Japanese 2020 guidelines for refractory Kawasaki. Given the evidence of persistent inflammatory activity documented by the progressive increase of acute phase reactants and aneurysm size, it was decided to use azathioprine, cyclophosphamide for being medium caliber vasculitis and giving long-term therapeutic effect. Involvement in other blood vessels was ruled out by CT angiography. To immediately stop the inflammatory effect, it was decided to use plasmapheresis. This therapeutic procedure has been described as a therapeutic option in refractory Kawasaki and other autoimmune diseases to stop the inflammatory process immediately, obtaining satisfactory results. Individualized therapeutic decision taken with the experience of the medical staff and accessibility of hospital resources. Situation referred to in the literature. The present case demonstrates the efficacy of plasmapheresis in refractory Kawasaki as a therapeutic option.

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PANLAR2021-ABS-1294

PEDIATRIC MULTISYSTEMIC INFLAMMATORY SYNDROME WITH NEUROLOGICAL INVOLVEMENT DUE TO SARS-COV-2

Ninoska De La Rosa Encarnación, Marina De la Cera, Hector Menchaca, Esther Mercedes Perez, Pamela Ramos, Enrique Faugier Fuentes, and Sandra Rodriguez Aguayo. *Reumatología, Hospital Infantil de México Federico Gómez, Ciudad de México, México.*

Objectives: To describe the case of a patient with pediatric multisystemic inflammatory syndrome with neurological compromise due to SARS-COV-2.

Methods: Descriptive and observational case. Data obtained from the medical records.

Results: 4-month-old girl. Epidemiological contact: maternal grandfather with COVID-19 4 weeks previously. Clinical history: 5-day fever (40 ° C), irritability, sporadic cough, generalized maculopapular rash, non-suppurative conjunctivitis, edema of the hands and feet. On admission irritable, drowsy, bulging anterior fontanelle, tachycardia, bulging pulses, flash capillary filling. He required oxygen, crystalloid loads, and admission to intensive care. It was integrated (PIMS) and meningoencephalitis. Cerebrospinal fluid (CSF): protein spinal cord and leukocytosis, SARS COV2 positive in CSF and serum. Echocardiogram, chest X-ray film and head tomography without abnormalities. Treatment: gamma globulin (2 g/kg/d), methylprednisolone (2 mg/kg/d) and enoxaparin (1 mg/kg/d). Discharged without sequelae 6 days after hospitalization. Some laboratory results are shown in Table 1.

21.03.2021	22.03.2021	24.07.2020	29.07.2020
Hematic Biometry Leukocytes 9,900 Neutrophils 3,960 Lymphocytes 5,450 Hemoglobin 9,7 Hematocrit 29.5% Platelets 57,000	Troponins 3.7 Pro- BNP 122.7 **Ferritin 522**	**Hematic Biometry** Leukocytes 14,600 Neutrophils 7,450 Lymphocytes 5,845 Hemoglobin 8.9 Hematocrit 26.9% Platelets 151,000	
Dímero D 2875 TP 12.8 INR 1.12 TTPa 25.1 Fibrinogen 398.5	**ECO:** heart without structural defect, with adequate biventricular function. Coronary arteries without aneurysm	**Culture LCR** Negative **Blood cultures** Negative	**PCR Cytomegalovirus, Epstein Barr, Herpes virus 6, 7 and 8.** Negative
VSG 22 mm/hr **PCR 4.26** **PCT** 1.21	**EKG:** sinus rhythm, heart rate 125 beats per minute. PR, QRS, QT without alterations.	**SARS-CoV2 viral load in CSF:** Positive (3400 copies of RNAviral / ml)	
CSF Cytochemical Protein 105 Glucose 45 Leukocytes 121 Erythrocytes 66 PMN 8% Mononuclear 92%	**PCR SARS-CoV2** Protein N 37.38 GEN RP 24.21 ORF -1 38.8	**SARS-CoV2 Plasma viral load:** Positive (35,685 copies of viral RNA / ml)	

Conclusion: We report the exceptional case of SARS-COV-2 meningoencephalitis with positive PCR in the CSF.

Comprehensive evaluation of the patient with neurological compromise due to SARS-COVS-2 must be thorough. PIMS is associated with lethargy and drowsiness. In the present case, the relevant clinical data was irritability. A comprehensive approach to the patient is imperative given the diversity of the infectious behavior of sars-cov-2

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PANLAR2021-ABS-1431

CASE REPORT PEDIATRIC PATIENT WITH POLYMYOSITIS DIAGNOSIS, IN A THIRD LEVEL HOSPITAL

Alejandra Silva Hernandez and Luis Alberto Aparicio Vera.

Objectives: Healthy 13-year-old male, previously healthy who began with weakness of 3-wweks in duration and decreased sensitivity in the upper and lower extremities and cervical region; dermatosis of two months duration in the facial region with poorly defined edges and dark coloration, not elevated; daily fever (39.3C) by 20 days, nocturnal; decreased trophism, generalized muscle weakness, predominantly in the thoracic limbs, proximal atrophy, distal hypertrophy, and in the four extremities with limitation in the mobility arches reaching only 50% of the mobility range, with a Daniel´s Scale 3/5.

Methods: Autoimmune myopathy is suspected and a clinical approach is initiated; She met the EULAR/ACR criteria: age under 18 years, symmetric, progressive, proximal muscle weakness in upper and lower extremities, with weakness in cervical flexors, Gottron's sign, esophageal dysmotility, paraclinical (elevated CPK: 30510 U/L, LDH: 2984 U/L, AST: 1488 U/L, ALT: 373 U/L), with Magnetic Resonance Imaging (MRI) in T2 and STIR sequences; increased signal intensity at muscular level in both extremities appreciating edema sites towards musculotendinous attachments, suggesting inflammatory myositis.

The muscle biopsy reported moderate to intense atrophy, infiltration by lymphocytes and macrophages; endomysium and perimysium with moderate to intense edema; compatible with polymyositis; sural nerve biopsy was negative for fibrosis.

Results: The patient´s evolution was rapidly progressive and torpid, despite treatment with methylprednisolone (1grday) for 7 days; however the patient presents refractory disease, so we used immunosuppressive therapy with specific CD20 monoclonal antibody (RITUXIMAB); ventilatory and hemodynamic deterioration ensued the patient requiring aminergic support for 19 days, and antibiotics with carbapenemic (meropenem) and glycopeptide (vancomycin); despite all these measures, the patient died.

Conclusion: Autoimmune myopathies are infrequent in childhood; an annual incidence of 2 to 4 cases per million children has been reported. This case reports the course of a clinical case of juvenile polymyositis (JPM), which is reported less frequently occurring in only 3-6% of all childhood idiopathic inflammatory myopathies.

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PANLAR2021-ABS-1432

INITIAL DOSES AND TAPERING PLAN OF GLUCOCORTICOID TREATMENT IN JUVENILE LUPUS ERYTHEMATOSUS IN A PEDIATRIC CENTER

Maria Victoria Arispe Requis[1], Gabriela Necul[1], Marina Carrillo[1], Vanesa Cervetto[1], and Alejandra Pringe[1]. [1]*Hospital de Niños Pedro de Elizalde, Buenos Aires, Argentina.*

Objectives: To describe the use and tapering of GCs in jLES patients in the Rheumatology Section of a pediatric hospital, and if it concurs with the one proposed in the mentioned section.

Methods: Descriptive, observational study, data gathered from clinical records, between January 2009-2019. Inclusion criteria: patients under 18 years of age with jLES (SLICC classification), with or without organ damage (hematological, renal or neurologic involvement). All patients treated with GCs, with favorable response to initial treatment, which did not present flares during the duration of the study. The GCs dose was registered at 1st visit, and at months 3, 6, 9, 12 and 18 of follow-up. Suggested tapering of GCs in the Rheumatology Section: if good response, taper 50% initial dose at month 3, and achieve minimum dose (less than 0,1 mg/kg/day) or discontinuation at 6 months since the initial indication. End of follow-up: discontinuation of GC treatment or 18 months of follow-up. Definitions: Favorable response to treatment: improvement: SLEDAI 3 or more point lower than initial SLEDAI. Appropriate follow-up and treatment: clinical visits, type of treatment and doses according to treating physician. Means and SD were used for continuous variables, and absolute numbers for categorical variables.

Results: 31 patients were included, 26 females. Mean age at diagnosis 13,4 years (SD+/-2.5años). Median of initial SLEDAI: 16 (RIC 8-25). Mean initial dose of GCs: 45.8 mg/day (SD +/-18.03). 22/31 patients also received another immunosuppressive drug at the beginning of their disease. Initial manifestations: hematological involvement 20/31 (64.5%); renal 18(58%); neurological 4(12%); other (articular, skin, serositis) 26(83%). Regarding the proposed management of GCs, at 3 months since disease debut, 4/31 had tapered 50% or more of initial dose, with SLEDAI =3; and at 6 months 3/31 had decreased 90% or more of the initial dose, with SLEDAI = 1. During the period studied, no patient achieved total discontinuation of GCs.

Conclusion: The tapering of GCs described in this cohort show that the doses used in clinical practice differ from those proposed in the Rheumatology Section in question. Longitudinal studies including other variables not related to disease activity would be necessary to explain this dissociation, and to provide evidence for the development of guidelines regarding glucocorticoids treatment in jLES.

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PANLAR2021-ABS-1389

RAG 1 GENE MUTATION: COMBINED IMMUNODEFICIENCY AND AUTOIMMUNITY

Pamela Patricia P. Ramos Tiñini, Hector Fernando Menchaca Aguayo, Esther Rosalía Mercedes Perez, Sandra Rodriguez Aguayo, Marina Idalia De la Cera Rodriguez, Ninoska Linne De la Rosa Encarnación, and Enrique Faugier Fuentes

Objectives: To describe the case of a patient with overlap: SLE and scleroderma; and detection of the RAG 1 gene mutation.

Methods: Descriptive and observational case. Data obtained from the clinical record.

Results: A 4-year-old girl with a history of chronic dermatosis beginning in the first year of life, refractory to multiple treatments. Referred to the institution with a diagnosis of vitiligo. Skin biopsy: morphea variety scleroderma. Methotrexate started. He completed the immunological approach, integrating overlap syndrome by criteria of generalized scleroderma and systemic lupus erythematosus (SLE). Pulmonary high-resolution computed tomography (HRCT) (figure 1) showed cicatricial atelectasis in the apical-posterior, lingular, and posterior basal segments; thickening of the interlobular interstitium, cylindrical bronchiectasis. Lung scan: left lung hypoperfusion. DMARD therapy was modified to mycophenolate mofetil, corticosteroid, and cyclophosphamide. Subsequently, she presented gastrointestinal symptoms and pulmonary HRCT without improvement, for which tocilizumab therapy was escalated. With the approach for PID by the association of autoimmune diseases she met the European Society for Immunodeficiencies (ESID) criteria for combined immunodeficiency. He started monthly

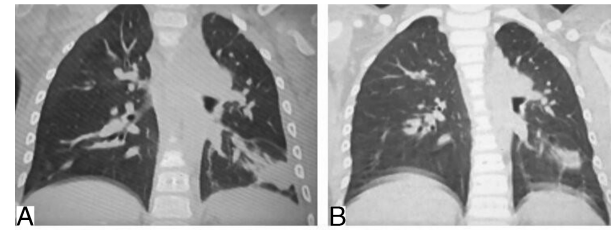

FIGURE 1: HCRT imagings lung. (A): before treatment. (B): after of 10° tocilizumab

immunoglobulin replacement therapy. Exome sequencing: RAG 1 gene mutation. Currently under the protocol for allogeneic cell transplantation.
Conclusion: The particularity of the case of an autoimmunity association is described, manifested with an overlap of SLE and scleroderma; with combined immunodeficiency; with detection of the RAG 1 gene mutation and vitiligo that belongs to the spectrum of genetic alteration. The patient has criteria for allogeneic cell transplantation due to disease association, refractoriness to treatment, age, and pulmonary involvement. The exceptional association has not been described in the literature. The meticulous clinical and paraclinical approach documented the association of overlapping autoimmune diseases with immunodeficiency, which meets the criteria or allogeneic cell transplantation.
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PANLAR2021-ABS-1408

METHOTREXATE-INDUCED PANCYTOPENIA IN A PEDIATRIC PATIENT WITH OVERLAPPING DISEASE: CASE REPORT

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Objectives: Methotrexate is a drug used in both oncology and rheumatology, that may be related to various adverse drug effects. The objective of this report is to describe a case of methotrexate (MTX)-induced pancytopenia in a pediatric patient with an overlap disease.
Methods: Case report.
Results: 12-year-old adolescent girl, with overlapping disease (dermatomyositis + chronic arthritis) for one year, using corticosteroids and subcutaneous MTX associated with folic acid. The patient missed their clinical outpatient follow-up and discontinued her medications for four months, returning with complaints of dysphagia and reflux. The initial evaluations showed velopharyngeal insufficiency and moderate stasis with aspiration after swallowing food. The etiological investigation excluded a central cause for dysphagia, confirming an active inflammatory myopathy as the cause. Laboratory tests showed increased muscle enzymes; a complete blood count showed no cytopenias. Enteral feeding was initiated and pulse therapy with methylprednisolone and subcutaneous methotrexate at a dose of 25 mg / week and replacement of folic acid was started. One month after the reintroduction of MTX, the patient developed pancytopenia; investigations ruled out lymphoproliferative diseases and juvenile systemic lupus erythematosus. MTX was discontinued due to suspected secondary myelotoxicity. One week after the drug was discontinued, the patient presented a reversal of pancytopenia.
Conclusion: Bone marrow is one of the tissues most susceptible to the cytotoxic effects of MTX. Pancytopenia secondary to MTX is rare, with an incidence of 3%. In some cases, however, the adverse effect can be serious and irreversible, however, in most cases they are transient with rapid recovery after discontinuation. Some risk factors associated with pancytopenia are renal dysfunction, hypoalbuminemia, low folate levels, infections, old age, concomitant use of multiple drugs, lack of folic acid supplementation, overdosing and malnutrition. Among the factors associated with MTX myelotoxicity, malnutrition resulting from low caloric intake due to the patient's muscular impairment may be the cause of bone marrow suppression in this case. Periodic laboratory evaluations are recommended every 4 or 8 weeks, as well as the concomitant administration of folic acid to decrease toxicity.
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PANLAR2021-ABS-1226

KAWASAKI DISEASE WITH SYSTEMIC ANEURYSMS

Hector Fernando F. Menchaca Aguayo, Richard Loor, Pamela Ramos, Ninoska De la Rosa, Esther Mercedes, Marina De la Cera, Sergio Patrón, and Enrique Faugier Fuentes.
Objectives: Describe the case of a patient with Kawasaki disease who developed multiple aneurysms
Methods: Descriptive and observational case. Data obtained from the medical records.
Results: 2-month-old infant girl, previously healthy who presented with 14 days of fever, up to 38.5 C, associated with irritability and soft stools. Her physical exam was notable for the presence of a meso-systolic murmur, and otherwise it was unremarkable. Her CBC was notable for leukocytosis, neutrophilia, and thrombocytosis. UA was normal. Infectious workup, which included cultures of blood, urine, stools, and CSF, was normal. In addition, viral serology, SARS-CoV-2, and viral panel were all negative. She was started on ceftriaxone and amikacin. Due to persistent fever, she was switched to cefepime, and fever resolved on her 11th day of hospitalization. An echo was ordered due to a CRP of 14.2 and thrombocytosis of >1,000,000 (Table 1) along with an EKG. She was started on IVIG (2 g/kg/d), pulse IV methylprednisolone (30 mg/kg/d) for 3 days, ASA (50 mg/kg/d), clopidogrel (0.3 mg/kg/d), and enoxaparin (1.5 mg/kg/d). Angiogram remarkable for extracoronary aneurysms (Figure 1).

TABLE 1. Echocardiogram	
Distal right coronary artery	3.7 mm (Z+ 10.9)
Medial right coronary artery	4.9 mm (Z+ 13.9)
Proximal right coronary artery	6.1 mm (Z+ 16.78)
Left coronary artery	3.6 mm (Z+7.81)

Conclusion: Even though extracoronary aneurysms have been reported in KD, these are rare. This case highlights the importance of a prompt diagnosis to avoid complications and sequelae and the comprehensive evaluation looking for extracoronary involvement of the arteries looking for aneurysms. We suggest the use of an angiogram as part of the evaluation in all patients with KD. We would like to raise awareness that KD it's a medium-size vasculitis that can be associated with systemic involvement.

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PANLAR2021-ABS-1332

MACROPHAGE ACTIVATION SYNDROME POST COVID-19 IN AN ADOLESCENT WITH POLYARTICULAR JUVENILE IDIOPATHIC ARTHRITHIS PREVIOUSLY TREATED WITH ABATACEPT

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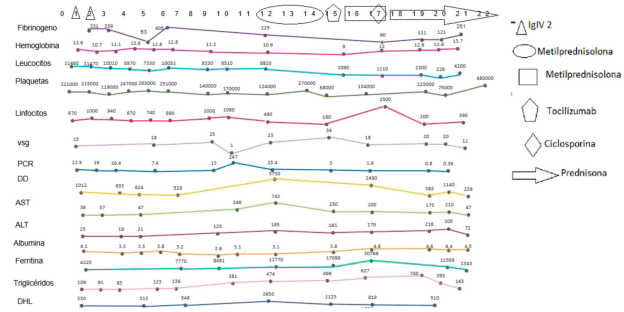
Objectives: Report of a teenage girl with JIA who has MAS triggered by COVID-19, with favorable evolution to corticosteroid treatment, IVIG, tocilizumab and ciclosporin.

Methods: Provide a description of the case in time, treatment interventions and post-treatment clinical response.

Results: A 15 year old Mexican girl, with polyarticular JIA, RF(-), ANA(+); in remission with abatacept. She had 8 days with polyarthralgia, pruriginous rash, in lower limbs, fever up to 39 °C, irritability, diarrhea, tachycardia, CRP 22.5 mg/dL, erythrocyte sedimentation rate15mm/hr, lymphopenia, creatinine 1.6 mg/dL, TPT 98.5 sec, D-dimer 1012 ng/mL, ferritin 4225 ng/mL/, LDH 330 U/L; however CRP SARS COV2 test negative, but she was living in a town with high COVID 19 incidence, so she met the MIS-C criteria. Initial treatment: IVIG 2grkgdo. Day 2: decrease StO2 88%, increasing respiratory effort, pulmonary CT with bilateral infiltrates and pleural effusion. Persistent fever for 7 days, up to 39 °C. Rash persist in eyelids until day 30th. On the 8th day of hospitalization, she presented hepatalgia with vomiting, US reports chronic acute cholecystitis, liver inflammatory changes and splenomegaly; increase ALT 125UI/L, AST 346UI/L, alkaline phosphatase 751 U/L, albumin 2.6 g/dL, Hb 9.5 g/dL, platelets 55 x 10^9/L, CRP 13 mg/dL, D dimer 5285 ng/mL, ferritin 7070 ng/mL, LDH 548 U/L; bone marrow aspirate negative for hemophagocytes; 1gr methylprednisolone was started for 3 days, without improvement, increasing ferritin to 17 099 ng/mL, D dimer 37 300 ng/mL, LDH 2050 U/L, triglicerides 498 mg/dl, Hb 8.5 g/dL, platelets 68 x 10^9/L, AST 200 U/L, ALT 179 U/L, fibrinogen 60 mg/dL, meeting Ravelli MAS criteria. These data are shown in Table 1 and Figure 1. Prednisone 60 mg/day was continued and a single dose SC tocilizumab and cyclosporine

Table 1. Biomarkers evolution

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 9	DAY 10	DAY 12	DAY 15	DAY 17	DAY 19	DAY 20	DAY 21
WBC 10^3/L	11.460	11.470	10.010	8.870	7.330	10.052		8.330	8.510	8.820	2.090	1.110	2.300	2.260	4.200
Neutrophils $10^{3/L}$	10090	9540	8222	7520	5840	92	50	7190		3226	1570	3111	3250	3250	4200
Lymphocytes $10^{3/L}$	670	1000	940	670	740	690		1000	1080	440	180	2500	200	290	590
Hb g/dL	12.6	10.7	11.1	13.6	12.8	12.8		11.2		10.6	9	12	12.8	12.8	13.7
Hto	37.2	30.9	31.6	38.1	35.3	38		32.3		30.7	26.3	34	37	37	41
Platelets $10^{3/uL}$	227000	215000	199000	247000	263000	251000		140000	170000	450000	280000	700000	610000	700000	860000
AST UI/L	36			37	47				346	743	250	200	175	210	47
ALT UI/L	25			18	21				125	195	161	179	216	300	72
Albumin g/dL	4.1			3.3	3.5	3.8	3.2	2.6	3.1	3.1	3.8	4.6	4.6	4.4	4.5
Direct bilirrubin	0.2			0.1	0.2				0.8	2.3	0.6	0.7	0.5	0.4	0.5
Indirect Bilirrubin	0.3			0.1	0.1				0.3	1.0	0.3	0.5	0.4	0.4	0.7
CRP mg/dL	22.5	19	16.4		7.4			13	247	23.4	5	1.9	0.8	0.36	0
Ferritin ng/mL	4225						70	8491		1277	1709	3076		1155	1343
D Dimer ng/mL	1012		733		624		52			3730		2490	583	1190	258
Fibrinogen mg/dL	-	331	339		63	405				225		60	111	121	251
TP sec	15.2	16	15		13.8	14.4	13			14.2		14.1	12.6	12.9	11.8
TPT sec	98	81.7	80.6		84	87	72			98		55.7	56	35	49.9
LDH U/L	330				313		54			2650	1123	819		510	
VSG mm/hr	15				18			25	1	23	34	18	20	20	11
Triglicerids mg/dL	109	91	82		123	156			381	474	498	627	740	393	143
Cholesterol mg/dL	102	83	104		85	97			101	147	157	303	200	202	214
CK										104					
CKMB	16									44					



5 mg/kg/day were administered, with improvement. At a follow-up appointment patient presented rash on eyelids and cheeks, mild pain in the left hip, synovitis of both knees and cyclosporine A was withdrawn; at that time IgG SARS COV2 antibody was positive. At the present she in remission and continues with tocilizumab as part of the treatment for her JIA.

Conclusion: As occurred in our patient, MAS is present in COVID-19-associated pneumonia. COVID-19-related hyperinflammation shares its clinical features with MAS. Hypercytokinemia, increased serum levels of ferritin, CRP, and D-dimer indicate the development of MAS-like severe inflammation and fibrinolysis in COVID-19. Hyperferritinemia is a hallmark of COVID-19 pneumonia; but lower than in MAS, in which it often exceeds 10,000ng/ml.

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PANLAR2021-ABS-1223

PREDICTORS OF CLINICALLY PERSISTENT ACTIVE DISEASE IN RHEUMATOID ARTHRITIS PATIENTS: RESULTS FROM 4 YEARS OF FOLLOW UP OF A REAL-WORLD COHORT

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Objectives: Clinical remission is the current goal in the management of rheumatoid arthritis (RA); however, in clinical practice this can be difficult to achieve, especially in Latin-America (1,2). The objective of this study was to determine the factors predictive of clinically persistent active disease in a cohort of RA patients.

Methods: A longitudinal real setting RA cohort study (Almenara cohort) followed between January 2016 and 2020. RA was defined using the 2010 ACR/EULAR criteria. Overlap syndromes (except Sjogren) were excluded. Predictors examined at baseline and at each subsequent visit were: gender, age at diagnosis, disease duration, socioeconomic status (SES) by the Graffar method, tobacco use, anti-cyclic citrullinated peptide antibodies (anti-CCP), rheumatoid factor titer, disease activity (Simple Disease Activity Index: SDAI), disability (MDHAQ), health-related quality of life [SF-36, reported as physical component summary (PCS) and mental component summary (MCS)] measurements, glucocorticosteroids (GC, use and dose), b DMARDS/synthetic molecules and all immunosuppressive drugs including cDMARDs. A univariable model and a multivariable generalized estimating equation model were performed to determine predictors of clinically persistent active disease in each visit. All the potential predictors were evaluated in the same visit and disease activity (SDAI >3.3) was defined at the subsequent visit.

Results: Five hundred and fifty RA patients were included (2009 patient-years of follow-up); at baseline 91.8% (505) were women, mean age was 44.4(13.5) years. The SDAI was 28.8 (22.7) and only 94 (5.7%) patients were in remission and the rest was in persistent disease activity, MDHAQ was 0.9(0.6); PCS = 14

Table1. Predictors of persistent active disease in 550 patients of Rheumatoid Arthritis from the Almenara Cohort

	Univariable analysis		Multivariable analysis	
	OR	p value	OR	p value
Sociodemographic variables				
Male gender	1.27(0.85-1.89)	0.25		
Age at diagnosis	0.99(0.99-1.01)	0.83		
Disease duration	1.01(0.99-1.02)	0.10		
Socioeconomic status*				
Medium low/low	1.54(1.12-2.11)	0.01		
Medium	1.05(0.77-1.46)	0.73		
High	Ref.			
Tobacco use				
Current	1.05(0.46-2.42)	0.90		
Past	1.02(0.73-1.41)	0.92		
Never	Ref.			
Antibodies titers				
Rheumatoid factor	1.00(1.00-1.01)	0.06		
Anti-cyclic citrullinated peptide antibodies	1.00(1.00-1.00)	0.51		
Clinical features				
Active disease (SDAI)	**1.05(1.04-1.06)**	**<0.01**	**1.04(1.03-1.05)**	**<0.01**
MDHAQ	**2.66(2.08-3.41)**	**<0.01**	**1.41(1.09-1.83)**	**0.01**
SF36-PCS	**0.97(0.96-0.97)**	**<0.01**	**0.99(0.98-0.99)**	**<0.01**
SF36—MCS	0.97(0.96-0.98)	<0.01		
Treatment				
Glucocorticosteroids use	1.13 (1.03-1.25)	0.01		
Glucocorticosteroids dose	1.01(0.97-1.05)	0.59		
bDMARDs/synthetic molecules use (**)				
Current	0.80(0.53-1.19)	0.28		
Past	1.83(0.95-3.50)	0.07		
All Immunosuppressive drugs (***)				
Current	0.78 (0.57-1.07)	0.13		
Past	0.86(0.66-1.13)	0.28		

*(*) By the Graffar method, ** bDMARDs= biologic Disease-modifying antirheumatic drug (DMARDs). (***) bDMARDs, synthetic molecules and convectional DMARDs*

(9.1) and MCS = 37.7(17.5). Use of c/bDMARDs or synthetic molecules was 67.6% (372). In the multivariable analysis active disease in the previous visit OR = 1.04;1.03-1.05; p < 0.01), MDHAQ (OR = 1.41;1.09-1.83; p = 0.01) and PCS (OR = 0.99;0.98-0.99; p < 0.01) predicted clinically persistent active disease (Table 1).

Conclusion: Active disease, disability, and poor quality of life are predictors of clinically persistent active disease in RA patients.

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PANLAR2021-ABS-1249

PREDICTORS OF RESPONSE: BASELINE CHARACTERISTICS AND EARLY TREATMENT RESPONSES ASSOCIATED WITH ACHIEVEMENT OF REMISSION AND LOW DISEASE ACTIVITY AMONG UPADACITINIB-TREATED PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To identify baseline (BL) and post-BL characteristics that may predict remission (REM) or low disease activity (LDA) at 6 months in rheumatoid arthritis (RA) patients (pts) on upadacitinib 15 mg once daily (UPA-15).

Methods: Pts were randomized to UPA-15 as monotherapy in methotrexate (MTX)-naïve pts (SELECT-EARLY) or in combination with conventional synthetic (cs) DMARDs in pts with inadequate response (IR) to MTX (SELECT-COMPARE) or ≥ 1 tumor necrosis factor inhibitors (TNFis) (SELECT-BEYOND and SELECT-CHOICE). BL characteristics and Wk12 disease activity parameters with achievement of Clinical Disease Activity Index (CDAI) REM (≤2.8) or LDA (≤10) at Wk24 or -26 was assessed by concordance (C) statistics, or area under the receiver operator characteristic curve. C-index values and 95% confidence intervals were calculated using a univariate logistic regression model for: demographic and BL characteristics, Wk12 disease activity, and change from BL at Wk12. A multivariate logistic regression with stepwise model selection was also performed. Proportion of pts achieving Wk24/26 CDAI REM/LDA was stratified by ≥50% improvement from BL in swollen and/or tender joint count in 66/68 joints (SJC66/TJC68).

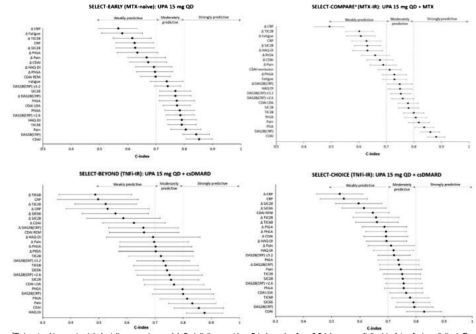
Results: Of 1377 pts across the 4 studies, 11.0–28.4% and 50.0–58.6% achieved CDAI REM and LDA, respectively (Table). BL characteristics were weakly predictive (C-index <0.70) of Wk24/26 CDAI REM (C-index 0.49–0.69) or LDA (Cindex 0.47–0.65), except BL Health Assessment Questionnaire-Disability Index in SELECT-BEYOND (C-index for CDAI REM, 0.73). Changes from BL in Wk12 disease activity were weakly or moderately predictive of Wk24/26 CDAI REM (Figure 1) or LDA. CDAI value at Wk12 was strongly predictive (C-index >0.80) of Wk24/26 CDAI REM or LDA. Disease Activity Score in 28 joints using CRP and pain at Wk12 were strongly predictive of Wk24/26 CDAI REM (except in SELECT-CHOICE). Physician's global assessment at Wk12 was the only common predictor in the multivariate regression models for CDAI REM/LDA at Wk 24/26 across the 4 studies. Greater proportion of pts achieving ≥50% improvement in SJC66 and TJC68 at Wk 12 achieved CDAI REM (16.5–37.8% vs 0–9.4%) or LDA (66.0–72.8% vs 20.9–35.7%) at Wk 24/26 than those who did not.

Table Achievement of CDAI LDA and REM at Wk 24/26[a]

	SELECT-EARLY	SELECT-COMPARE	SELECT-BEYOND	SELECT-CHOICE
Patient population	MTX-naïve	MTX-IR	TNFi-IR	TNFi-IR
Treatment	UPA 15 mg monotherapy (n=317)	UPA 15 mg + MTX (n=651)	UPA 15 mg + csDMARD (n=146)	UPA 15 mg + csDMARD (n=263)
Efficacy at Wk 24/26[a], n (%)				
CDAI REM (≤2.8)	90 (28.4)	150 (23.0)	16 (11.0)	60 (22.8)
CDAI LDA (≤10)	178 (56.2)	343 (52.7)	73 (50.0)	154 (58.6)

[a] Wk 26 for SELECT-COMPARE only

Figure Wk 12 predictors[a] for CDAI remission at Wk 24/26[b]



[a]Determined by a univariate logistic regression model. C-statistics provide a C-index value from 0.5 (chance prediction) to 1 (perfect prediction). Error bars indicate 95% CI. [b] Wk 26 for SELECT-COMPARE only.
CRP, C-reactive protein; DAS28(CRP), Disease Activity Score in 28 joints using C-reactive protein; HAQ-DI, Health Assessment Questionnaire-Disability Index; PhGA, Physician Global Assessment; PtGA, Patients Global Assessment; SJC28/66, swollen joint count in 28/66 joints; TJC28/68, tender joint count in 28/68 joints

Conclusion: BL characteristics did not strongly predict response to UPA, but composite disease activity scores at Wk12 predicted Wk24/26 REM/LDA with UPA15 across MTX-naïve, MTX-IR, and TNFi-IR pts. ≥50% improvement in SJC/TJC at Wk12 was also associated with Wk24/26 REM/LDA.

PANLAR2021-ABS-1424

FACTORS INFLUENCING DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS MONITORING ON A VIRTUAL SETTING DURING THE COVID PANDEMIC: A COHORT STUDY IN AN OUTPATIENT CENTER

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Objectives: The aim of this study is twofold: 1) to describe the clinical, functional and depressive symptoms of RA patients during the COVID-19 pandemic, and 2) to determine the factors associated with achieving remission or low disease activity in RA patients based on RAPID-3 score assessed on a virtual setting.

Methods: A medical records review cohort study was conducted. Patients were assessed remotely from September-2020 to March 2021. Self-administered questionnaires were completed by patients using an online platform evaluating disease activity, functionality and depressive symptoms in an outpatient clinic-based cohort. Disease activity was assessed using the RAPID-3 score. Functional status and depressive symptoms were assessed through the Health Assessment Questionnaire (HAQ) and the Patient Health Questionnaire (PHQ-9), which were self-administered by each patient through a web-based tool. A logistic regression analyses was done to identify determinants related to reaching remission or low disease activity in these RA patients.

Results: In total 607 patients were included, 78% women (n = 474) with a mean age of 51.8 (SD 13.4) years. Of them, 42.7% (n = 259) of all patients had completed the survey online, 33.4% had 2 registries, and 23.9% had more than 3 registries. Additionally, 54% (n = 327) of all patients assessed remotely were still working (employed). With regards to disease activity, the mean RAPID-3 score was 10.5 (SD 7.3), categorized in remission ≤3 (19.9%), low ≤6 (13.7%), moderate 6-12 (26.2%) and high disease activity ≥12 (40.0%). Considering functional status, the mean HAQ score was 0.92 (0.7) and functionality (defined as HAQ score ≤ 0.375 and HAQ score ≤ 1.5) was observed in on 28.8% (n = 174) and 78.3% (n = 475), respectively. Finally, the mean PHQ-9 was 5.4 (SD 5.5), categorized as minimum ≤4 (54.7%), mild 5-9 (24.9%), moderate 10-14 (11.2%) and severe ≥15 (9.2). Predictive factor for achieving remission or low disease activity based on RAPID-3, were the functional status assessed by HAQ (p = ≤0.001) and depressive symptoms assessed by the PHQ-9 (p = ≤0.001).

Conclusion: During the current pandemic there is a considerable frequency of disease activity and depressive symptoms in RA patients. Functional status (HAQ) and depressive symptoms (PHQ-9) were identified as determinants of achieving remission or low disease activity based on RAPID-3 score during this pandemic. The COVID-19 pandemic constitutes a critical challenge not only for RA patients but also for rheumatologists in terms of monitoring this condition.

PANLAR2021-ABS-1178

RHEUMATOID ARTHRITIS DIAGNOSIS AT THE PRIMARY LEVEL OF CARE

Pablo Herrera-Sandate, David Vega-Morales, Gabriel Figueroa-Parra, Brenda Vázquez-Fuentes, Mitzi Rojas Ávila, Hazel Badillo-Rodríguez, David Guzmán-de la Garza, and Dionicio Galarza-Delgado.

Objectives: To identify the most common signs and symptoms of patients with a yet-unknown RA diagnosis at their first medical appointment.

Methods: An observational, descriptive and medical records review study was performed using the electronic medical records of patients that had been recently diagnosed with RA and referred to a secondary level of care unit in Monterrey, Mexico. Clinical and demographic information was retrieved, including main symptoms, laboratory tests and treatment.

Results: In a total of 94 patients, 77 (82%) were women and the mean age was 47 years (SD ± 12.4). The average number of appointments before the referral to a secondary care unit was of 4.1 (SD ± 1.75) and the mean time of referral was 9.5 months (SD ± 5.9). All patients (100%) had arthralgia, of which, 95% had hand arthralgia. The second most common symptom was joint stiffness (81%). Non-steroidal anti-inflammatory drugs (NSAIDs) intake was reported in 95% of patients and the most common requested laboratory exam was rheumatoid factor (RF) (98%).

Conclusion: The RA patient diagnosis profile in the primary level of care is a 40 year-old woman with hand arthralgia, which will have RF measured and will be treated with NSAIDs for 9 months before being referred to a secondary level of care.

Reference:

1. Vidal-Bralo L, Perez-Pampin E, Regueiro C, Montes A, Varela R, Boveda MD, et al. Anti-carbamylated protein autoantibodies associated with mortality in Spanish rheumatoid arthritis patients. PLoS One. 2017;12: e0180144

PANLAR2021-ABS-1163

PHARMACOLOGICAL TREATMENT IN PATIENTS WITH HAND ARTHRALGIA

Pablo Herrera-Sandate, David Vega-Morales, Gabriel Figueroa-Parra, David Guzmán-de la Garza, Hazel Badillo Rodríguez, Brenda Vázquez-Fuentes, and Dionicio Galarza-Delgado.

Objectives: To determine the pharmacological treatment used for hand arthralgia at primary care.

Methods: Observational, descriptive study of patients with hand arthralgia recruited at two primary care centers in Monterrey, Mexico. Clinical information of treatment drug and regime duration was obtained from physical or electronic records.

Results: A total of 202 patients were included, of whom 165 (81.7%) were women, mean age was 50.55 years (SD ± 14.12). A total of 13 different drugs were recorded, acetaminophen being the most commonly employed in 129 (28.3%) patients for a period of 41.1 days. Celecoxib was employed in 67 (14.7%) patients for a total of 18.3 days. Diclofenac was administered in 47 (10.3%) patients for 41.9 days. Indomethacin was administered in 37 (8.13%) patients for 38.4 days. Sulindac was employed in 31 (6.8%) patients, with the longest timeline of administration of 49.4 days. An average of 2.17 nonsteroidal anti-inflammatory drugs (NSAIDs) were used per patient (Table 1).

Drugs	Frequency	%
Acetaminophen	129	28.3%
Celecoxib	67	14.7%
Diclofenac	47	10.3%
Indomethacin	37	8.1%
Piroxicam	35	7.6%
Sulindac	31	6.8%
Meloxicam	27	5.9%
Tramadol/ Acetaminophen	24	5.2%
Ketorolac	13	2.8%
Ibuprofen	11	2.4%
Naproxen	11	2.4%
Etoricoxib	2	0.4%
Ketoprofen	1	0.2%
No Drugs	20	4.3%

Table 1. Frequency and percentage of drugs used in the treatment of hand arthralgia in primary care.

Conclusion: Acetaminophen is used as first-line treatment in patients with hand arthralgia, followed by celecoxib. Each patient receives 2 NSAIDs for treatment of hand arthralgia at primary care.

Reference:

1. Warburton, L., Hider, S. L., Mallen, C. D., & Scott, I. C. (2019). Suspected very early inflammatory rheumatic diseases in primary care. Best practice Research Clinical rheumatology, 33(4), 101419. https://doi.org/10.1016/j.berh.2019.06.001

PANLAR2021-ABS-1188

DISEASE ACTIVITY IS ASSOCIATED WITH DIASTOLIC DISFUNCTION IN RHEUMATOID ARTHRITIS PATIENTS

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Objectives: Cardiovascular disease (CVD) is the main cause of mortality in patients with rheumatoid arthritis (RA) reflected by a higher prevalence of cardiovascular risk factors (CVRFs), a chronic systemic inflammatory state and heart

failure compared to the general population [1]. Left ventricular diastolic dysfunction (LVDD) is attributable to structural abnormalities such as hypertrophy or interstitial fibrosis and impaired myocyte relaxation resulting from ischemia and is frequently asymptomatic [2]. The presence of LVDD could be considered as the first step to development of heart failure. The aim of the study was to identify the association of disease activity and the presence of LVDD in RA patients.

Methods: This was a cross-sectional, observational, and comparative study of RA subjects that fulfilled the 2010 ACR/EULAR classification criteria, aged 40-75 years. Subjects were evaluated by a transthoracic echocardiogram performed and reviewed by two certified echocardiographers. A total of fifty-one RA patients diagnosed with LVDD according to the 2016 American Society of Echocardiography (ASE) criteria, and 51 RA patients without LVDD, matched by age, gender and comorbidities, were included in this study. Distribution was evaluated with the Kolmogorov-Smirnov test. χ^2, Students' t and Mann-Whitney U tests were used for comparations between groups. A p-value <0.05 was considered statistically significant.

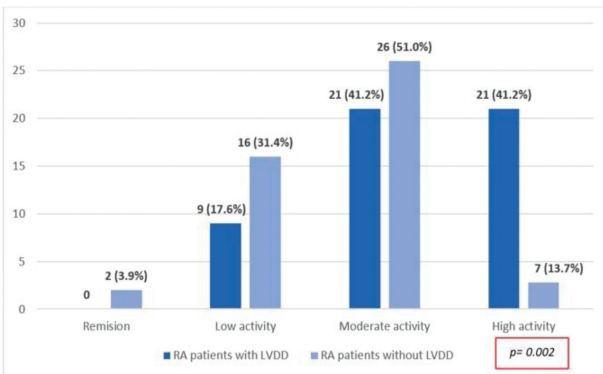
Results: There was no difference between groups regarding age, gender and comorbidities. Patients with LVDD demonstrated a higher disease activity evaluated by disease activity score using 28 joints-C reactive protein (DAS28PCR) (4.88 vs 3.56, p = 0.004) (Table 1). Patients with LVDD had a higher prevalence of being in the high disease activity category (41.2% vs. 13.7%, p = 0.002) (Figure 1). In a binary logistic regression, high disease activity was the only independent predictor for the presence of LVDD, with an OR 4.70, (95% CI 1.63-13.50, p = 0.004).

Table 1. Demographic and disease characteristics

	RA patients with LVDD (n=51)	RA patients without LVDD (n=51)	*p*
Women, n (%)	50 (98)	47 (92.2)	NS
Age, years ± SD	56.12 ± 8.76	53.91 ± 5.61	NS
HTN, n (%)	17 (33.3)	13 (25.5)	NS
T2DM, n (%)	6 (11.8)	10 (19.6)	NS
Dyslipidemia, n (%)	17 (33.3)	11 (21.6)	NS
Active smoking, n (%)	5 (9.8)	5 (9.8)	NS
BMI, kg/m² ± SD	28.20 ± 4.89	29.40 ± 5.13	NS
Disease duration, years (IQR)	10.70 (5.16-17.87)	5.66 (2.67-15.64)	**0.033**
DAS28-CRP, median (IQR)	4.88 (3.53-5.45)	3.56 (3.00-4.69)	**0.004**

NS, not significant; HTN, hypertension; T2DM, type 2 diabetes mellitus; BMI, body mass index; DAS28, disease activity score using 28 joints; CPR, C reactive protein

Figure 1. Classification of disease activity by DAS28-CRP



Conclusion: Patients with RA and LVDD have higher disease activity, so emphasis should be placed on strict antirheumatic treatment to achieve disease control and therefore avoid the risk of developing CVD and the progression to heart failure.

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PANLAR2021-ABS-1239

EFFECTS OF LOW INTENSITY TRAINING WITH BLOOD FLOW RESTRICTION IN WOMEN WITH RHEUMATOID ARTHRITIS

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Objectives: To assess the effect of low intensity training with blood flow restriction (TBFR) on muscle strength, muscle mass and physical function in rheumatoid arthritis (RA) patients.

Methods: Eighteen women diagnosed with RA were randomized into TBFR or high intensity resistance training (HIRT). The training program had a duration of twelve weeks. The exercises performed were knee extension, dorsal pull and biceps curl. Muscle strength was assessed by 1 maximum repetition and handgrip. Muscle mass was assessed by ultrasound (Esaote), the image being obtained in B-mode. Physical function was assessed by Time-up-and-Go test (TUG) and 30 seconds sit to stand test (STS). Disease activity was assessed by DAS-28. The Students' t test for Independent Samples and the Pairwise Students t test were performed; statistical significance was set at $p < 0.05$.

Results: Eleven women completed the study. The mean age was (TBFR 57.14 ± 6.67 and HIRT 61.00 ± 2.00). The mean disease activity among patients was mild at baseline and no statistically significant difference was found after twelve weeks of training (TBFR p = 0.36 and HIRT p = 0.69). The muscle strength of knee extension increased after training program (TBFR p = 0.01 and HIRT p = 0.003); however no significant statistically difference between groups was found (p = 0.20). The muscle strength of dorsal pull test increased only in the HIRT (TBFR p = 0.08 and HIRT p = 0.008), however also without difference between groups (p = 0.10). The muscle strength of biceps curl did not increase with either intervention. On the other hand, only TBFR was able to improve the right handgrip strength (TBFR p = 0.008 and HIRT p = 0.76) and left handgrip strength (TBFR p = 0.02 and HIRT p = 0.52), showing a statistically significant difference between groups ($p < 0.05$). The muscle mass increased after training program in the quadriceps musculature for TBFR (p = 0.005), but not for HIRT (p = 0.21), however there was no significant statistically difference between groups (p = 0.43). No statistically significant difference was found after training program in TBFR (p = 0.21) or HIRT (p = 0.22) for biceps muscle mass. The physical function evaluated by the TUG test showed improvements for TBFR (p = 0.03), but not for HIRT (p = 0.67); however also without difference between groups (p = 0.28). No statistically significant difference was found after training program with either TBFR (p = 0.12) or HIRT (p = 0.10) for STS test. These data are shown in Table 1.

Table 1. Description and evaluation of muscle strength, muscle mass, physical function and disease activity between the low intensity training with blood flow restriction and high intensity resistance training.

	TBFR (n=7)				HIRT (n=4)				[between groups]
Variable	Pre	Pos	Delta △	p	Pre	Pos	Delta △	p	p △
Das-28 (CRP)	2.91 ± 0.89	2.63 ± 1.21	-0.29 ± 0.76	0.36	2.87 ± 1.72	2.58 ± 1.20	-0.29 ± 1.29	0.69	1.00
Right handgrip strength (kg)	12.71 ± 6.82	19.43 ± 7.66	6.71 ± 4.61	**0.008***	11.75 ± 12.61	10.00 ± 8.74	-1.25 ± 7.41	0.76	**0.05***
Left handgrip strength (kg)	11.57 ± 8.26	18.71 ± 8.60	7.14 ± 6.04	**0.02***	12.00 ± 12.52	9.50 ± 8.70	-2.50 ± 6.95	0.52	**0.04***
TUG (s)	8.62 ± 1.09	8.12 ±0.97	-0.70 ± 0.68	**0.03***	8.43 ± 1.36	8.25 ± 1.03	-0.19 ±0.79	0.67	0.28
STS (repetition)	9.86 ± 2.19	11.43 ± 1.90	1.57 ± 2.30	0.12	12.25 ± 2.63	13.75 ± 1.71	1.50 ± 1.29	0.10	0.96
1RM knee extension (kg)	31.36 ± 9.55	34.64 ± 11.45	3.29 ± 2.50	**0.01***	19.50 ± 11.92	24.63 ± 12.91	5.13 ± 1.11	**0.005***	0.20
1RM dorsal pull (kg)	31.43 ± 6.32	34.29 ± 7.65	2.86 ± 3.63	0.08	24.25 ± 7.14	30.75 ± 7.46	6.50 ± 2.08	**0.008***	0.10
1RM biceps curl (kg)	7.86 ± 1.41	8.50 ± 1.61	0.64 ± 1.03	0.15	6.00 ± 1.22	7.63 ± 2.21	1.63 ± 1.38	0.10	0.21
Biceps muscle thickness (cm)	1.94 ± 0.46	2.18 ± 0.53	0.24 ± 0.45	0.21	1.80 ± 0.67	1.95 ± 0.63	0.15 ± 0.19	0.22	0.73
Quadriceps muscle thickness (cm)	6.62 ± 1.20	7.78 ± 1.44	1.17 ± 0.56	**0.005***	6.17 ± 0.28	6.96 ± 2.11	0.79 ± 0.75	0.21	0.43

Data are presented as mean ± Standard deviation
Abbreviations: TBFR, low intensity training with blood flow restriction; HIRT, high intensity resistance training; DAS-28, disease activity score-28; TUG, time-up-and-go test; STS, 30 seconds sit to stand test; 1RM, 1 maximum repetition test; CRP, C reactive protein; kg, kilogram; s, seconds; cm, centimeters.

Conclusion: TBFR improved muscle strength, muscle mass and physical function without changing disease activity in RA patients.

PANLAR2021-ABS-1398

ADHERENCE TO PHARMACOLOGICAL TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS IN A PRIVATE CLINIC AND IN A PUBLIC SYSTEM. ARE THERE DIFFERENCES? A PILOT STUDY

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Objectives: To compare adherence to treatment in patients with Rheumatoid Arthritis from the private and public consultations.

Methods: Descriptive, observational and cross-sectional study. Standardized surveys were conducted in patients with Rheumatoid Arthritis as per the 2010 ACR/EULAR 2010 in both medical centers that meet the following inclusion criteria: 1) That are paired in age, 2) in gender. and 3) Have been followed for the last six months. This pilot study was conducted in the first two weeks of April 2021. Social, demographic and clinical variables were collected and the Compliance Questionnaire on Rheumatology of 19 dimensions (CQR19) was used as an element of adherence, Spanish version.

Results: Ten patients were studied per group, there were no significant differences in age, gender, marital status and occupation, but there were in educational level and income ($p < 0.05$) (Table 1). Table 2 shows the clinical variables (disease duration, comorbidities, treatment and DAS28) and the CQR19 questionnaire where no significant differences were found.

Table 1: Social characteristics and demographics

	AR of the private practice n=10	AR of the public system n=10	*Valour p*
Age	50,7	55,9	*0,37*
Female gender	90%	80%	*0,55*
Marital status			
- Single	1 (10%)	2 (20%)	*0,21*
- Married	9 (90%)	3 (30%)	
- Widower	0	3 (30%	
- Free Union	0	1 (10%)	
Occupation			
- Housework	4 (40%)	5 (50%)	*0,26*
- Farmer	0	2 (20%)	
- Trader	4 (40%)	2 (20%)	
- Unemployed	0	1 (10%)	
- Professional	2 (20%)	0	
Educational level			
- Primary	0	7 (70%)	*0.03*
- Bachelor	5 (50%)	1 (10%)	
- Technical	2 (20%)	0	
- University	3 (30%)	2 (20%)	
Economic income			
- Less basic salary	3 (30%)	7 (70%)	*0,02*
- Equal to basic salary	3 (30%)	3 (30%)	
- Higher than basic salary	4 (40%)	0	

Table 2: CQR19 and clinical characteristics

	AR of the private practice n=10	AR of the public system n=10	*Valour p*
Compliance Questionnaire on Rheumatology 19-dimensional (CQR19) Spanish version	68,1	73,4	*0,10*
Evolution of the disease	112,8	134,4	*0,53*
Comorbidities			
- High blood pressure	0	4 (40%)	*0,71*
- Diabetes mellitus	2 (20%)	2 (20%)	
- Osteoporosis	3 (30%)	1 (10%)	
- Other	0	2 (20%)	
- No	5 (50%)	1 (10%)	
Treatment with prednisone			
- Without prednisone	1 (10%)	2 (20%)	*0,77*
- Prednisone 5mg/day	4 (40%)	1 (10%)	
- Prednisone >5 mg/day	5 (50%)	7 (70%)	
Treatment with FARMES			
- Methotrexate (MTX)	4 (40%)	6 (60%)	*0,32*
- Leflunomide (LFN)	0	0	
- MTX+LFN	5 (50%)	4 (40%)	
- MTX+Hydroxychloroquine	1 (10%)	0	
DAS28	4,0	4,4	*0,51*

Conclusion: In this pilot study with 20 Rheumatoid Arthritis from patients from the private clinic and public health systems, no statistically significant differences were found regarding adherence to pharmacological treatment; in both groups the degree of adherence was good despite the differences in educational level and income.

PANLAR2021-ABS-1437

PREDICTORS OF CLINICAL REMISSION IN PATIENTS WITH RHEUMATOID ARTHRITIS OF THE RHEUMATOLOGY AND CLINICAL IMMUNOLOGY SERVICE IN A HOSPITAL OF SANTIAGO, DOMINICAN REPUBLIC

Idelfi Sanchez, Dr. Piery Guzman, Dr. Estela Loyo, Dr. Glenny Paulino, Dr. Catherine Rodriguez, Dr. Greisy Diaz, Dr. Paola Collado, Dr. Melissa Rodriguez, Dr. Marianny Castillo, Dr. David De Luna, and Dr. Carmen Tineo.

Objectives: The aim of this study is to determine the predictive factors of clinical remission in patients with rheumatoid arthritis of the rheumatology and clinical immunology service of the José María Cabral y Báez Regional University Hospital, Santiago, Dominican Republic during the period July – December 2020.

Methods: A descriptive, observational, cross-sectional, medical records review study was carried out.

Results: This study included a total of 200 patients with the diagnosis of the disease, the mean age was 53.9 ± 15 years, 97% of the patients were female and 3% male. The majority patients had between 1-5 years of symptoms duration at the time of diagnosis. Extra-articular manifestations were identified in 32% of the cases. Patients were positive for antibodies, 78% for rheumatoid factor and 70% for anti-citrullinated peptides antibodies. Patients in remission were receiving synthetic disease-modifying antirheumatic drug in a 58% and 68% for hydroxychloroquine and methotrexate, respectively. Disease remission by DAS28 was 41%. These data are presented in Tables below.

		Remisión clinica AR (n=200)			Actividad de la enfermedad AR (n=119)			
		Si Frec. (%)	No Frec. (%)	*p*	Baja Frec. (%)	Moderada Frec. (%)	Alta Frec. (%)	*p*
Sexo	Femenino	79 (98%)	115 (97%)	*0.717*	43 (96%)	54 (96%)	18 (100%)	*0.672*
	Masculino	2 (2%)	4 (3%)		2 (4%)	2 (4%)	0 (0%)	
Rango edad (años)	18-28	50 (62%)	76 (64%)		2 (4%)	1 (2%)	1 (6%)	
	29-39	4 (5%)	4 (3%)	*0.652*	1 (2%)	9 (16%)	2 (11%)	*0.134*
	40-50	12 (15%)	12 (10%)		7 (16%)	16 (29%)	4 (22%)	
	>50	15 (18%)	27 (23%)		35 (78%)	30 (54%)	11 (61%)	
Comorbilidades*		37 (46%)	48 (40%)	*0.453*	26 (58%)	14 (25%)	8 (44%)	*0.004*
Tabaquismo*		1 (1%)	1 (1%)	*0.783*	0 (0%)	1 (2%)	0 (0%)	*0.567*
Tiempo evolución de la enfermedad (años)	1-5	21 (26%)	25 (21%)		23 (51%)	38 (68%)	14 (78%)	
	6-10	45 (56%)	75 (63%)	*0.566*	7 (16%)	9 (16%)	3 (17%)	*0.009*
	>10	15 (18%)	19 (16%)		15 (33%)	9 (16%)	1 (5%)	
Manifestaciones extraarticulares*		18 (22%)	45 (38%)	*0.020*	18 (40%)	17 (30%)	10 (56%)	*0.148*
Erosiones*		43 (53%)	65 (55%)	*0.831*	24 (53%)	29 (52%)	12 (67%)	*0.531*

Fuente: Instrumento de recolección de datos Factores predictores de remisión clínica de los pacientes con artritis reumatoide del servicio de reumatología e inmunología clínica del Hospital Regional Universitario José María Cabral y Báez

**Nota: Solo se presentan los resultados positivos. AR= artritis reumatoide*

Conclusion: The predictive factors that influenced remission in our population were the absence of extra-articular manifestations and comorbidities, normal values of acute phase reactants, and receiving treatment with hydroxychloroquine and methotrexate.

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Tabla 4. Relación de la terapia a base de FARME sintético o biológico según la remisión clínica y la actividad clínica de la enfermedad

	Remisión clínica AR (n=200)		p	Actividad de la enfermedad AR (n=119)			p
	Si Frec. (%)	No Frec. (%)		Baja Frec. (%)	Moderada Frec. (%)	Alta Frec. (%)	
Hidroxicloroquina o cloroquina	47 (58%)	85 (71%)	0.049	25 (56%)	47 (84%)	13 (72%)	0.007
Metotrexate	55 (68%)	98 (82%)	0.018	36 (80%)	50 (89%)	12 (67%)	0.079
Sulfasalazina	4 (5%)	12 (10%)	0.188	3 (7%)	6 (11%)	3 (17%)	0.481
Leflunomida	9 (11%)	6 (5%)	0.110	3 (7%)	1 (2%)	2 (11%)	0.238
Tofacitinib	4 (5%)	14 (12%)	0.098	7 (16%)	6 (11%)	1 (6%)	0.509
Adalimumab	9 (11%)	11 (9%)	0.666	4 (9%)	5 (9%)	2 (11%)	0.957
Etanercept	5 (6%)	9 (8%)	0.705	3 (7%)	5 (9%)	1 (6%)	0.859
Golimumab	1 (1%)	6 (5%)	0.150	3 (7%)	2 (4%)	1 (6%)	0.775
Infliximab	0 (0%)	1 (1%)	0.408	0 (0%)	1 (2%)	0 (0%)	0.567
Tocilizumab	19 (24%)	16 (13%)	0.067	6 (13%)	9 (16%)	1 (6%)	0.523
Rituximab	21 (26%)	24 (20%)	0.338	11 (24%)	10 (18%)	3 (17%)	0.659

Fuente: Instrumento de recolección de datos Factores predictores de remisión clínica de los pacientes con artritis reumatoide del servicio de reumatología e inmunología clínica del Hospital Regional Universitario José María Cabral y Báez

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PANLAR2021-ABS-1277

COMORBIDITIES IN RHEUMATOID ARTHRITIS ASSOCIATED WITH DMARD VERSUS BDMARD IN SANTO DOMINGO, DOMINICAN REPUBLIC

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Objectives: To determine the most frequent comorbidities in rheumatoid arthritis associated to DMARDs versus bDMARDs, in a population of the Dominican Republic.

Methods: Observational, descriptive cross-sectional study. Data were collected from the rheumatoid arthritis cohort of the rheumatology service of the Padre Billini Hospital from November 2018 to 2020. Inclusion criteria, patients>18 years of age, with a diagnosis of rheumatoid arthritis according to the 2010 ACR / EULAR classification criteria receiving DMARD and bDMARD therapy. The electronic medical records of patients diagnosed with rheumatoid arthritis were examined, data were analyzed with SPSS V23.

Results: A total of 1087 patients met the inclusion criteria, 87% female, 13% male. Mean age at diagnosis 52.3 years, bDMARD 78.8%, DMARD 83.9%; 21.3% used Adalimumab, 5.71% Golimumab, 8.7% etarnecept, 32.7% Tocilizumab, 21.8% tofacitinib, 9.5% Rituximab. 90.0% used methotrexate, 0.65% leflunomide, 0.65% azathioprine; rheumatoid factor and anti - CCP positivity in 57.9%, C-reactive protein and elevated erythrocyte sedimentation rate in 78%, dyslipidemia in 49%, arterial hypertension in 47%, normal body mass index (BMI) in 49.8%, overweight in 33%, obesity in 17.2%, thyroid disease in 7%, gastrointestinal diseases in 10%. 28% patients who presented dyslipidemia and are being treated with biologics and 25% treated with DMARDs. 20% of patients with arterial hypertension are on bDMARD, 27% treated DMARDs. 11% treated with bDMARD are overweight and 21% of the overweight are treated with DMARD. 0.3% of those with with gastrointestinal disease are treated with biologics and and 0.6% of them are treated with DMARDs.

Conclusion: The most frequent comorbidities in rheumatoid arthritis associated with DMARDs and b-DMARDs are dyslipidemia, followed by high blood pressure and obesity.

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PANLAR2021-ABS-1391

LEFT VENTRICULAR DELAYED RELAXATION IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To describe the frequency of left ventricular delayed relaxation pattern in patients with RA, and the relationship with its clinical and serological characteristics, as well as with traditional and non-traditional cardiovascular risk factors.

Methods: Descriptive, cross sectional study, in a Paraguayan cohort of patients with RA. This study had two phases: the first one, included a standardized questionnaire according to the variables included in the Cardiovascular Risk project (PINV15-0346), from the Consejo Nacional de Ciencias y Tecnología (CONACYT); the second one included a laboratory sample collection for serum biomarkers for cardiovascular risk prediction (i.e endothelin, alpha-TNF, Eselectin, t-PA, VCAM, PAI-1 and high sensitivity-CRP levels) and echocardiographic assessment with a Doppler 7 GE USA equipment. SPSS Statistics v23 was used for data analysis. Quantitative variables were presented as means and qualitative variables as frequencies. Chi square test was performed for comparisons between dichotomous variables. A p value ≤0.05 was used for statistical significance.

Results: 100 patients were included, 87% women, with a mean age of 51.36 ± 11.03 years, mean disease duration of 130.9 ± 102.64 months. 84.4% had positive ACPA. 43.3% had bone erosions, with an average of DAS 28-ESR 3.42 ± 1.1. 60% of patients presented with echocardiographic left ventricular delayed relaxation pattern, which presented more frequently Hypertension (40% vs 19.4%, p = 0.037), Diabetes mellitus type 2 (11.7% vs 0%, p = 0.036), obesity (38.3% vs 16.7%, p = 0.025), altered glycemia (27.1% vs 6.5%, p = 0.02), abnormal HbA1C (50.8% vs 22.6%, p = 0.01), higher mean

weight (75.9 ± 17.62 p = 0.02), a higher frequency of a higher Framingham index (20% vs 3.2%, p = 0.03). Regarding the clinical parameters, a higher frequency of erosions was found (55.8% vs 22.2%, p = 0.004), without other significant differences in disease activity, seropositivity or disease duration. As for serum biomarkers, higher levels of fibrinogen (639.71 ± 189.84, p = 0.04), homocysteine (11.74 ± 7.81, p = 0.05) and VCAM (519, 16 ± 203.68, p = 0.02) were found.

Conclusion: We found a high frequency of diastolic dysfunction in patients with RA. These patients presented more traditional CV risk factors, erosions, and abnormal levels of fibrinogen, homocysteine, and VCAM. Adequate control of cardiovascular risk factors and echocardiographic assessment of these patients is essential in order to avoid the deterioration of heart function and the occurrence of damage.

PANLAR2021-ABS-1409

GRIP STRENGTH EVALUATION OF AGING WISTAR RATS WITH RHEUMATOID ARTHRITIS TREATED WITH CURCUMIN AND PREDNISOLONE

Diego Francis Saraiva F. Rodriguez, Ana Caroline Barbosa Retameiro[1], Carolina De Toni Boaro[1], Sabrina Jackeline Menegon[1], Taciane Stein Da Silva Leal[1], Gladson Ricardo Flor Bertolini[1], Rose Meire Costa[1], and Lucinéia De Fátima Chasko Ribeiro[2]. *[1]Centro de Ciências Biológicas e da Saúde, [2]Centro de Ciências Médicas e Farmacêuticas, Universidade Estadual do Oeste do Paraná, Cascavel, Brazil.*

Objectives: Rheumatoid arthritis (RA) is an inflammatory multifactorial condition that compromises the functional capacity including reduced grip strength of aging populations. To demonstrate the safety and efficacy of phytotherapy curcumin in RA conditions, functional performance parameters need to be evaluated. In this study we propose to evaluate the effects of curcumin and prednisone supplementation on the grip strength in aging Wistar rats with rheumatoid arthritis.

Methods: To perform the study, 16 female 18 months Wistar rats were divided equally into four groups: Arthritis group (RA), Curcumin arthritis group 100 mg / kg / day (CA), Prednisone arthritis group 2 mg / kg / day (PA1) and Arthritis group Prednisone 10 mg / kg / day (PA1). RA was induced in the right knee joint and based on the Freund's Complete Adjuvant (CFA) model. Before RA induction, the baseline assessment (BEV) was performed using a plantar grip strength measurement device, and before any intervention, the first grip strength evaluation (EV1) was performed after 24 hours. Then, every 48 hours day-later a new evaluation of the functional parameters was carried out, following the sequence from EV1 to EV7. Medication or curcumin treatment was administered every day and before all evaluations. After the experimental period, the data collected was statistically analyzed assuming p < 0.05.

Results: It was possible to verify differences between the group's averages and EVS measurements (p < 0.05), but there was no interaction between the two. Among the groups, PA1 and PA2 showed lower strength grip in relation to RA and CA, with greater recovery in EV4. And the CA presented greater grip strength. Among the evaluations, all groups showed improvement, but did not return to values equal to those of Baseline BEV (Figure 1). It is possible to state that in all parameters the CA group showed better performance.

Conclusion: It is possible to conclude that all experimental groups improved after the arthritis induction protocol. The results showed that despite the superior functional performance of the arthritis group supplemented with curcumin, at the end of the experiment, all groups showed a clear functional improvement.

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PANLAR2021-ABS-1411

EVALUATION OF THE RIGHT LIMB FUNCTIONALITY OF AGING WISTAR RATS WITH RHEUMATOID ARTHRITIS AND TREATED WITH CURCUMA OR PREDNISONE

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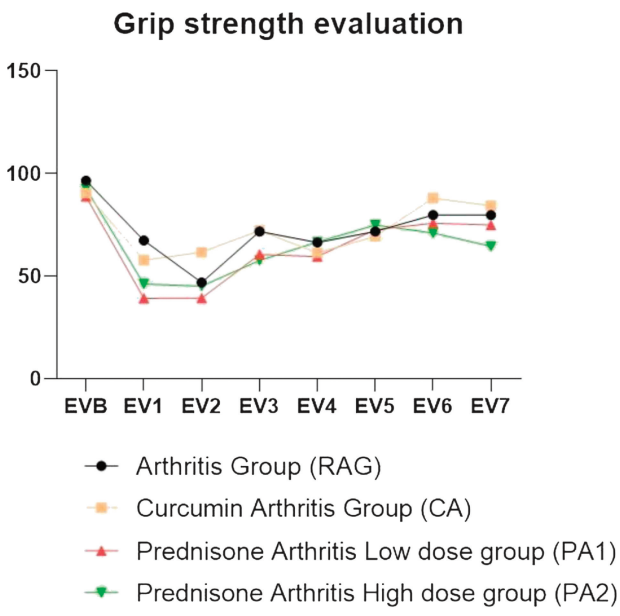
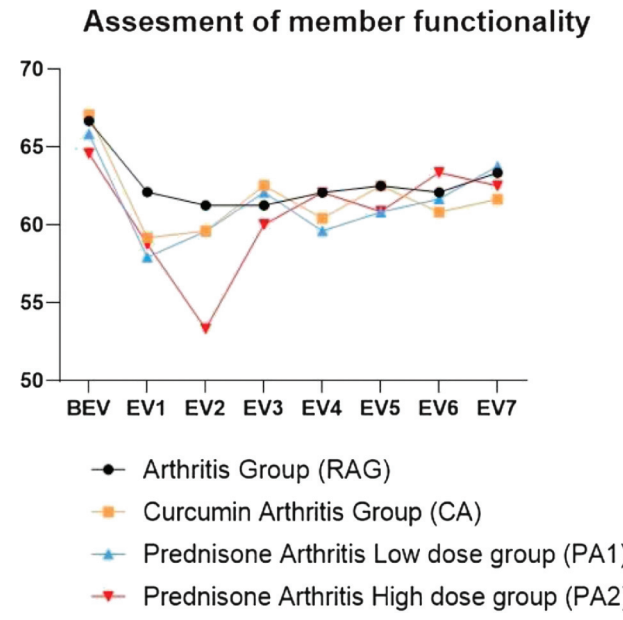
Objectives: Rheumatoid arthritis (RA) is a chronic inflammatory disease that affects joints and can lead the patient to physical disability; it occurs with a higher incidence as we age. Treatment is based on anti-inflammatory drugs. This study compared the effects of curcuma, an extract with anti-inflammatory properties, with the glucocorticoid Prednisone, on the function of the right limb of animals with RA.

Methods: 16 female Wistar rats aged 18 months were divided into four groups (n = 4): arthritis (RAG), curcuma arthritis 100 mg/kg/day (CA), Prednisone arthritis 2 mg/kg/day (PA1) and Prednisone arthritis 10 mg/kg/day (PA2). RA was induced by the Freund's Complete Adjuvant (CFA) in the right knee joint. Before RA induction, baseline evaluation (BEV) was performed on the Inclined Plane apparatus to assess the function of the right limb of the animals before any intervention; after 24 hours the first evaluation was performed (EV1), after 48 hours the





second was performed EV2 and so it was until EV7. During the evaluations, three angle measurements, provided by the animal's slide on the apparatus, were noted and the average of them was recorded. Prednisone or curcuma were administered every day and before the evaluations. After the experimental period, the data from the eight evaluations were statistically analyzed.

Results: Differences were found between the groups, firstly the PA2 showed a significant decrease in the functionality of the limb, and from EV6 onwards, it showed the best rate of improvement compared to the others; among the evaluations, where it was found that in EV7 the averages of the PA1 and PA2 groups returned to values similar to the BEV; and there was interaction between groups and evaluations ($p < 0.05$). No significant difference was found in the evaluations of the AC group (Figure 1).

Conclusion: RA induction altered the functionality of the animals' right limb, treatment with the highest dose of Prednisone provided fastest recovery, but in general all groups returned to values similar to BEV at the end of EV7.

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PANLAR2021-ABS-1340

METHOTREXATE PREVENTS SEVERE FORMS OF SARS-COV-2 INFECTION IN PATIENTS WITH RHEUMATOID ARTHRITIS: A COHORT STUDY

Freddy Liñán and Juan Leiva Goicochea.

Objectives: To relate the degree of severity, hospitalization time and recovery time for SARS-CoV-2 in patients with rheumatoid arthritis who use methotrexate.

Methods: Medical records review cohort study. The sample consisted of 90 patients with rheumatoid arthritis infected with SARS-Cov-2; 54 of them used methotrexate and 36 used other drugs (leflunomide, sulfasalazine, azathioprine, hydroxychloroquine). All study patients discontinued treatment during infection.

Results: Patients treated with methotrexate had a lower risk of developing severe forms of infection, they had a shorter hospitalization time and a faster recovery than the group of patients treated with other drugs.

Conclusion: Methotrexate- users rheumatoid artritis patients had a less serious forms of infection, shorter hospitalization time and experienced a faster recovery of SARS-CoV-2.

PANLAR2021-ABS-1195

SEASONAL PATTERNS IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

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Objectives: It has been proven that RA patients worsen their condition in extreme seasons, the data are generally from the northern hemisphere. To estimate whether there are seasonal differences in clinical, laboratory, clinimetric and imaging differences in the onset of RA.

Methods: Cross-sectional study, which included patients who were diagnosed with RA (July 2017-2020). In the first visit was performed: laboratory, X-ray films, ultrasound of the hands and Interview (sociodemographic clinical and clinimetry). The diagnosis and the date of the complete evaluation were recorded. They were classified into patients in the cold (March-August) and warm (September-February) periods of the year and also for each season. Descriptive statistics, Chi square, Fisher's exact, Students't and Mann Whitney tests and ANOVA or KW test were performed. Multivariate regression analysis were performed, entering into the model the variables that were associated with the periods studied and with each season.

Results: Trough 3 years, 118 patients developed RA, 64% in the warm period ($p = 0.02$). The differential characteristics between the periods were (warm-cold: relevant): comorbidities (79% > 64% $p = 0.08$), positive RF (84% > 70% $p = 0.05$), Radiographic erosions (16% > 33% $p = 0.03$), Joint space narrowing (20% > 44% $p = 0.008$); in the multivariate analysis, only RF+ was negatively

RA Features	Invierno (24)	Otoño (18)	Primavera (39)	Verano (37)	p
Female gender%	62,5	61,1	82	65	
Age	52,6 (16,6)	60,2 (12,5)	53,5 (12,5)	58 (13,7)	
Years of study (IQR)	13 (7,7-16)	15 (14-16)	14,5 (12-16)	14 (12-16)	
Comorbidities%	71,0	**55,6**	74	87	**0,05**
Arterial hiperthension%	37,5	22,2	39,5	46,7	
Diabetes%	9,0	16,7	18,4	13,8	
COPD%	0,0	5,6	2,6	**13,6**	**0,02**
Neoplasms%	0,0	0	2,5	**10**	**0,03**
Dyslipidemia%	30,4	22,2	23,7	33,3	
Hypothyroidism%	25,0	16,7	34,2	16,7	
Fibromyalgia%	0,0	0	5,3	6,7	
Smoking%	61,0	61,1	43,2	50	
Symptoms less than 1 year%	56,5	62,5	48,6	42,3	
Symptoms in MCP%	74,0	**47,1**	75,7	73,1	**0,025**
Morning stiffness> 60 mint%	61,0	41,2	38	54	
Severity of symptoms in the morning%	78,0	70,6	**95**	77	**0,01**
Difficulty closing the fist%	**56,0**	41,2	**24,3**	42,3	**0,04**
Squeeze test positive%	**87,0**	47,1	54,1	73,1	**0,001**
Arthralgia score (IQR)	**4,5 (3,2-6)**	3 (2-4)	3 (2-5)	3 (0-5)	**0,008**
Positive FR%	75,0	**61**	**90**	78,4	**0,04**
RF titre IU / ml (IQR)	19 (12,4-121)	28 (10,4-87)	36 (23-60,3)	22 (13,4-55)	
ACPA positive%	62,5	44,4	46	41,2	
ACPA U / ml	41 (4,5-184)	88 (0-120)	18 (1,2-197)	96.5 (27,5-200)	
ERS mm/hr (IQR)	11 (7-40)	24 (16,5-31,7)	23 (13,5-42,2)	26 (18,5-41,5)	
CRP mg / L (IQR)	**1 (0-6)**	4 (2-10)	4,5 (1-9,7)	4,5 (1,75-13,5)	**0,009**
Tender joints (IQR)	5,5 (5-8)	4 (2,7-6,2)	5 (2-8)	3,5 (2-6)	
Swollen Joints (IQR)	1 (0-2,7)	0,5 (0-2)	1 (0-4)	1 (0-2,5)	
VAS pain (IQR)	65 (50-80)	**50 (22,5-67,5)**	60 (50-75)	54 (50-80)	**0,02**
DAS 28 PCR%	3,7 (0,9)	3,4 (0,9)	3,7 (1)	3,4 (1,1)	
DAS 28 ERS%	4,3 (1,2)	4,1(0,9)	4,3 (1,2)	4 (1,3)	
CDAI (IQR)	19 (13-22)	15 (11,7-19,5)	17 (13-24)	15 (12,5-21)	
HAQ (IQR)	1 (0,5-1,2)	0,92 (0,56-1,1)	1 (0,5-1,2)	1 (0,5-1,2)	
Rx erosions%	33,0	33,3	13,2	19,4	
Rx JN%	33,3	**55,6**	18	22,2	**0,005**
Ultrasound tenosynovitis%	12,5	5,6	12,8	21,6	
Ultrasounds gray scale%	25,0	44,4	39,5	31,4	
Power Dopler US%	**12,5**	47,1	33	35	**0,024**
Time since symptom onset -months (IQR)	11 (4,2-33,5)	12 (5,5-40)	12 (6-24)	15 (5-45)	

associated with the cold period (OR 0.29 95% CI 0.1-0.8, $p = 0.024$). Table 1 shows all the characteristics of RA per each season, in the boxes highlighted in grey are those variables that presented significant differences with respect to the other seasons. In the multivariate analysis an independent association with 1) Winter: squeeze+ OR 7.9 (95% CI 1.3-47, $p = 0.02$). 2) Autumn: Comorbidities OR 0.2 (95% CI 0.05-0.8, $p = 0.02$), pain VAS OR 0.9 (95% CI 0.93-0.99, $p = 0.007$), Joint space narrowing OR 5 (95% CI 1.3-19, $p = 0.017$). 3) Spring: severity of symptoms in the morning OR 4.9(95% CI 1.04-23.7, $p = 0.04$), difficulty making a fist OR 0.3 (95% CI 014- 0.89, $p = 0.03$). 4) Summer: COPD OR 7 (95% CI 1.2-40, $p = 0.03$), Neoplasia OR 10.5 (95% CI 1.04-106, $p = 0.04$). The analysis of the numerical variables only showed a significant difference in the arthralgia score which was greater than 5 in the winter ($p = 0.04$).

Conclusion: There are differences in the characteristics of RA onset according to the season of the year; 64% of the patients were diagnosed in the warm months and had a higher proportion of seropositivity. Each season of the year showed distinctive characteristics in these RA patient groups.

PANLAR2021-ABS-1278

FREQUENCY OF ATHEROMATOUS PLAQUES IN CAROTID ARTERIES USING DOPPLER IN PATIENTS ASSOCIATED WITH RHEUMATOID ARTHRITIS ACTIVITY, PADRE BILLINI HOSPITAL, DOMINICAN REPUBLIC

Angelo Alberto Cornelio Vasquez[1], Teresandris Polanco Mora[1], Jennifer Santana Peralta De Heyaime[1], Yamilet Cruz[1], Edral Rodriguez Bautista[1], Tirso Valdez Lorie[1], Roberto Muñoz Louis[1], and Rafael Alba Feriz[1]. [1]*Reumatología, Hospital Docente Padre Billini, Santo Domingo, Dominican Republic.*

Objectives: To evaluate the presence of atheromatous plaques in patients with rheumatoid arthritis.

Methods: Observational, cross-sectional study. Carotid Doppler was performed in patients with a diagnosis of rheumatoid arthritis (and healthy controls) being followed at the outpatient clinic of the rheumatology service of the Padre Billini Teaching Hospital from November 2019 to 2020. Inclusion criteria, patients>18 years of age, diagnosed with rheumatoid arthritis according to the 2010 ACR / EULAR classification criteria, carotid Doppler with atheroma plaques. Controls without disease, matched by sex and age. Data were analyzed with SPSS V23.

Results: 251 patients met inclusion criteria, 96.2% female, 251 healthy controls were included. Average disease duration 7.5 years. 75% (190) exhibited positive rheumatoid factor, 29% (64) positive Anti-CCP. 21% (53) Dyslipidemia. (14%) 36 obesity, (11%) 30 hyperglycemia. 3.1% (8) smokers. The Doppler findings were atheromatous plaques 20.7% (52),) calcified 0.6% (16 and bilateral carotid stenosis 0.07% (2); 60% (165) presented elevated C-reactive protein, 33% (83) elevated erythrocyte sedimentation. The DAS28 demonstrated low activity in 62% (157), moderate activity in 17% (45), and high activity in 0.9% (25). Carotid Doppler findings in healthy controls revealed atheromatous plaques in 11% (28) and calcified in 0.3% (9).

Conclusion: Our study showed that half of the patients with rheumatoid arthritis had atheromatous plaques. They were associated with low disease activity, for which we recommend evaluating cardiovascular risk using carotid Doppler in patients with low disease activity, whereas the presence of plaques in healthy controls was not representative.

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PANLAR2021-ABS-1288

RHEUMATOID ARTHRITIS AND ITS OVERLAP WITH ANTISYNTHETASE SYNDROME: ABOUT A CASE

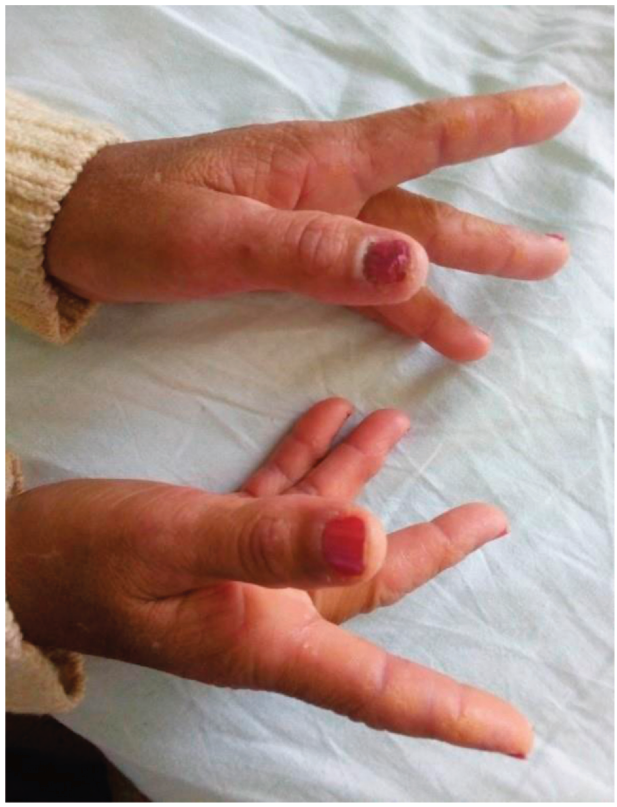
Araceli Chico Capote, Ramón García Hernández, and Silvia Siham Mendoza Kunkar.

Objectives: To describe the clinical case of a patient with rheumatoid arthritis overlapping with antisynthetase syndrome.

Methods: We present the case of a patient with rheumatoid arthritis that after three years of disease overlaps with antisynthetase syndrome. We also search PubMed, Ovid Medline and google scholar, (2019-2021) for rheumatoid arthritis with antisynthetase syndrome.

Results: Due to polyarthritis, muscle weakness, interstitial lung disease, mechanic's hands (Figure 1), positive anti-Jo-1 antibodies, the diagnosis of antisynthetase syndrome was made. Methotrexate was withdrawn due to the possibility of its association with lung damage, the dose of steroids was temporarily increased, and treatment with Azathioprine was started. At the present time the patient is asymptomatic, with improvement in skin lesions and muscle weakness.

Conclusion: This case shows that in patients with rheumatoid arthritis of years of evolution, an overlap with antisynthetase syndrome should be considered in patients with Raynaud's phenomenon when the biochemical and electromyographic verification of muscle involvement is absent.



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PANLAR2021-ABS-1420

ANTI-CITRULLINATED PROTEIN ANTIBODIES POSITIVITY IN EARLY RA: INSIGHTS ON DISEASE ACTIVITY AND METHOTREXATE DOSAGE REQUIREMENTS, A COHORT STUDY OF COLOMBIAN RA PATIENTS

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Objectives: We aimed at comparing differences on remission rate and mean differences on disease activity and MTX dose in an ambulatory clinic-based cohort of Colombian early rheumatoid arthritis (RA) patients, categorized by the presence of ACPA positivity.

Methods: We conducted a medical records review cohort study with clinical-epidemiological data obtained from May 2013 to December 2020 of patients with early RA diagnosis (symptom onset ≤12 months). The patients were stratified into according to their ACPA positivity. Disease activity, assessed by the DAS28-ESR, and MTX dose were recorded at baseline and after 3, ≈ 6, ≈ 12 and ≈ 24 (+/- 3) months. Differences on proportions (2-sample Chi square test) and mean differences (Wilcoxon nonparametric rank test for two independent samples or 2-sample t-test) were calculated and tested for statistical significancy.

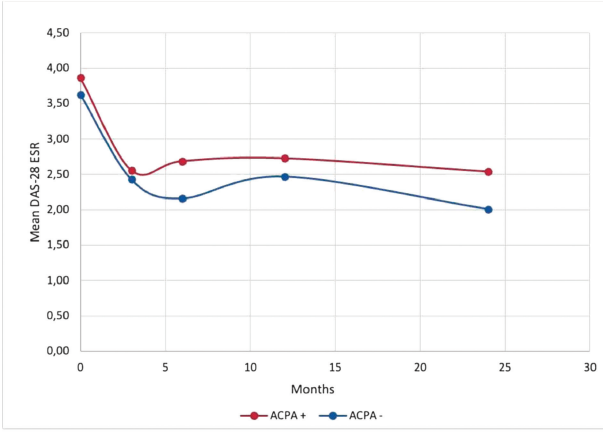
Results: Data from a total of 144 patients were included in the analysis. On our primarily female (n = 115, 79,9%) population, $ACPA^+$ group was the most prevalent (n = 118; 81,9%); On first consultation low disease activity or remission was seen on 41,7% of cases (n = 60). After three months, both groups showed disease activity reduction and it was maintained during the follow-up period. However, as seen in Table 1, there was a trend towards an improvement in DA favoring the $ACPA^-$ group, and a statistically significant mean difference was displayed when comparing mean DA at 24 months. On the other hand, there were no statistically significant differences when comparing remission rate proportions. The average MTX dose was higher for the $ACPA^+$ group, and when comparing overall mean values (16,3 vs 12,5: dif. of 3,79; $p < 0,001$) there was a significant difference for the baseline (dif. of 3,95; p 0,027), 3 (dif. of 4,97; p = 0,003), and 6 (dif. of 3,80 p = 0,011) months visits; however, these differences were not maintained in longer follow-up periods. These data are noted in Table 1 and Figure 1.

Conclusion: In our population, $ACPA^+$ patients showed higher disease activity at baseline and on average during the follow-up period; furthermore, ACPA positivity was shown to be related to higher disease activity overall and at 24 months, and a requirement for higher MTX dose at baseline, 3, and 6 months. These data must be interpreted with caution because they do not rule out the influence of other factors; accordingly, further research with a larger sample size and a longer follow-up period could assess the long-term effects of ACPA positivity and explore further the proposed trends.

Table 1. Disease activity (DA) differences of proportions (low DA and remission rates) and mean values when comparing $ACPA^+$ vs $ACPA^-$ patients

	$ACPA^+$		$ACPA^-$		Mean difference	p value
	low DA and remission rates (%)	Mean DA	low DA and remission rates (%)	Mean DA		
Baseline	41 (n=48)	3,87	48 (n=12)	3,63	0,24	0,396
3	70,3 (n=64)	2,56	80 (n=12)	2,43	0,13	0,7
6	70 (n=56)	2,69	90 (n=18)	2,16	0,52	0,326
12	68,8 (n=77)	2,73	84,6 (n=22)	2,47	0,26	0,781
24	**76,2** (n=64)	2,54	**85,7** (n=18)	2,01	**0,54**	**0,029**
Overall	**/**	**2,92**	**/**	**2,59**	**0,34**	**0,039**

Figure 1. Mean disease activity progression when comparing ACPA+ vs ACPA- patients.



PANLAR2021-ABS-1373

INITIAL IMAGING EVALUATION IN A CUBAN CASE SERIES OF EARLY RHEUMATOID ARTHRITIS PATIENTS

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Objectives: Ultrasonographic evaluation of patients with early rheumatoid arthritis is not yet a common practice in Cuba. Our aim was to describe the clinical and ultrasonographic characteristics of patients with early rheumatoid arthritis in a Cuban province.

Methods: Incident cases of patients with early rheumatoid arthritis in the Villa Clara province during 2020 and referred by rheumatologists to the specialized consultation of musculoskeletal ultrasound, were included. Data concerning demographic, clinical and analytical characteristics were collected. Metacarpophalangeal and metatarsophalangeal joints were evaluated by high-resolution ultrasonography in gray scale and color Doppler. Synovitis severity was evaluated according to semi-quantitative scales recommended by Outcomes Measures in Rheumatology (OMERACT). Bone erosions were evaluated by conventional radiography and ultrasonography.

Results: 22 patients were included; their mean age was 54.5 years (±15.5) and females predominated (77.3%). The median number of swollen joints was 6 (interquartile range: 3.5 to 8.2), and the median number of painful joints was 10 (interquartile range: 4 to 8). 63.6% had high activity (median DAS28: 6.2; interquartile range: 3.9 to 7.2). C-reactive protein and erythrocyte sedimentation rate were elevated in 63.6% and 77.3%, respectively. Radiological bone erosions were presented in 54.5%. Most patients had bone erosions of <2 mm on ultrasound (54.5%). 22.7% showed single-vessel color signal and 95.5% had low-grade synovial hypertrophy on ultrasound.

Conclusion: The patients studied presented a high prevalence of significant clinical activity, synovitis and bone erosions. The ultrasonographic study provides important information that complements the clinical and analytical evaluation at the time of diagnosis.

PANLAR2021-ABS-1414

A LOW-COST MULTIDISCIPLINARY APPROACH MODEL IN PATIENTS WITH RHEUMATOID ARTHRITIS CAN ACHIEVE GREAT RESULTS IN COMPLIANT PATIENTS WITH RHEUMATOID ARTHRITIS RECEIVING ANTI-TNF THERAPY

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Objectives: The aim of this study was to describe the effects of a low-cost multidisciplinary approach in patients who received anti-TNF for treating RA in a 2-year period.

Methods: We implemented a center of excellence model program proposed by REAL-PANLAR. In order to define adherence to the multiapproach model the authors performed an expert consensus to propose a method to measure adherence to the model in a three levels of adherence, as follows: High: For rheumatology patients had to have between 6 and 12 consultations in one year. For other specialties 3 or more consultations in one year. Moderate: For rheumatology patients had to have between 3 and 5 consultations in one year. For other specialties 2 or 4 consultations in one year. Low: For rheumatology patients had to have between 1 and 2 consultations. For other specialties, patients had to have only 1 consultation or less in one year. We performed a descriptive analysis and compared the level of adherence and disease activity.

Results: We included 250 patients with anti-TNF DMARDs; 176 patients were in moderate disease activity and 74 were in severe disease activity. In our cohort 50% of patients were receiving Certolizumab (50%) followed by Etanercept (20%). In our cohort, most patients were considered as highly adherent to the rheumatologist consultation 58%, followed by physiatrist, physical therapy, psychology and occupational therapy; nutrition was the specialty with the lowest adherence. In this cohort 15% of patients, fulfill the criteria for being considered as highly adherent to the multidisciplinary model, and 95% of those who were highly adherent achieved remission. In our cohort being highly or moderately adherent to the multidisciplinary model was associated with remission in the bivariate and multivariate analysis ($p < 0.05$). The cost of the multidisciplinary model for treating our patient cohort was $271.453 USD for two years, while the cost of the anti-TNF therapy for two years was $ 5,557,224.99 USD. Thus, the model only represents 5% of the total costs of the care for a patient with rheumatoid arthritis with moderate or severe disease activity.

Conclusion: Our study demonstrates that a multidisciplinary approach is an effective option for achieving remission or low disease activity in patients with rheumatoid arthritis, and it only constitutes 5% of the treatment cost for rheumatoid arthritis. Patients with high or moderate adherence to the health care model reached clinical remission more easily.

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PANLAR2021-ABS-1134

PREVALENCE OF ARTHRITIS/RHEUMATISM IN BRAZIL

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Objectives: To describe the prevalence of arthritis/rheumatism in the adult Brazilian population.

Methods: Cross-sectional, descriptive study with a quantitative and population-based approach that used data from the 2013 National Health Survey (PNS). PNS is a home-based epidemiological survey, representative for Brazil, with data in the public domain. The sample was composed of 60,202 individuals. The survey included information related to the socio-demographic and health profile and the presence of arthritis/rheumatism. The data were analyzed using descriptive statistics in the Stata (r) software (version 11.0). The study was based on the initiative named Strengthening the.

Reporting of Observational Studies in Epidemiology (STROBE).

Results: 6.4% of the participants had a medical diagnosis of arthritis/rheumatism. The majority (40.4%) of individuals with arthritis/rheumatism live in the southeastern region of Brazil, were of white color/breed (61.8 = 6%), widowed marital status (15.5%) and had an educational level without complete education and elementary school (9.3%). Regarding age, 19% were 75 years of age or older, followed by 65 to 74 years of age (16.1%), 60 to 64 years of age (14.9%), 30 to 59 years of age (5.6%) and 18 to 29 years of age (1.3%). Regarding the clinical aspects, 50.1% were not taking medications for arthritis/rheumatism, did not perform physical activities (75%), did not do any physical therapy (83%), did not receive acupuncture (96%), did not practice other treatment (97%) and did not undergo surgery (95%). Respondents pointed out that arthritis/rheumatism has no limitations (36%), followed by some limitations (29%); moderately (18%); intense (13%); and very intense (4%).

Conclusion: The prevalence of arthritis/rheumatism in the population of Brazil was 6.4% and the majority of these subjects did not perform any physical activity, physiotherapy or acupuncture, but they report that arthritis/rheumatism has no or little functional limitation. It is evident the importance of encouraging regular practice of physical activity and physical rehabilitation of people with arthritis/rheumatism in Brazil, through strategic and health-promoting actions.

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PANLAR2021-ABS-1246

DEVELOPMENT OF CAROTID PLAQUE IN THE FIVE-YEAR FOLLOW-UP IN RHEUMATOID ARTHRITIS PATIENTS

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Objectives: Patients with rheumatoid arthritis (RA) are more susceptible to asymptomatic acute myocardial infarction and sudden cardiac death[1]. The presence of carotid plaque (CP) in patients with RA has shown to be a predictor of future cardiovascular events and its presence is considered an equivalent of atherosclerotic disease. The aim of this study was to compare the characteristics between patients who developed CP at 5 years of follow-up versus those who did not.

Methods: Observational, longitudinal study. 37 patients with a diagnosis of RA who met the 2010 ACR / EULAR criteria were included. The presence of CP was identified by carotid ultrasound (US) doppler at the beginning and at the end of follow-up, separated by an average of 5 years. CP was defined as a focal thickening ≥0.5 mm or a carotid medial intima thickness (cIMT) ≥1.2 mm. Comparisons with the Chi square, Students't or the U-Mann Whitney tests were performed.

Results: Of the 37 patients, 21 (56.8%) developed CP after 5 years of follow-up. Demographic characteristics are shown in table 1. A significant difference was found in age (62.1 vs 55.6, p = 0.044), in the presence of dyslipidemia (5 vs 0, p = 0.047), Type 2 Diabetes Mellitus (T2DM) (5 vs 0, p = 0.047), and serum triglyceride levels (169.5 vs 112.0, p = 0.028). Image 1

Conclusion: Patients who developed CP were older, had a higher prevalence of T2DM and dyslipidemia, so emphasis should be placed on strict control of these cardiovascular risk factors. Carotid US should be individualized according to the cardiovascular risk of the patients.

Table 1. Clinical and demographic characteristics

	Carotid plaque formation during follow-up		*P value*
	Yes (n=21)	No (n=16)	
Age years at the end of follow-up, mean ± SD	62.1 ± 10.8	55.6 ± 8.1	**0.044**
Female gender, n (%)	19 (90.5)	15 (93.8)	NS
CVFR during the follow-up, (n%)			
HTN	13 (61.9)	5 (31.3)	0.065
Dyslipidemia	5 (23.8)	0 (0)	**0.047**
T2DM	5 (23.8)	0 (0)	**0.047**
Active smoking	1 (4.8)	1 (6.3)	NS
Overweight /Obesity	12 (63.2)	12 (80)	NS
Characteristics of AR			
Disease duration years, median (p25-p75)	14 (7-22)	9 (6-14.2)	NS
DAS28- ESR, median ± *SD*	5.5 ± 1.2	5.3 ± 1.3	NS
DAS28-PCR, median ± SD	4.0 ± 1.2	3.9 ± 1.4	NS
Treatment during the follow-up, n (%)			
MTX	17 (81.0)	13 (81.3)	NS
bDMARD	2 (9.5)	2 (12.5)	NS
Glucocorticoids	6 (35.3)	7 (46.7)	NS
Antihypertensive treatment	11 (52.4)	4 (25.0)	NS
Statins	4 (19.0)	2 (12.5)	NS
Laboratory parameters			
Total cholesterol (mg/dl), mean ± SD	172.0 ± 30.5	167.5 ± 24.8	NS
Triglycerides (mg/dl), median (p25–p75)	169.5 (118-206.9)	112.0 (102.7-133.2)	**0.028**
HDL- C (mg/dl), median (p25–p75)	52.1 ± 15.1	57.4 ± 14.0	NS
LDL- C (mg/dl)$_{sa}$ mean ± SD	91.1 (73-111.4)	90.9 (69.2-97.9)	NS
Positivity anti-CCP, n (%)	15 (71.4)	15 (93.8)	NS
Positivity FR, n (%)	16 (80.0)	15 (93.8)	NS
Initial Carotid Plaque, n (%)	1	2	-

SD, standard deviation; NS, not significant CVRF; Cardiovascular Risk Factors; HTN, hypertension; T2DM, Type 2 diabetes mellitus; *DAS28*, Disease Activity Score for 28 joints; ESR, erythrocyte sedimentation rate; CPR, C-reactive protein; MTX, methotrexate; bDMARDs, biologic disease-modifying anti-rheumatic drugs; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; anti-CCP, anti-cyclic citrullinated peptide; FR, rheumatoid factor.

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PANLAR2021-ABS-1252

CERVICAL SPINE INVOLVEMENT IN RHEUMATOID ARTHRITIS, PADRE BILLINI HOSPITAL, DOMINICAN REPUBLIC

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Objectives: To evaluate cervical spine involvement in rheumatoid arthritis

Methods: Observational, cross-sectional, case-control study on ambulatory patients of the rheumatology service of the Padre Billini Hospital, from November 2019 to November 2020, comparing RA patients and a 1: 1 matched control group according to sex and age. Inclusion criteria: > 18 years of age, diagnosis of rheumatoid arthritis according to the 2010 ACR / EULAR classification criteria, anteroposterior (AP), lateral and Waters cervical spine radiography. Data were examined with SPSS V23.

Results: 251 patients diagnosed with RA, 100 met the inclusion criteria, 96.2% female, mean age 54 + 13.2 years, mean diagnosis 7 + 4.3 years, 88% (88) positive rheumatoid factor, 33% (33) positive anti-CCP antibodies. 82% (82) use scDMARD, 70% (70) bDMARD, 18% (18) ctDMARD. Disease activity by DAS 28 demonstrated 57% (57) low activity, 20% (20) moderate activity, 15% (15) remission, 8% (8) high activity. The radiological findings reported in both groups: 60% (60) degenerative changes, only atlanto-axial subluxation was evidenced in the RA group 3% (3).

Conclusion: Our study found no difference in degenerative changes in the cervical spine; atlanto-axial subluxation was only observed in rheumatoid arthritis patients.

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PANLAR2021-ABS-1102

HIGHER PREVALENCE OF ECHOCARDIOGRAPHIC ABNORMALITIES IN PSORIATIC ARTHRITIS AND RHEUMATOID ARTHRITIS PATIENTS COMPARED TO CONTROLS

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Objectives: Psoriatic arthritis (PsA) is a chronic inflammatory arthropathy associated with cardiovascular abnormalities[1]. Echocardiography is a non-invasive tool useful in the detection of cardiac abnormalities, which may be the only

manifestation of cardiac involvement preceding a global dysfunction. However, echocardiographic differences between PsA patients, rheumatoid arthritis (RA) patients, and controls have not yet been well described. We aimed to examine the echocardiographic parameters in PsA patients and to compare them with RA patients and controls.

Methods: This cross-sectional, observational and comparative study, included thirty-eight patients (nineteen in each group), aged 40-75 years, with PsA and RA who fulfilled the CASPAR (Classification criteria for Psoriatic Arthritis) and the 2010 ACR/EULAR classification criteria, respectively, matched by age, gender and comorbidities with nineteen healthy controls. Exclusion criteria were a poor echocardiographic window, patients with previous atherosclerotic cardiovascular disease (ischemic heart disease, cerebrovascular accident or peripheral arterial disease), and pregnancy.

Transthoracic echocardiogram was performed and reviewed by 2 board-certified cardiologists, in all study subjects.

Comparisons were done with X^2, Kruskall Wallis or ANOVA.

Results: There were no statistically significant differences between the groups in terms of the demographic characteristics (Table 1). When comparing echocardiographic findings, a statistically significant difference was found in the prevalence of diastolic dysfunction, being more prevalent in PsA and RA patients compared with controls (52.6% vs 52.6% vs 5.3%, p = 0.002); likewise the presence of mild mitral valve regurgitation was higher (84.2% vs 53.6% vs 10.5%, p = 0.001) and mild pulmonary valve regurgitation (68.4% vs 10.5% vs 0%, p = 0.001). Prevalence of abnormal left ventricular geometry was higher in PsA and RA patients than controls (68.4% vs 63.2% vs 21.1%, p = 0.006)

Table 1. Comparison of demographic characteristics and echocardiographic findings between patients with PsA, RA and controls.

	PsA (n=19)	RA (n=19)	Controls (n=19)	p
Age, years ± SD	54.7 ± 7.7	55.4 ± 9.9	55.3 ± 5.9	NS
Female, n (%)	11 (57.9)	11 (57.9)	11 (57.9)	NS
Diabetes Mellitus	4 (21.1)	3 (15.8)	2 (10.5)	NS
Hypertension	10 (52.6)	8 (42.1)	7 (36.8)	NS
Dyslipidemia	10 (52.6)	4 (21.1)	7 (36.8)	NS
Active smoking	4 (21.1)	2 (10.5)	5 (26.3)	NS
Disease duration, years (p25-p75)	6 (4-14)	7 (5-18)	-	NS
DAS28-CRP, mean ± SD	2.2 ± 0.8	3.1 ± .8	-	**0.003**
Echocardiographic findigs				
Diastolic dysfunction, n (%)	10 (52.6)	10 (52.6)	1 (5.3)	**0.002**
LV mass index, g/m² (p25-p75)	78.9 (55.9-86.9)	73.7 (61.0-85.7)	69.5 (52.0-98.7)	**NS**
LVEF, ± mean SD	62.3 ± 6.1	59.7 ± 8.6	62.9 ± 6.1	NS
TAPSE, cm ± SD	21.8 ± 2.7	22.4 ± 2.7	23.7 ± 3.1	NS
Mild aortic regurgitation, n (%)	5 (26.3)	4 (21.1)	1 (5.3)	NS
Mild mitral regurgitation, n (%)	16 (84.2)	10 (52.6)	2 (10.5)	**<0.001**
Mild pulmonary regurgitation, n (%)	13 (68.4)	2 (10.5)	0 (0)	**<0.001**
Mild tricuspid regurgitation, n (%)	15 (83.3)	13 (76.5)	11 (57.9)	NS
LV geometry alterations, n (%)	13 (68.4)	12 (63.2)	4 (21.1)	**0.006**
Concentric remodeling, n (%)	12 (63.2)	10 (52.6)	4 (21.1)	**0.025**

NS, non-significant; DAS28-CRP, disease activity score using 28 joints and C reactive protein; LV, left ventricular; LVEF, left ventricular ejection fraction; TAPSE, tricuspid annular plane systolic excursion.

Conclusion: This study shows a high prevalence of echocardiographic abnormalities in PsA patients compared to the general population, of the same magnitude as in patients with RA. We emphasize the value of an echocardiogram for a complete cardiovascular evaluation and early detection of cardiac abnormalities in these patients.

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PANLAR2021-ABS-1220

LEFT VENTRICULAR ECCENTRIC HYPERTROPHY IN RHEUMATOID ARTHRITIS PATIENTS

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Objectives: Patients with Rheumatoid Arthritis (RA) have a higher prevalence of cardiovascular diseases[1] and a strong association with abnormalities in the left ventricle (LV) geometry. Both concentric and eccentric remodeling have been determined to be independent factors for sudden cardiac arrest in the general population with normal or slightly decreased ventricular function[2] but there is still controversy about the factors involved and the pathophysiology in patients with RA. The aim of the study is to determine the characteristics of LV geometry and its impact of RA.

Methods: A cross-sectional, observational, and comparative study of 52 RA patients that fulfilled ACR / EULAR 2010 classification criteria, aged 40-75 years. Controls were included and matched by age, gender, and comorbidities. Subjects were evaluated using a transthoracic echocardiogram performed and reviewed by two certified echocardiographers. Ventricular geometry was evaluated with indexed left ventricular mass and relative wall thickness. Distribution was evaluated with the Kolmogorov-Smirnov test. Descriptive analysis was done using measures of central tendency. Chi square, Students' t and Mann-Whitney U tests were used for comparison between groups. A logistic binary regression was performed with the traditional cardiovascular risk factors (CVRFs), age and RA diagnosis.

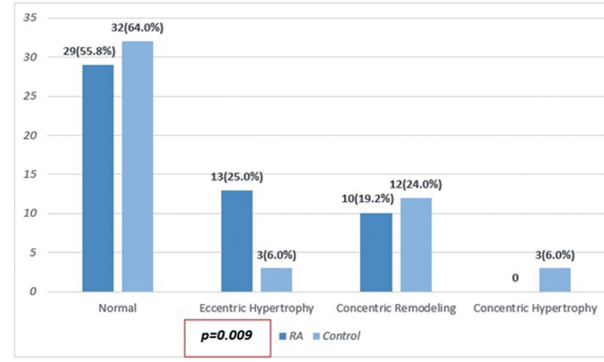
Results: No significant differences were found in the traditional CVRFs (diabetes mellitus, dyslipidemia, active smoking, and hypertension) (Table 1). Most of the subjects reported normal geometry in both groups (55.8% for RA group vs 64.0% for controls). A higher prevalence of eccentric hypertrophy was found in the RA group, 13 (25%) subjects versus 3 (6%) in the control group, p = 0.009 (figure 1). The binary regression showed that the diagnosis of RA was the only independent risk factor for the presence of eccentric hypertrophy, OR 7.22 95% CI (1.68-31.02, p = 0.008).

Table 1. Demographic characteristics and echocardiographic findings.

	RA (n=52)	Control (n=50)	p
Age, years ± DE	51.4 ±6.2	51.1 ± 5.5	NS
Women, n (%)	51 (98.1)	49 (98.0)	NS
Active smoking, n (%)	8 (15.4)	8 (16.0)	NS
Dyslipidemia, n (%)	11 (21.2)	13 (26.0)	NS
Type 2 Diabetes Mellitus, n (%)	5 (9.6)	5 (10.0)	NS
HTN, n (%)	8 (15.4)	10 (20.0)	NS
BMI, kg/m² (p25-p75)	27.8 (24.5-31.4)	28.3 (25.4-30.3)	NS
BSA, median (p25-p75)	1.7 (1.6-1.8)	1.8 (1.6-1.9)	**0.003**
Systolic blood pressure, mmHg (p25-p75)	119.5 (110.0-127.5)	120.0 (110.7-130.0)	NS
Echocardiography findings			
LVPWTd, median (p25-p75)	0.9 (0.8-1.0)	0.9 (0.8-1.0)	NS
LVIDd, median (p25-p75)	4.8 (4.3-5.2)	4.6 (4.5-4.9)	NS
LV mass, median (p25-p75)	131.2 (119.5-155.7)	131.2 (113.2-154.3)	NS
LV mass index, median (p25-p75)	78.6 (69.7-95.6)	76.0 (66.7-84.6)	NS
RWT, mean ± SD	0.4 ± 0.09	0.4 ± 0.07	NS

NS, no significant; BMI, body mass index; BSA, body surface area; LVPWTd, left ventricular posterior wall thickness at end-diastole; LVIDd, left ventricular internal dimension at end-diastole; RWT, relative wall thickness.

Figure 1. Abnormalities in left ventricular geometry in patients with RA.



Conclusions: There is a higher prevalence of eccentric remodeling in patients with RA independently of traditional CVRF. The diagnosis of RA is an independent risk factor for the presence of eccentric hypertrophy that is associated with higher mortality. Treatment of cardiovascular comorbidities should be intensified in those patients with abnormalities in LV geometry in order to prevent cardiovascular diseases such as heart failure.

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PANLAR2021-ABS-1385

THYROID DYSFUNCTION IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To characterize the thyroid function of patients with rheumatoid arthritis (RA) and its relationship with clinical and laboratory features, as well as cardiovascular risk biomarkers (CVR).

Methods: Descriptive, cross-sectional study in Paraguayan patients with RA according to the 1987 ACR and 2010 ACR / EULAR criteria. This study had two stages: the first consisted of a standardized questionnaire according to the variables included in the Cardiovascular Risk project (PINV15 -0346), of the National Council of Sciences and Technologies. The second part was a laboratory workup for CVR biomarkers (eg endothelin, TNF alpha, E-selectin, homocysteine, apolipoprotein, fibrinogen and ultrasensitive PCR). The reference values of the thyroid tests were established as TSH 0.35-4.94 mIU/mL, FT4: 0.89-1.76 ng/mL. Hypothyroidism was defined as increased TSH level, subclinical as increased TSH level with normal FT4, frank hypothyroidism as decreased TSH and FT4 level. SPSS version 23 was used for data analysis. Quantitative variables were expressed as means and qualitative variables as frequencies. For the comparison between dichotomous variables, the chi-square test was used and for continuous variables, student's t test; a $p < 0.05$ was considered statistically significant.

Results: 100 patients were included: 87% women, mean age was 51.36 ± 11.03 years; 84.4% positive for anti-CCP antibodies. Mean TSH value was 2.31 ± 1.86, and FT4 was 1.06 ± 0.22. 9 (9.7%) patients presented altered TSH values. Only 5 patients (5.4%) had hypothyroidism. Patients with hypothyroidism more frequently presented high DAS 28 (60% vs 7.9%, p = 0.000), CDAI (18.5 ± 6.5 vs 8.5 ± 9.7, p = 0.04), higher physician's global score (42 ± 16.4 vs 21.9 ± 16.5, p = 0.009), and had a disease duration <12 months (20% vs 1.2%, p = 0.005). Less frequently they presented positive anti CCP (50% vs 85.2%, p = 0.006). Among the serum biomarkers, E-selectin was more frequently altered (p = 0.04) but no significant differences were found either with other markers or with the disease features, treatment course, use of corticosteroids, and cardiovascular risk scales. These data are depicted in Table 1.

Table 1. Thyroid dysfunction in patients with rheumatoid arthritis

Thyroid disfunction	TSH level (mIU/mL)	FT4 level (ng/mL)	Number of patients
Euthyroidism	0,35-4,94	0,89-1,76	84
Subclinical hypothyroidism	>4,94	0,89-1,76	3
Subclinical hyperthyroidism	<0,35	0,89-1,76	4
Frank hypothyroidism	>4,94	<0,89	2
Frank hyperthyroidism	<0,35	>1,76	0

Conclusion: A small percentage of RA patients with abnormal thyroid function was found. Patients with hypothyroidism presented an association with disease activity, shorter disease duration, and mostly altered E-Selectin. Regular monitoring of thyroid function should be considered in patients with RA.

PANLAR2021-ABS-1405

CORONAVIRUS DISEASE 2019 (COVID-19) PANDEMIC EFFECT ON DISEASE ACTIVITY, DEPRESSIVE SYMPTOMS, AND FUNCTIONALITY IN AN AMBULATORY CLINIC-BASED COHORT OF RA PATIENTS IN BOGOTÁ, COLOMBIA

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Objectives: To evaluate changes in terms of disease activity, functionality and depressive symptoms in an ambulatory clinic-based cohort of Colombian Rheumatoid arthritis patients after the COVID-19 pandemic onset.

Methods: We conducted a medical records review cohort study. Mean disease activity (DA) was calculated for a before pandemic period (Mar. 2019 – Mar. 2020) using the DAS28-ESR and up to 12 months after the pandemic onset (Sep. 2020 – Mar. 2021) through the RAPID-3 [1]. Both average scores were used to categorize our patients as having high-, moderate-, low- DA, or remission. Alongside, functionality and depressive symptoms were assessed through the HAQ and the PHQ9 which after the onset of the pandemic, were self-administered through a web-based tool. Differences on proportions (2 sample X^2 test) were calculated and tested for statistical significance.

Results: Our population was constituted by 584 patients of whom 78,6% were women and 58,4% presented with low DA or remission at baseline; mean age was 53,2 years (SD 13,12) and preserved functionality (HAQ score ≤ 0.375) was seen on 39,9% of cases. After the onset of the pandemic, over half of our patients were categorized as having moderate and high DA (Fig. 1) and when comparing before and after the pandemic onset, differences of proportions were statistically significant for patients reaching therapeutic goals (58,4% vs 34,2%: dif. of 24,1%; 95% CI 18,4% – 29,8%; p < 0,0001) and for patients with preserved functionality (39,9% vs 32,7%: dif. of 7,2%; 95% CI 1,5% – 12,9%; p 0,013). When focusing on the patients who presented at remission before the pandemic, 46,8% showed worsening, being categorized after the pandemic onset with high or moderate DA (Table 1). Interestingly, even when DA was worse, functionality was preserved for 50,2% (n = 119) of them; furthermore, according to the PHQ-9 score [2], results are somewhat counterintuitive showing what seems to

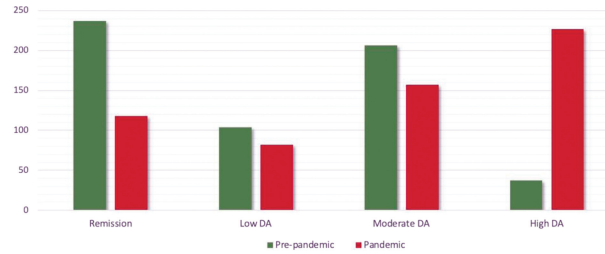

Figure 1. Disease activity (DA) changes before and during COVID-19 pandemic.

DA	Pre-pandemic (%)	Pandemic (%)	Difference (%)	p value	Pre-pandemic Mean PHQ-9 score	Pandemic Mean PHQ-9 score	Mean Difference	p value
Remission	40,6	20,2	20,4	< 0,001	3,54	1,75	1,79	< 0,001
Low DA	17,8	14,0	3,8	0,093	5,63	2,95	2,67	< 0,001
Moderate	35,3	26,9	8,4	0,002	7,29	3,98	3,31	< 0,001
High DA	6,3	38,9	-32,5	< 0,001	11,47	8,41	3,06	0,004

Table 1. Disease activity (DA) and depressive symptoms changes before and during COVID-19 pandemic, categorized by DA.

be an improvement in depressive symptoms after the pandemic onset.

Conclusions: This study contributes to our perception of the COVID-19 pandemic as an urgent challenge not only for RA patients but also for rheumatologists, when acknowledging the unmistakable worsening in terms of higher disease activity and a relatively decrease in functionality. Further research with a longer follow-up should be undertaken to investigate the role of distinct risk or protective variables, the potential explanations on adaptative coping mechanisms and mental health well-being.

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PANLAR2021-ABS-1407

PRESENCE OF EROSIONS AND CARDIOVASCULAR RISK MARKERS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To associate the presence of bone erosions in patients with rheumatoid arthritis (RA) with clinical features, ultrasound and serum biomarkers of CV risk.

Methods: Descriptive, cross-sectional study in patients diagnosed with RA (ACR87 criteria, since 2010 ACR / EULAR). This study was carried out in 2 stages: the first one was a standardized questionnaire with the variables included in the CV Risk project in IMID (PINV15-0346), of the National Council of Sciences and Technologies (CONACYT). In the second part, serum samples were taken for the determination of CVR biomarkers (e.g. endothelin, TNF alpha, E-selectin, homocysteine, apolipoprotein, fibrinogen and ultrasensitive PCR), carotid ultrasound and Vivid 7 Doppler echocardiogram from GE, USA. The SPSS version 23 statistical program was used. The quantitative variables were expressed as means and the qualitative variables as frequencies. For the comparison between dichotomous variables, the Chi-square test was used and for continuous variables the Student's t test. A $p < 0.05$ was considered significant.

Results: 100 patients were included, 87% women, with a mean age of 51.36 ± 11.03 years, and disease duration of 130.9 ± 102.64 months. 43.3% had bone erosions. Patients with bone erosions had a mean greater diagnostic delay (36.39 ± 62.76 vs 12.5 ± 15.5, p = 0.01), higher mean disease duration (176.22 ± 129.37 vs 101.8 ± 69.03, p = 0.01) and a higher average number of painful joints of 2.75 ± 4.37 (p = 0.04). Likewise, they presented with greater frequency of alterations in the carotid ultrasound (51.72% vs 24.13% p = 0.03). When making comparisons between serum biomarkers, a greater abnormality was found in apolipoprotein B levels (12.12% vs 0%, p = 0.02), and average fibrinogen (649.21 ± 149.47, p = 0,05); no significant differences were found with the other biomarkers.

Conclusion: Patients with bone erosions presented with greater diagnostic delay, longer duration of disease, greater number of painful joints, greater frequency of carotid ultrasound alteration, and greater abnormalities of Apolipoprotein B levels. Early diagnosis and treatment are essential in order to be able to control the disease and improve prognosis.

PANLAR2021-ABS-1092

EFFICACY AND SAFETY OF GUSELKUMAB, A MONOCLONAL ANTIBODY SPECIFIC TO THE P19-SUBUNIT OF INTERLEUKIN-23, THROUGH 2YEARS: RESULTS FROM A PHASE 3, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY CONDUCTED IN BIOLOGIC-NAIVE PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS

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Objectives: Guselkumab (GUS) has demonstrated efficacy for joint and skin symptoms, inhibition of structural damage progression, and safety in biologic-naïve PsA pts through Week (W)24 and 1 year of the phase-3 DISCOVER-2 study (Mease PJ, et al. Lancet 2020; McInnes IB, et al. Arthritis Rheumatol 2020). This study assessed GUS efficacy and safety through 2 years.

Methods: Biologic-naïve adults with active PsA (≥5 swollen joint count + ≥5 tender joint count; CRP ≥0.6 mg/dL) were randomized 1:1:1 to GUS 100 mg every 4 W (Q4W); GUS 100 mg at W0, W4, Q8W; or placebo (PBO) with crossover to GUS 100 mg Q4W (PBO → Q4W) at W24. Clinical efficacy (ACR/PASI/IGA/HAQ-DI) was assessed through W100 with non-responder imputation (NRI) for missing data. PsA-modified van der Heijde Sharp (vdH-S) scores were derived from blinded radiographs at W0, W24, W52, W100 (or at d/c); adverse events (AEs) were reported through W112.

Results: Among 739 randomized pts, 96% continued study agent at W24; 93% continued at W52; 88% completed W100. NRI ACR20 response rates continued to increase after W24, and at W100 were: Q4W, 76%; Q8W, 74% (Fig). Similar response patterns were seen for ACR50/70, HAQ-DI and PASI90/100 (Table); IGA0/1 and PASI75 response rates were consistent through W100 in Q4W/Q8W. W100 data for PBO → Q4W were consistent with Q4W/Q8W (Table). Low rates of radiographic progression (measured by vdH-S scores) were observed during W52-100, for Q4W (n = 227; 0.75) and Q8W (n = 232; 0.46). For PBO → Q4W (n = 228), radiographic progression was: W0-24 (on PBO), 1.12; W24-100 (on Q4W), 0.51; W52-100, 0.13 (Figure 1). Through W112, incidences of Aes, serious Aes (SAEs), Aes leading to d/c, infections, serious infections, and injection site reactions were generally consistent with the PBO-controlled period and through 1 year. In Q4W (n = 245), Q8W (n = 248), and PBO → Q4W (n = 238) groups, 9%, 9%, 7% pts had ≥1 SAE; 2%, 3%, 3% had ≥1 serious infection; 2 Q8W pts (fungal esophagitis, disseminated herpes zoster) and 1 PBO → Q4W pt (listeria meningitis) had opportunistic infections; 1 PBO → Q4W pt died (traffic accident); 1 PBO-randomized pt had IBD; no pt had anaphylactic/serum sickness reaction or active TB.

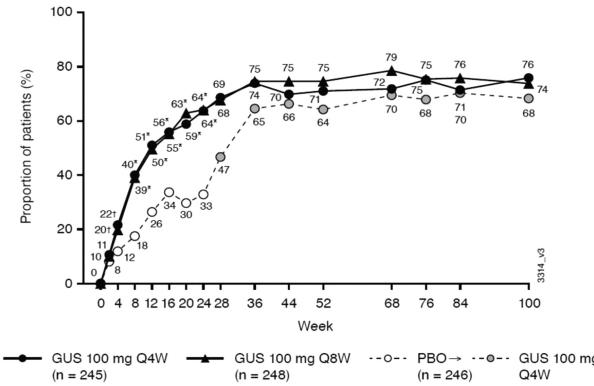
Table: Efficacy Through W100 (NRI)

Data are %	GUS Q4W			GUS Q8W			PBO→GUS Q4W		
	W24	W52	W100	W24	W52	W100	W24	W52	W100
Analysis set, n		245			248			246	
ACR 50	33	46	56	32	48	55	14	41	48
ACR 70	13	26	35	19	28	36	4	18	30
BL HAQ-DI ≥0.35, n		228			228			236	
Improvement ≥0.35[a]	56	59	63	50	58	64	31	48	56
BL ≥3% BSA psoriasis + IGA ≥2, n		184			176			183	
IGA0/1	69	80	76	71	74	72	19	79	77
PASI75	78	87	83	79	86	82	23	83	80
PASI90	61	77	74	69	74	70	10	72	77
PASI100	45	58	59	45	53	53	3	52	61

[a]≥0.35 improvement among pts with HAQ-DI ≥0.35 at BL

ACR, American College of Rheumatology; BL, Baseline; BSA, body surface area; GUS, guselkumab; HAQ-DI, Health Assessment Questionnaire Disability Index; IGA, Investigator Global Assessment; NRI, nonresponder imputation; PASI, Psoriasis Area and Severity Index; PBO, placebo; Q4W, every 4 weeks; Q8W, every 8 weeks; W, week.

Figure. ACR 20 Response Through W100 (NRI)
(Note: Patients randomized to PBO crossed over to GUS 100 mg Q4W at W24)



*p ≤ 0.001; †p < 0.05

ACR, American College of Rheumatology; GUS, guselkumab; PBO, placebo; Q4W, every 4weeks; Q8W, every 8 weeks; W, week.

Conclusion: In biologically-naïve PsA pts, GUS benefits for joint and skin symptoms, physical function, and low rates of radiographic progression persisted through 2 years. GUS safety in PsA through 2 years was comparable to safety at 6 months and 1 year, similar between Q4W and Q8W, and consistent with GUS safety in psoriasis.

PANLAR2021-ABS-1186

HIGHER ANTI-CCP ANTIBODY TITERS ARE ASSOCIATED WITH WOOD SMOKE EXPOSURE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: Wood smoke exposure is a risk factor for the development of chronic obstructive pulmonary disease (COPD), lung cancer and cardiovascular disease and it has also been linked to higher anti-CCP antibodies in patients with rheumatoid arthritis (RA) and COPD. The objective of the present study is to report the correlation between anti-CCP antibodies, IgG, IgM and IgA rheumatoid factor (RF) to wood smoke exposure in patients with RA. Additionally, evaluate the impact of disease activity, biomass exposure, and disease duration on anti-CCP antibody levels.

Methods: A cross-sectional, observational study was designed based on a cohort of Hispanic RA patients. All fulfilled the 2010 ACR/EULAR classification criteria for RA. Biomass smoke exposure was expressed using the biomass exposure index (BEI) calculated from the mean of exposed hours per day multiplied by the number of years exposed. Subjects were divided into two groups: those exposed to wood smoke with BEI ≥1 and subjects not exposed to wood smoke. They were matched by age, gender, and comorbidities. Anti-CCP antibodies and RF were measured by ELISA with cutoff points of <5 U/mL and < 20 U/mL respectively.

Results: A total of 318 subjects were included, 159 (50%) of them had a history of exposure to wood smoke. Anti-CCP antibody positivity was present in 102 (64.2%) with a median titer of 97.1 U/mL (1.7-198) in the RA exposed group, and in 89 (56%) with a median titer of 8.5 U/mL (1.1-145) in the RA non-exposed group. A significant difference was found in anti-CCP antibody titers between groups (p = 0.003). (Table 1). Spearman's rho showed a small but statistically significant correlation between BEI and anti-CCP antibody titers (rho = 0.170, p = 0.002). Biomass exposure was independently related to higher anti-CCP antibody titers (B = 35.4, p < 0.001).

Table 1. Comparison of demographic, seropositivity and clinical characteristic between patients with RA exposed and matched non-exposed RA patients.

Characteristics	RA exposed (n=159)	RA not exposed (n=159)	p
Age, years ± SD	56.7 ± 8.7	55.4 ± 8.1	NS
Female	148 (93.1)	148 (93.1)	NS
BEI, median (p25-p75)	35 (15-90)	0	
Disease duration, years median (p25-p75)	9 (3.5 – 15.1)	6.8 (2.8-14.6)	NS
DAS 28-CRP, median (p25-p75)	3.37 (2.11- 4.4)	3.17 (2.09-4.2)	NS
Dyslipidemia	50 (31.4)	43 (27)	NS
Hypertension	55 (34.6)	48 (30.2)	NS
Diabetes Mellitus	24 (15.1)	23 (14.5)	NS
Active smoking	8 (5)	8 (5)	NS
Seropositivity			
Anti-CCP antibody positivity, n (%)	102 (64.2)	89 (56)	0.137
Anti-CCP antibody titers, median (p25-p75)	97.1 (1.7-198)	8.5 (1.1-145)	**0.003**
IgG RF positivity, n (%)	31 (19.5)	24 (15.1)	0.299
IgG RF titers, median (p25-p75)	5 (2-13)	4.9 (2-13)	0.529
IgM RF positivity, n (%)	136 (85.5)	126 (79.2)	0.141
IgM FR titers, median (p25-p75)	198 (41-200)	177 (28-200)	0.067
IgA RF positivity, n (%)	98 (61.6)	92 (57.9)	0.493
IgA FR titers, median (p25-p75)	52.9 (9.3-193)	33(5-159)	0.060

NS, non-significant; RA, rheumatoid arthritis; BMI, body mass index; BEI, biomass exposure index; DAS28-CRP, disease activity score using 28 joints-C-reactive protein; anti-CCP, anti-cyclic citrullinated peptide; RF, rheumatoid factor.

Conclusion: RA patients exposed to wood smoke had higher titers of anti-CCP antibodies than non-exposed RA patients. Furthermore, biomass exposure was shown to be independently related to higher titers of anti-CCP antibodies.

Reference:

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PANLAR2021-ABS-1187

HIGHER TITERS OF RHEUMATOID FACTOR AND ANTI-CYCLIC CITRULLINATED PEPTIDE ANTIBODIES ARE ASSOCIATED WITH LEFT VENTRICULAR GEOMETRY ABNORMALITIES IN RHEUMATOID ARTHRITIS PATIENTS

Jose R. Azpiri-Lopez[1], Iris J. Colunga-Pedraza[2], Dionicio A. Galarza-Delgado[2], Natalia Guajardo-Jauregui[2], Alejandra B. Rodriguez-Romero[2], Alejandro Meza-Garza[1], Julieta Loya-Acosta[2], Salvador Lugo-Perez[1], Jesus A. Cardenas-de la Garza[2], Alan J. De Leon-Yáñez[1], and Catalina J. Andrade-Vazquez[1]. *[1]Cardiology Service, [2]Rheumatology Service, Hospital Universitario "Dr. Jose E. Gonzalez", Monterrey, México.*

Objectives: Rheumatoid arthritis (RA) patients have a higher risk of developing left ventricular (LV) geometry abnormalities which can result in cardiac death [1]. High titers of rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) antibodies are associated with a worse cardiovascular (CV) prognosis in RA patients [2].

The aim of this study was to assess the association between RF and anti-CCP antibody titers and LV geometry abnormalities detected by a transthoracic echocardiogram.

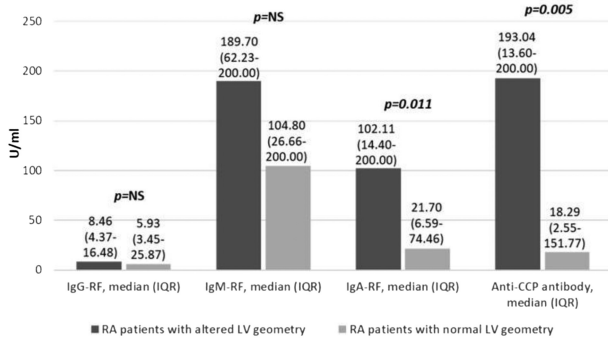
Methods: This was a cross-sectional, observational, and comparative study. Patients aged 40-75 years who fulfilled the 2010 ACR/EULAR classification criteria underwent a transthoracic echocardiogram. Patients with RA and LV geometry abnormalities were matched to RA-patients without LV geometry abnormalities, by age, gender, comorbidities and disease characteristics. LV geometry was evaluated with LV mass index and relative wall thickness. A blood sample was taken to measure RF and anti-CCP antibody titers. Comparisons were done with χ^2 test for qualitative variables and Students' t test and Mann-Whitney's U test for quantitative variables. A p-value <0.05 was considered statistically significant.

Results: A total of 82 RA-patients were included, 41 patients with LV geometry abnormalities and 41 patients without LV geometry abnormalities. Of the patients with LV geometry abnormalities, 37 (90.2%) presented LV concentric remodeling and 4 (9.8%) LV concentric hypertrophy. There were no differences in the demographic and clinical characteristics between both groups (Table 1). Patients with altered LV geometry showed higher titers of IgA-RF (102.11 vs 21.70, p = 0.011) and anti-CCP antibodies (193.04 vs 18.29, p = 0.005) (Figure 1).

Table 1. Demographic and disease characteristics.

	RA patients with LV geometry abnormalities (n=41)	RA patients without LV geometry abnormalities (n=41)	p
Age years, mean ± SD	53.12 ± 7.62	52.34 ± 7.74	NS
Women, n (%)	39 (95.1)	39 (95.1)	NS
T2DM, n (%)	7 (17.1)	4 (9.8)	NS
HTN, n (%)	13 (31.7)	10 (24.4)	NS
Dyslipidemia, n (%)	9 (22.0)	11 (26.8)	NS
Active smoking, n (%)	4 (9.8)	3 (7.3)	NS
Obesity, n (%)	11 (26.8)	14 (34.1)	NS
BMI kg/m^2, median (IQR)	27.95 (25.33-31.45)	28.42 (25.84-32.00)	NS
Disease duration years, median (IQR)	10.37 (2.72-17.80)	6.40 (3.43-13.29)	NS
CDAI, median (IQR)	10.00 (3.00-16.50)	14.00 (2.00-22.00)	NS
DAS28-CRP, mean ± SD	3.52 ± 1.42	3.09 ± 1.11	NS
Treatment			
MTX, n (%)	33 (80.5)	34 (82.9)	NS
Glucocorticoids, n (%)	25 (61.0)	23 (56.1)	NS
Antihypertensive, n (%)	13 (31.7)	8 (19.5)	NS
Statins, n (%)	6 (14.6)	4 (9.8)	NS

RA, rheumatoid arthritis; LV, left ventricular; NS, not significant; T2DM, type 2 diabetes mellitus; HTN, hypertension; BMI, body mass index; CDAI, clinical disease activity index; DAS28, disease activity score using 28 joints; ESR, erythrocyte sedimentation rate; CPR, C-reactive protein; MTX, methotrexate.



Conclusion: RA patients with abnormalities in LV geometry had higher titers of IgA-RF and anti-CCP antibodies. This suggests an association between antibody titers and CV prognosis in RA patients. Rheumatologists should take these data into account when evaluating CV risk in RA patients, assessing the possibility of performing an echocardiogram for early detection of CV abnormalities and an opportune treatment in this group of patients.

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PANLAR2021-ABS-1216

PULSE PRESSURE AS A PRACTICAL INDICATOR OF SUBCLINICAL ATHEROSCLEROSIS IN RHEUMATOID ARTHRITIS

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Objectives: Pulse pressure (PP) is defined as the difference between systolic and diastolic blood pressure and represents arterial compliance and reflective properties of blood flow (1). It is well known that gender, age, and race / ethnicity are intrinsic patient factors that influence PP. Brachial PP has recently been associated with markers of subclinical cardiovascular disease after adjustment for traditional cardiovascular risk factors in the general population (2). However, this relationship has not been studied in patients with rheumatoid arthritis (RA) and its identification would allow earlier adjustments of cardiovascular therapies in this high-risk group.

The aim of this study was to examine the difference in PP in patients with RA and in healthy controls. Additionally, to examine the difference between patients with and without carotid plaque (CP).

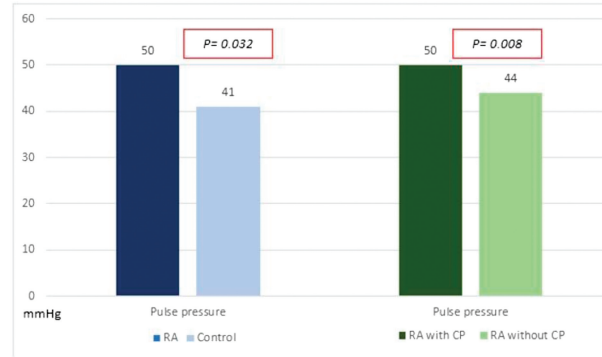
Methods: A cross-sectional, observational, and comparative study of 92 patients with RA aged 40-75 years and who fulfilled ACR/EULAR 2010 classification criteria. Also, we included 92 controls without RA, matched by gender, age and comorbidities. A carotid ultrasound was performed in patients with RA and they were divided into two subgroups according with the presence or absence of CP. A blood pressure measurement was taken after 15 minutes of rest on the right arm in all patients. Distribution was evaluated with the Kolmogorov-Smirnov test. Descriptive analysis was done using measures of central tendency. Chi square, Students' t and Mann-Whitney U tests were used for comparisons between groups.

Table 1. Demographic characteristics.

	RA (n=92)	Control (n=92)	p
Women, n (%)	85 (92.4)	85 (92.4)	NS
Age, years ± SD	58.0 (55.0-63.0)	56.5 (54.0-61.0)	NS
T2DM, n (%)	17 (18.5)	15 (16.3)	NS
Hypertension, n (%)	33 (35.9)	33 (35.9)	NS
Dyslipidemia, n (%)	30 (32.6)	29 (31.5)	NS
Obesity, n (%)	30 (32.6)	31 (33.7)	NS
Active smoking, n (%)	11 (12.0)	20 (21.7)	NS
	RA patients with CP (n=39)	**RA patients without CP (n=53)**	***p***
Women, n (%)	36 (92.3)	49 (92.5)	NS
Age, years ± SD	60.13 ± 5.98	58.08 ± 7.00	NS
T2DM, n (%)	9 (23.1)	8 (15.1)	NS
Hypertension, n (%)	16 (41.0)	17 (32.1)	NS
Dyslipidemia, n (%)	13 (33.3)	17 (32.1)	NS
Obesity, n (%)	15 (38.5)	15 (28.3)	NS
Active smoking, n (%)	6 (15.4)	5 (9.4)	NS
Disease duration, years (p25-p75)	8.44 (3.00-15.50)	12.86 (4.66-19.66)	NS

NS, no significant; T2DM, type 2 diabetes mellitus; CP, carotid plaque.

Figure 1. Comparison of pulse pressure between RA and controls and, RA with and without carotid plaque



Results: We found no statistical difference between groups regarding age, gender and, comorbidities (type 2 diabetes mellitus, hypertension, dyslipidemia and, active smoking) (Table 1). There was a significant difference in PP between patients with RA and controls (50 mmHg vs 41 mmHg respectively, p = 0.032). Patients with RA had a significant difference in PP in patients with and without CP (50 mmHg vs 44 mmHg respectively, p = 0.008) (Figure 1). By binary logistic regression, PP was the only independent factor for the presence of CP in patients with RA, OR 1.054 (95% CI 1.008-1.101, p = 0.020).

Conclusions: Patients with RA had a higher PP than controls. Binary logistic regression showed PP as the only independent factor for the presence of subclinical atherosclerosis in patients with RA. PP is a parameter that all rheumatologists should consider when evaluating cardiovascular risk in patients with RA.

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PANLAR2021-ABS-1285

RHEUMATOID ARTHRITIS, A SYSTEMIC INFLAMMATORY DISEASE PRESENTS EXTRA-ARTICULAR MANIFESTATIONS

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Objectives: To determine the frequency of extra-articular manifestations (MExA) in patients with RA, to identify the most frequent and their association with antibodies against citrullinated cyclic peptides (anti-CCP).

Methods: A descriptive and cross-sectional study was carried out in 101 patients with a diagnosis of RA, who were treated in the protocolized consultation of the Rheumatology service, between August and December 2019.

Sociodemographic characteristics were identified such as: age, sex, RA duration, smoking. The presence of MExA was assessed by questioning, physical examination and the use of complementary tests. Disease activity was evaluated using the DAS28 instrument with erythrocyte sedimentation; the titers of anti-CCP antibodies in the plasma of the patients were determined by an ELISA-type assay.

Results: Extra-articular manifestations were present in 38 patients for 37.6% of the cases, the most frequent were subcutaneous nodules in 37 patients, and anemia in 35, which constituted 36.6% and 34.7% of the cases, respectively. 78 patients were positive for anti-CCP, 77.2% of the sample; there was no association between the presence of anti-CCP antibodies and the activity of the disease, however there was a significant association between the presence of these antibodies and the occurrence of MExA $p < 0.0001$. The association between anti-CCP levels and the number of MExA present was also significant, $p = 0.0018$.

Conclusion: Extraaaticular manifestations were associated with the presence of anti-CCP antibodies.

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PANLAR2021-ABS-1286

BELIEFS ABOUT THE DISEASE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To evaluate the beliefs about their disease in patients with Rheumatoid arthritis (RA) using the Questionnaire for Arthritis Dialogue (QuAD).

Methods: Multicenter, analytical, observational, cross-sectional study. Consecutive RA patients ≥18 years of age were included. Sociodemographic data and characteristics of the disease were recorded. Depression and anxiety symptoms were assessed using Hospital Anxiety and Depression Scale (HADS). All patients completed the QuAD, a self-reported questionnaire developed to assess rheumatoid arthritis patients' beliefs about their disease. It includes 21 beliefs grouped into 6 domains (psychological factors, genetic factors, physical activity, diet, other lifestyle factors and miscellaneous factors). Patients must state whether they agree or not with each belief. The reason was asked for every unanswered question. Statistical analysis: Population characteristics were described with means, medians, standard deviation (SD) and interquartile range (IQR) for numerical variables, and absolute and relative frequencies for categorical variables. The percentages of the different items of the questionnaire are described.

Results: Three hundred sixty-nine patients were included, 87.5% were women. The highest level of education achieved was 10.1 years (SD 3.7). Median disease duration was 120 months (IQR 48-207). Median DAS28 and HAQ-A were 3.5 (IQR 2.6-4.8) and 1 (IQR 0.3-1.6), respectively. Associations between patient characteristics and individual lifestyle beliefs were assessed using multivariate analysis (Table 1). More than half of the patients expressed uncertainty and concern about the course of their disease (n = 255, 69.1%) and did not believe that smoking (active or passive) was a triggering factor of the disease (71.8%), and the same occurred with other factors. (Table 2). The proportion of lack of response for any item ranged from 0.3 to 6.2%, the most frequent reason was the lack of opinion about the topic.

Table 1

Multivariate Analysis	OR (IC95)
Patients with a family history of RA had:	
- 6.67 times the chance to believe that the disease is associated with a genetic cause.	6,67 (3.81-9.20)
- 1.92 times the chance to believe that doing physical activity or some sport reduces disease flares.	1.92 (1.18-3.73)
Patients with prior knowledge of the disease had:	
- 50% lower chance of believing that flares are triggered by changes in the weather.	0.50 (0.15-0.83)
Patients with a HADS-D suggestive of depression had:	
- 3.32 times the chance-to be concerned about the course of their disease.	3.32 (1.98-4.83)
- 2.08 times the chance to be afraid of transmitting the disease to their children.	2.08 (1.25-3.90)
- 3.08 times the chance to believe that their illness was triggered by excessive physical exertion.	3.08 (2.17-4.72)
Patients with a HADS-A suggestive of anxiety had:	
- 2.11 times the chance to be afraid of transmitting the disease to their children.	2.11 (1.88-3.03)
- 1.81 times the chance to believe that diseases flares were triggered by a psychological factor.	1.81 (1.32-2.29)
Patients with a high educational level had:	
- 2.02 times the chance to believe that doing physical activity or some sport reduces diseases flares.	2.02 (1.83-3.19)
- 53% lower chance to believe that their illness was triggered by environment factors.	0.47 (0.34-0.65)
- 62% lower chance to believe that their illness was triggered by alcohol use.	0.38 (0.25-0.79)

OR: Odds Ratio, CI95: 95 Confidence Interval. Hospital Anxiety and Depression Scale (HADS).

Table 2

QuAD			
A HIGH PERCENTAGE OF PATIENTS BELIEVED:	N (%)	A HIGH PERCENTAGE OF PATIENTS DID NOT BELIEVE:	N (%)
. That not knowing how their disease will evolve causes concern about it.	255 (69)	. That RA was triggered by: - A vaccine	347 (94)
. That the disease flares were triggered by psychological factors.	223 (60.4)	- Dietary factors	330 (89.4)
		- Alcohol	329 (89.2)
. That their illness was triggered by an emotional shock.	207 (56)	. That smoking (active or passive) is a trigger for RA.	265 (71.8)

Conclusion: It is important to understand RA patients' beliefs about their disease and discuss those with them, in order to modify behaviors that have no scientific foundation and optimize the quality of their care. QuAD proved to be a useful tool to achieve this.

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PANLAR2021-ABS-1290

OBESITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: The objective of the study was to determine the frequency of obesity in patients with RA and its relationship with clinical and serological characteristics and with cardiovascular (CV) risk factors.

Methods: Descriptive, cross-sectional study in a cohort of patients with RA, who met ACR 1987 criteria and ACR / EULAR since 2010. It was carried out in 2 phases: the first included a standardized questionnaire according to the variables included in the project "Cardiovascular Risk in IMID (PINV15-0346), of the National Council of Sciences and Technology (CONACYT). In the second part,

serum samples were taken to a specialized laboratory for the determination of CV risk biomarkers (e.g. endothelin, TNF alpha, E-selectin, homocysteine, apolipoprotein, fibrinogen and ultrasensitive CRP). The quantitative variables were presented as means and their respective standard deviations, and the qualitative variables as frequencies. For the comparisons between variables, Chi square was used for the dichotomous ones and Students' t for the continuous ones. The statistical program SPSS 23 was used. Statistical significance was set at $p \leq 0.05$.

Results: 100 patients were included, 87% were women, with a mean age of 51.36 ± 11.03 years, and mean disease duration of 130.9 ± 102.64 months. 13% were smokers and 54% were sedentary. Mean DAS 28 score was 2.9 ± 1.1, 28.6% were in remission. Average weight was 75.75 ± 16.14 kg, height was 1.58 ± 14.9 meters, BMI 28.2 ± 4.8, hip was 103.6 ± 10.9 cm, and abdominal circumference was 92.1 ± 12.7 cm. 30% of the patients were obese, 45% overweight, and 25% had normal weight. Obese patients had a higher frequency of heart failure (6.47% vs 0%, p = 0.029), and Metabolic Syndrome (51.7% vs 10.1%, p = 0.000). Most of them had low activity score (44.8% vs 15.9, p = 0.02), higher frequency of positive ACPA antibody (96.3% vs 79.4%, p = 0.04). Likewise, they mostly presented altered HbA1C (60.7% vs 32.3%, p = 0.01), and elevated triglycerides (39.3% vs 15.4%, p = 0.01). Less frequently, they were being treated with leflunomide (33% vs 57.1%, p = 0.0290). No significant differences were found in relation to CV risk biomarkers.

Conclusion: A high percentage of RA patients are obese. Obese patients more frequently had metabolic syndrome, heart failure, altered levels of triglycerides and HbA1C. Education should be reinforced and weight reduction programs established in order to improve overall control of the disease.

PANLAR2021-ABS-1183

THE BEST CARDIOVASCULAR RISK ALGORITHM TO PREDICT ABNORMALITIES IN LEFT VENTRICULAR GEOMETRY IN RHEUMATOID ARTHRITIS PATIENTS

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Objectives: A relationship between rheumatoid arthritis (RA) and the presence of abnormalities in left ventricular (LV) geometry such as eccentric remodeling has recently been determined, even in the absence of cardiovascular risk factors and before clinical manifestations[1]. The 2016 European League Against Rheumatism (EULAR) recommendations that cardiovascular (CV) risk prediction models should be adapted by a 1.5 multiplication factor in RA patients. Risk prediction algorithms based on the CV risk factors (CVRF) have been an important tool for adopting preventive measures and intensifying therapies based on the estimated risk but their application in predicting cardiac structural abnormalities has never been studied. The aim of the study is to determine the CV risk calculator that best predicts alterations in LV geometry in RA.

Methods: A cross-sectional, observational study of 108 RA patients between 40-75 years, who fulfilled ACR/EULAR 2010 classification criteria. The QRISK3, OMNIBUS, Framingham Risk Score Lipids (FRSL), Framingham Risk Score BMI (FRS-BMI) and Reynolds Risk Score (RRS) calculators were compared. The diagnostic performance was determined by ROC curves, and the discriminative capacity by the Area Under the Curve (AUC) 95% CI. The echocardiogram was the diagnostic gold standard.

Results: The prevalence of abnormalities in ventricular geometry was 38.9%. QRISK3 reported AUC of 0.656, 95% CI

(0.550-0.762, p = 0.006), cut-off point ≥4.6, sensitivity of 73.8% and specificity of 54.5%, and likelihood ratio of +1.62.

FRS-BMI showed AUC of 0.653, 95% CI (0.543-0.762, p = 0.008), cut-off point ≥11.02, sensitivity and specificity of

61.9% and 57.6% respectively, and likelihood ratio of +1.46. OMNIBUS showed AUC of 0.635, CI 95% (0.525-0.746, p =

0.018), cut-off point ≥3.8, sensitivity and specificity of 57.1% and 68.2%. While RRS had AUC 0.644, 95% CI (0.5340.755, p = 0.012), cut-off point of 2.25, sensitivity of 47.6% and specificity 78.8%, and likelihood ratio of +2.24 (Figure 1 and Table 1).

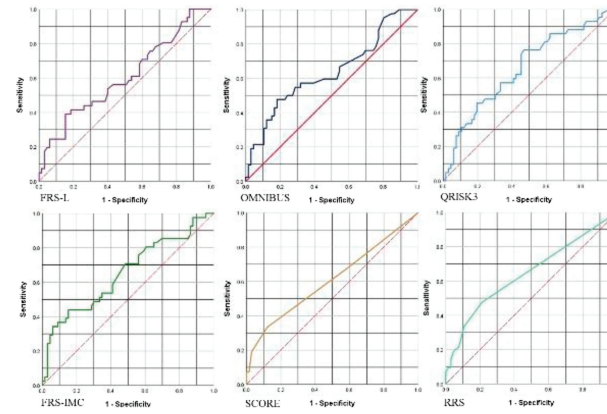
Conclusion: The QRISK3 calculator showed the highest discriminative ability and sensitivity to predict abnormalities in LV geometry. However, all calculators demonstrated the need for a lower cut-off point to predict abnormalities in ventricular geometry. Our findings require adequate reproducibility in other population groups to determine the applicability of CV risk algorithms as predictors of structural alteration of LV.

Table 1. Discriminatory capacity of the different cardiovascular risk calculators.

Calculators (cut-off point).	AUC	IC 95%		p	Sensitivity	Specificity
		Inferior	Superior			
QRISK (≥4.60)	0.646	0.537	0.754	**0.012**	73.8%	54.5%
SCORE	0.591	0.475	0.706	NS	-	-
OMNIBUS (≥3.80)	0.621	0.509	0.734	**0.038**	57.1%	68.2%
FRSL	0.594	0.480	0.707	NS	-	-
FRS-BMI (≥11.02)	0.642	0.530	0.754	**0.015**	61.9%	57.6%
RRS (≥2.25)	0.627	0.514	0.741	**0.029**	47.6%	78.8%

Framingham Risk Score Lipids (FRSL), Framingham Risk Score BMI (FRS-BMI), Reynolds Risk Score (RRS).

Figure 1. ROC curves of the different cardiovascular risk calculators.



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PANLAR2021-ABS-1184

HIGHER PREVALENCE OF SUBCLINICAL ATHEROSCLEROSIS IN THE FIRST FIVE YEARS OF RHEUMATOID ARTHRITIS DIAGNOSIS

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Objectives: Patients with rheumatoid arthritis (RA) have a higher risk of developing a cardiovascular (CV) event than the general population, due to an accelerated process of atherosclerosis [1], which has been documented to start in the early stages of the disease and it is directly associated with systemic inflammation [2].

The aim of this study was to compare the prevalence of subclinical atherosclerosis detected by carotid ultrasound (US) in patients with RA in the first five years of diagnosis and healthy controls.

Methods: This was a cross-sectional, observational, and comparative study. A total of 53 patients aged 40-75 years of age, with RA diagnosis, in the previous five years, according to the 2010 ACR/EULAR classification criteria, and 53 controls matched by age (±5 years), gender and comorbidities were included in this study. Subjects with a previous CV event were excluded from this study. A carotid US was performed in all study subjects. Subclinical atherosclerosis

was evaluated as the presence of carotid plaque (CP) or an increased carotid intima media thickness (cIMT). CP was defined as a cIMT ≥1.2 mm or a focal narrowing ≥0.5 mm of the surrounding lumen, and an increased cIMT was defined as a value ≥0.8 mm. Distribution was evaluated with the Kolmogorov-Smirnov test. Comparisons were done with the χ^2 and the Fisher's exact tests for qualitative variables, and Students' T and Mann-Whitney's U tests for quantitative variables. A p value <0.05 was considered statistically significant.

Results: Comparisons of demographic characteristics showed no difference between the RA group and the control group (Table 1). When comparing carotid US findings there was a difference in the presence of CP, being more prevalent in RA patients (26.4% vs 11.3%, p = 0.047), in the presence of an increased cIMT, being more prevalent in RA patients (32.1% vs 3.8%, p = <0.001), in the cIMT as a quantitative variable, being higher in RA patients (0.75 mm vs 0.60 mm, p = 0.001), and in the presence of subclinical atherosclerosis overall, being more prevalent in RA patients (52.8% vs 15.1%, p = <0.001) (Table 2).

Table 1. Demographic and clinical characteristics.

	RA patients (n=53)	Controls (n=53)	*p*
Age years, mean ± SD	54.48 ± 9.09	54.86 ± 6.83	NS
Women, n (%)	49 (92.5)	49 (92.5)	NS
T2DM, n (%)	8 (15.1)	7 (13.2)	NS
HTN, n (%)	17 (32.1)	17 (32.1)	NS
Dyslipidemia, n (%)	19 (35.8)	19 (35.8)	NS
Obesity, n (%)	21 (39.6)	20 (37.7)	NS
Active smoking, n (%)	3 (5.7)	4 (7.5)	NS
BMI kg/m^2, median (IQR)	28.78 (25.92-33.21)	27.59 (24.55-33.34)	NS
Disease duration, mean ± SD	2.48 ± 1.31	-	-
DAS28-CRP, median (IQR)	3.21 (1.89-4.12)	-	-
MTX, n (%)	39 (73.6)	-	-
Glucocorticoids, n (%)	29 (54.7)	-	-

NS, not significant; T2DM, type 2 diabetes mellitus; HTN, hypertension; BMI, body mass index; DAS28, disease activity score using 28 joints; CPR, C-reactive protein; MTX, methotrexate.

Table 2. Carotid ultrasound findings.

	RA patients (n=53)	Controls (n=53)	*p*
Carotid plaque, n (%)	14 (26.4)	6 (11.3)	**0.047**
Unilateral carotid plaque, n (%)	6 (11.3)	4 (7.5)	NS
Bilateral carotid plaque, n (%)	8 (15.1)	2 (3.8)	**0.046**
cIMT ≥0.8mm, n (%)	17 (32.1)	2 (3.8)	**<0.001**
Unilateral cIMT ≥0.8mm, n (%)	10 (18.9)	2 (3.8)	**0.014**
Bilateral cIMT ≥0.8mm, n (%)	7 (13.2)	0 (0.0)	**0.013**
cIMT mm, median (IQR)	0.75 (0.61-0.97)	0.60 (0.50-0.66)	**0.001**
Subclinical atherosclerosis, n (%)	28 (52.8)	8 (15.1)	**<0.001**

NS, not significant; RA, rheumatoid arthritis; cIMT, carotid intima media thickness.

Conclusion: Patients with RA in the first five years of diagnosis have a higher prevalence of subclinical atherosclerosis than the general population. CV evaluation including a carotid US should be done at the time of diagnosis of RA patients, and subsequently it must be individualized according to the CV risk of each patient, with a maximum of five years to identify those patients who would benefit from an opportune treatment.

References:

1. Geraldino-Pardilla L, Russo C, Sokolove J, Robinson WH, Zartoshti A, Van Eyk J, et al. Association of anticitrullinated protein or peptide antibodies with left ventricular structure and function in rheumatoid arthritis. Rheumatology (Oxford). 2017;56(4):534-40.

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PANLAR2021-ABS-1308

OPTIMIZATION OF BIOLOGICAL THERAPIES IN A RHEUMATOID ARTHRITIS PROGRAM IN BOGOTá-COLOMBIA

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Objectives: To describe the characteristics of patients with rheumatoid arthritis in optimization of the EPS Sanitas-Keralty Group program, between June 2019 and March 2021, in addition to evaluating the economic impact of the disease.

Methods: Descriptive cross-sectional study of patients with established rheumatoid arthritis in remission (DAS28PCR <2.6) or low activity (DAS28PCR 2.6 < 3.2), on stable doses ≥1 year of: biological therapy, modifying drugs of the conventional disease (DMARDcs), without corticosteroids or prednisolone.

Results: 230 patients were included, mean age: 59.6 years (Standard deviation (SD): 12.6), 199 women (86.5%), the mean duration of the disease was 18.6 years (SD: 10.6), high-titer seropositivity was 62.6% for rheumatoid factor (RF) and 70.4% for anti-citrulline antibodies (anti CCP), erosive disease in 29.1%. Regarding the therapies, the optimization in the first line was 78.3% and the second: 13.5%, with a mean time of use at full doses 5.58 years (SD: 3.53). Within the strategies used for optimization, the extension of the dose interval was 64.8%, dose reduction in 20.9% and discontinuation in 14.3%. There was a 17.8% failure: Etanercept 41.5% and tocilizumab 19.5%; during the period of follow up there were no failures to rituximab and infliximab. Of all the failures, 24.2% were presented in the discontinuation strategy, followed by 18.1% in the interval extension and 12.5% in the dose reduction. With rituximab, two strategies were used: interval extension (63%) and dose reduction (29%); with similar results in terms of cost: 4,286 USD annually

Table 1. Impact on annual cost in dollars by type of optimization strategy and biological.

Biological therapy	Expansion interval		Dose reduction		Suspension		Total		
	# Patients	Annual cost	# Patients	Annual cost	# Patients	Annual cost	# Patients	%	Annual cost
Rituximab	63	$ 212.878,9	29	$ 64.292	3	$ 12.858	95	41,3%	$ 290.030
Etanercept	22	$ 78.868,4	3	$ 12.358	3	$ 20.025	28	12,2%	$ 111.252
Certolizumab	6	$ 14.480,0	2	$ 30.028	5	$ 40.037	18	7,8%	$ 84.545
Tocilizumab	10	$ 27.221,8	2	$ 4.680	6	$ 38.167	18	7,8%	$ 70.069
Adalimumab	7	$ 36.940,7		$ -	3	$ 27.140	10	4,3%	$ 64.081
Abatacept	10	$ 40.769,9		$ -	2	$ 17.468	12	5,2%	$ 58.238
Golimumab	4	$ 11.052,2		$ -	2	$ 18.947	6	2,6%	$ 29.999
Infliximab		$ -	1	$ 1.007	1	$ 3.020	2	0,9%	$ 4.027
Patients	122	$ 422.212,0	42	$ 112.365	25	$ 177.663	189	82,2%	$ 712.240

(357 USD monthly). Globally, an impact on annual cost of 712,240 USD (59,353 USD month) was obtained (See table 1)

Conclusion: Our study confirms the importance of the implementation of optimization strategies, achieving to maintain 82.2% during the analysis period in therapeutic goals with cost-month impacts of 59,353 USD.

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PANLAR2021-ABS-1326

DEPRESSION AND ANXIETY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To determine the frequency of depression and anxiety in patients with RA and its relationship with the clinical, epidemiological and serological characteristics of the disease.

Methods: Descriptive, analytical, cross-sectional study in a cohort of patients with RA, from two tertiary hospitals. A questionnaire was completed with epidemiological, clinical, laboratory and radiographic variables, as well as a thorough physical examination. The Hospital Anxiety and Depression Scale was used, which includes two subscales (HADA: anxiety and HADD: depression) with a score from 8 to 10 that represents a case and > 10 a probable case for

both. Qualitative variables were expressed as frequencies and percentages, and the quantitative variables as medians. Chi square was used for qualitative variables and Student's t-test for quantitative ones. Statistical analysis was performed with the SPSS V.23.0 statistical program.

Results: 330 patients with a diagnosis of established RA were included, most of them were female 82.4%, with an average age of 51.23 ± 13.12 years, median disease duration of 108.19 ± 91.17 months; the median disease activity on DAS 28 scale was 3.04 ± 1.18 and the HAQ score was 0.07 ± 0.29. The median HADA score was 5.8 ± 3.7 points and for HADD was 4.6 ± 3.27. 10% of the patients had anxiety (HADA case), 18.2% probable, while only 3.5% had depression (HADD case), and 13.5% probable HADD. Patients with anxiety were mostly women (100% vs 79%, p 0.036). Patients with probable anxiety mostly had an oligoarticular onset (29.6% vs 12.7%, p 0.027), and with greater frequency of dyslipidemia (53.3% vs 27.3%, p = 0.006). Patients with depression had more frequently a duration of disease of less than 1 year (16% vs 2.5%, p = 0.046), with less frequency they had positive anti-CCP (50% vs 84%, p = 0.026). Likewise, they had a higher average of number of painful joints (3.9 ± 1.6 VS 2.5 ± 0.19, p = 0.012), and VAS scale of pain (30.5 ± 12.4 vs 11.8 ± 0.93, p = 0.006). The patients with probable HADD had a higher frequency of positive RF (95% vs 75.7%, p = 0.043) and obesity (52.3% vs 25.9%, p = 0.013).

Conclusion: In this cohort of patients with RA there was a low frequency of anxiety and depression. Patients with anxiety were mostly women. Patients with depression more frequently had a shorter duration of illness, a higher average of painful joints, and pain VAS scale.

PANLAR2021-ABS-1365

RELATIONSHIP BETWEEN DISEASE ACTIVITY AND CARDIOVASCULAR RISK BIOMARKERS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To describe disease activity in patients diagnosed with rheumatoid arthritis (RA) and its relationship with the clinical and serological features, and cardiovascular risk biomarkers.

Methods: Descriptive, cross-sectional study in patients diagnosed with RA. This study had 2 stages: a standardized questionnaire carried out with the variables included in the IMID Cardiovascular Risk project (PINV150346), of the National Council of Sciences and Technologies (CONACYT); for the second part, a serum sample was taken for the determination of cardiovascular risk biomarkers (e.g. endothelin, TNF alpha, E-selectin, homocysteine, apolipoprotein, fibrinogen and ultrasensitive CRP). The SPSS version 23 statistical program was used. The quantitative variables were expressed as means and the qualitative variables as frequencies. A $p < 0.05$ was considered significant.

Results: 100 patients were included: 87% were female, with a mean age of 51.36 ± 11 years, and mean disease duration of 130.9 ± 102.64 months. 84.4% were ACPA positive. 13% were smokers, and 54% sedentary. 80% were on methotrexate treatment. Mean DAS 28 score was 2.99 ± 1.1. 28.6% of the patients met DAS28 remission criteria, 10.2% had high, 36.7% moderate and 24.5% low activity. The mean number of painful joints was 1.72 ± 2.3, number of swollen joints was 1.8 ± 2.1, patient's global assessment was 25.02 ± 17.7 and the VAS scale for pain 23.33 ± 19.7. Most patients on remission were male (28.6% vs. 7.1%, p = 0.005), they less frequently had altered total cholesterol (7% vs 27.8%, p = 0.004), and had a lower average in the HAQ score (p = 0.007). Those with high activity were more frequently on glucocorticoid treatment (80% vs 36.4%, p = 0.008), were taken a higher dose of methotrexate (6.8 ± 4.73 vs 2.4 ± 2.3, p = 0.006), and had greater hip circumference (p = 0.004). They more frequently presented altered LDL (70% vs 37.4%, p = 0.047), altered IL-6 (70% vs 34.1%, p = 0.027), and had hypothyroidism 30% vs 2.4%, p = 0.000.

Conclusion: A significant percentage of patients were in remission and low activity. Most of the patients in remission were male. High activity was related to greater use of glucocorticoids, larger hip circumference, higher levels of LDL and IL-6, and a higher frequency of hypothyroidism.

PANLAR2021-ABS-1371

THE IMPACT OF THE COVID-19 PANDEMIC IN THE PRACTICES AND BEHAVIORS OF PATIENTS WITH RHEUMATOID ARTHRITIS. A DESCRIPTIVE STUDY

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Objectives: The new coronavirus disease became a public health emergency that has not been seen for generations. The COVID-19 disease leads to an excessive immune activation and cytokine response and constitutes a considerable risk and a challenge for patients with inflammatory conditions such as rheumatic diseases. Patients with rheumatoid arthritis (RA) due to their age and comorbidities were the first to be in continuous lockdown due to their risk and current circumstances. This new "normality" has caused barriers to access medical care and a radical change in their daily life, especially during the beginning of the pandemic. The aim of this study is to describe the practices and behaviors of patients with rheumatoid arthritis during the first lockdown due to the COVID-19 pandemic in Bogotá, Colombia.

Methods: In this study, we conducted a telephone survey. We included respondents who participated in an educational program for patients with rheumatoid arthritis. We asked about their behaviors around COVID-19 during the first lockdown established in Colombia, adherence to pharmacological treatment and compliance to a newly implemented telemedicine model. We also asked about COVID-19 related symptoms two weeks before the survey.

Results: We included 296 participants. The mean age of the respondents was 60 years IQR (54-66), 95% were female. 86% of patients were receiving more than one conventional DMARD. See Table 1. Although the telemedicine model was entirely new to them, 75% participated in a tele rheumatology consultation. In general, at the beginning of the pandemic, patients were compliant with the COVID-19 prevention measurements. However, we found that 3.5% of patients reported having been less adherent to pharmacological therapy due to information received through media or social networks. Only one patient tested positive for having SARS-COV-2 and reported only flu symptoms without any complications. Patients reported the need to have information and education about the relationship between rheumatoid arthritis and COVID-19.

BASELINE

N	260
Demographics	
Age, years (median IQR)	60 (54-66)
Female (%)	95
Male (%)	5
Civil Status	
Single (%)	26
Married (%)	45
Divorced (%)	20
Widowed (%)	10
Education	
Elementary School (%)	24
High School (%)	40
College education (%)	36
Therapy	
Conventional DMARDs (%)	86
Biologic DMARDs (%)	14

Conclusion: Patients with rheumatoid arthritis have experienced drastic changes in their lives and adapted to new ways to receive medical care. Patients with RA need support and education. As other forms of education, for example, for college students new teaching methods have been implemented, programs for patients should follow the same model.

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PANLAR2021-ABS-1377

ACTIVATION IN PATIENTS WHO ATTEND AN EDUCATIONAL PROGRAM IN RHEUMATOID ARTHRITIS

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Objectives: One of the components that might positively interact with comorbidities among ageing populations is to involve patients in their self-care. A new key concept has appeared, "activation", which refers to people's knowledge, self - confidence and skills to manage their health. Based on this concept, Hibbard et al. developed the Patient Activation Measure in the United States (1). This score has been adapted to many languages, one of these Spanish, showing reliable and valid results for assessing activation in patients with chronic conditions (2). We aim to describe the level of activation of patients with Rheumatoid Arthritis who start participating in an educational program at a RA primary center.

Methods: We applied the PAM-13 scale validated in Spanish. The instrument has a score from 1 to 4 divided into four levels. Level 1 represents a disengaged patient; level 2: the patient becomes aware but struggling; level 3: The patient is taking action and considers himself as part of the healthcare team, and level 4 represents a patient that maintains behaviors and pushes forward. The maximum score is 52 points. These scores are converted into an activation score ranging from 0 to 100, with higher scores reflecting higher activation. We conducted a descriptive analysis of patient characteristics are presented as medians and interquartile ranges for continuous variables and number and percentages for categorical variables.

Results: We invited 100 eligible patients, and 92 answered our survey. The median age was 61 IQR (55-66), 93% of participants were female, and 40% of our participants had finished high school Table 1. The median score for the PAM13 instrument was 47.5 IQR (42.5-51). In our study, 55% of participants were in level three, beginning to take action, and 35% of our participants were in high activation level four. Only 10% were in level two, becoming aware but still struggling. See Figure 1. Patients who had post-graduate education had higher scores than those who were illiterate and had finished elementary school or secondary.

Age	
Median	61
RIQ	55-65.5
Sex n(%)	
Male	6 (7)
Female	86 (93)
Marital Status n(%)	
Single	31 (38)
Civil Union	8 (9)
Married	35 (38)
Divorced	11 (12)
Widowed	5 (8)
Educational Level n(%)	
Illiterate	1 (1)
Elementary School	8 (9)
High School	36 (39)
Technical degree	13 (14)
College	27 (29)
Post-Graduate	7 (8)

Table 1. Sociodemographic characteristics of participants

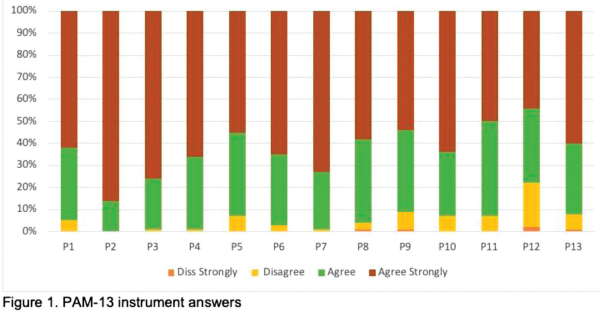

Figure 1. PAM-13 instrument answers

Conclusion: Educational activities might directly affect the level of activation in patients with rheumatoid arthritis; however, further research is needed. PAM-13 score is a helpful tool to assess the level of empowerment in patients with RA. Other variables such as adherence need to be considered in further analysis.

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PANLAR2021-ABS-1382

FACTORS ASSOCIATED WITH THERAPEUTIC FAILURE TO BIOLOGICAL ANTI-TNF DRUGS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: Rheumatoid arthritis (RA) is a chronic inflammatory disease where its most effective therapeutic intervention is based on combined pharmacological therapies and different clinical specialties; RA treatment includes disease modifying anti-rheumatic drugs (DMARDs) of the conventional or biological type; within the latter the first to be developed were the so-called anti-TNF drugs; as studies indicate, there are different sociodemographic, clinical and pharmacological reasons that could influence the results of the therapy. The objective of this study was to evaluate the factors associated with presenting therapeutic failure with anti-TNF biological drugs in patients with RA in a specialized center in Colombia.

Methods: The study was observational, analytical of cases and controls. We worked with 139 cases and 139 controls that met the inclusion criteria for the study period from January 2017 to December 2019 at the Biomab IPS rheumatology center in Colombia.

Results: From the total sample, 83.3% corresponded to the female gender, the average age was 58 years; the probability of therapeutic failure was 30% during 3 years of treatment, and between the anti-TNF drugs, Certolizumab has a higher probability of failure (p = 0.047); among other factors for therapeutic failure to anti-TNFs being a young adult (OR 1.650), having comorbidities such as diabetes (OR 4.769), cardiovascular disease (OR 2.069) and having a poor adherence to pharmacological treatment (OR 0.193) were identified; there was no difference regarding gender, comorbidities not mentioned and being adherent to the care model and treatment. These data are shown on Table 1. On the other hand, it was concluded that the occupation: active subcategory, twice

Table 1. Comparison of the case and control characterization of dichotomous variables during analyzed three-year period.

Variable	Categoría	Casos		Controles		Valor p	OR	IC 95%
		No.	%	No.	%			
Género	Femenino	117	42,1	116	41,7	0,871	1,054	[0,557 – 1,997]
	Masculino	22	7,9	23	8,3			
Grupos Etario en el periodo	Adulto Joven	100	36	52	18,7	**0,000**	4,290	[2,589 – 7,108]
	Adulto Mayor	39	14	87	31,3			
B, Grupo Etario Diagnostico	Adulto Joven	62	23	49	18,1	**0,044**	1,650	[1,013 – 2,690]
	Adulto Mayor	69	25,6	90	33,3			
Comorbilidades	Si	75	27	45	16,2	**0,000**	2,448	[1,504 – 3,985]
	No	64	23	94	33,8			
HTA	Si	40	14,4	28	10,1	0,094	1,602	[0,921 – 2,787]
	No	99	35,6	111	39,9			
DM	Si	21	7,6	5	1,8	**0,001**	4,769	[1,744 – 13,045]
	No	118	42,4	134	48,2			
ECV	Si	9	3,2	0	0	**0,003**	2,069	[1,829 – 2,341]
	No	130	46,8	139	50			
ERC	Si	2	0,7	0	0	0,498	2,015	[1,789 – 2,269]
	No	137	49,3	139	50			
Osteoporosis	Si	31	11,2	20	7,2	0,088	1,708	[0,919 – 3,173]
	No	108	38,8	119	42,8			
Síndrome de Sjögren	Si	12	4,3	6	2,2	0,144	2,094	[0,763 – 5,749]
	No	127	45,7	133	47,8			
Número de DMARDs antes de la falla	0 a 2	49	17,6	108	38,8	**0,000**	0,156	[0,092 – 0,265]
	3 o más	90	32,4	31	11,2			
Número de biológicos antes de la falla	0 a 2	119	42,8	138	49,6	**0,000**	0,043	[0,006 – 0,326]
	3 o más	20	7,2	1	0,4			
Medicamentos Concomitantes Patologías	0 a 3 medicamentos	132	47,5	137	49,3	0,173	0,275	[0,056 – 1,349]
	4 o más medicamentos	7	2,5	2	0,7			
Medicamentos Concomitantes Indirectos	0 a 3 medicamentos	66	23,7	56	20,1	0,227	1,340	[0,833 – 2,155]
	4 o más medicamentos	73	26,3	83	29,9			
Adherencia al tratamiento Farmacológico	Adherente al tratamiento farmacológico	109	42,7	130	51	**0,006**	0,193	[0,054 – 0,697]
	No adherente al tratamiento farmacológico	13	5,1	3	1,2			
Adherencia al modelo de la IPS	Adherente al modelo de la IPS	65	28,9	93	41,3	0,184	0,678	[0,382 – 1,205]
	No adherente al modelo de la IPS	34	15,1	33	14,7			

Table 2. Multivariate analysis. Factors associated with therapeutic failure with Anti-TNF biological treatment in patients with rheumatoid arthritis.

Variable	B	Wald	Sig	Exp(B)	IC 95%
Ocupación: Desempleado		11,589	1		
Ocupación: Pensionado	-0,709	1,923	1,66	0,492	[0,180 – 1,341]
Ocupación: Activo	-1,795	11,218	**0,001**	0,166	[0,058 – 0,475]
Comorbilidad	1,427	9,769	**0,002**	4,165	[1,702 – 10,188]
Diabetes Mellitus	0,946	1,257	0,262	2,575	[0,493– 13,453]
ECV	20,617	0,000	0,999	898891696,200	
Número de DMARS antes de la falla	1,933	21,981	**0,000**	6,909	[3,080 – 15,499]
Número de biológicos antes de la falla	20,977	0,000	0,998	1288433245,000	
Medicamento: Infliximab		21,340	1		
Medicamento: Adalimumab	1,911	6,339	**0,012**	6,758	[1,527 – 29,908]
Medicamento: Certolizumab	1,128	3,939	**0,047**	3,090	[1,014 – 9,414]
Medicamento: Etanercept	2,022	9,669	**0,002**	7,551	[2,111 – 27,006]
Medicamento: Golimumab	-2,219	3,761	0,052	0,109	[0,012 – 1,024]
Adherencia al tratamiento farmacológico	-1,163	7,754	**0,005**	0,312	[0,138 – 0,709]

*Categorías de referencia, B: Coeficiente Beta, Exp(B):Odds Ratio; IC 95%: Intervalo de confianza al 95%. Wald: estadístico de prueba

decreases the probability of therapeutic failure to anti-TNF biologics compared to the group of those who are unemployed, with a statistically significant difference between groups (p = 0.001) (Table 2)

Conclusion: These results show that up to a third of patients will have therapeutic failure to anti-TNFs drugs in patients with RA in a 3-year period; likewise, factors such as age, the presence of some comorbidities, the degree of adherence to pharmacological treatment and even whether they are unemployed, can influence the success of the treatment.

PANLAR2021-ABS-1087

GUSELKUMAB PROVIDES SUSTAINED DOMAIN-SPECIFIC AND COMPREHENSIVE EFFICACY AS ASSESSED USING COMPOSITE ENDPOINTS IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS

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Objectives: Guselkumab (GUS), an interleukin-23p19 subunit monoclonal antibody, significantly improved signs and symptoms of psoriatic arthritis (PsA) through Week (W)24, and improvements were maintained through W52 in the phase 3 studies DISCOVER (D) 1[1] and 2[2]. This study assessed GUS efficacy through W52 in D1 and 2 using composite indices.

Methods: Adult patients (pts) with active PsA had ≥3 swollen and ≥ 3 tender joints and C-reactive protein (CRP) ≥0.3 mg/dL in D1; and ≥ 5 swollen and ≥ 5 tender joints and CRP ≥0.6 mg/dL in D2. 31% of D1 pts received 1-2 prior tumor necrosis factor inhibitors; D2 pts were biologically-naïve. Pts were randomized 1:1:1 to GUS 100 mg every 4 weeks (Q4W); GUS 100 mg at W0, W4, then Q8W; or placebo (PBO) with crossover to GUS 100 mg Q4W at W24. Composite endpoints pooled across D1 and 2 were: Disease Activity Index for Psoriatic Arthritis (DAPSA), Psoriatic Arthritis Disease Activity Score (PASDAS), Minimal Disease Activity (MDA), and Very Low Disease Activity (VLDA). GUS vs PBO comparisons through W24 employed a Cochran-Mantel-Haenszel test with baseline stratification factors or Fisher's exact test; no treatment group comparisons were performed beyond W24. P-values were not adjusted for multiplicity. From W24-W52, pts with missing data were considered nonresponders (>90% of pts completed treatment through W52).

Results: In randomized and treated pts from D1 (N = 381) and D2 (N = 739), pooled baseline characteristics were generally well-balanced across treatment groups and reflected active disease. Differences in response rates between GUS Q4W/Q8W and PBO were seen as early as W8 and increased over time through W24. In pts continuing GUS Q4W/Q8W, respectively, post-W24 response rates associated with these composite indices continued to increase through W52, at which time they were: 54.2% and 52.5%, DAPSA LDA; 45.3% and 41.9%, PASDAS LDA; 35.9% and 30.7%, MDA; 18.2% and 17.6%, DAPSA remission; and 13.1% and 14.4%, VLDA, with no discernable difference between GUS Q4W and Q8W dosing regimens (Table and Fig). After PBO crossover to GUS Q4W at W24, response rates increased through W52.

Table. Pooled response rates for DISCOVER-1 and DISCOVER-2 randomized and treated patients.

	DISCOVER-1&2		
	GUS Q4W	GUS Q8W	PBO --> GUS Q4W[1]
Randomized and treated patients, n	373	375	372
PASDAS[2] LDA			
Wk 24	27.9%**	30.1%**	8.9%
Wk 52	45.3%	41.9%	36.8%
MDA[3]			
Wk 24	22.8%**	24.3%**	7.8%
Wk 52	35.9%	30.7%	28.2%
DAPSA[4] Remission			
Wk 24	10.2%**	8.3%**	2.2%
Wk 52	18.2%	17.6%	11.0%
VLDA[3]			
Wk 24	6.4%**	4.3%*	1.3%
Wk 52	13.1%	14.4%	8.3%

Data reported as proportions of patients, %. Unadjusted p values at Wk24 vs PBO: *p<0.05; **p<0.001.

[1]Pts randomized to PBO crossed over to GUS Q4W at Wk24.

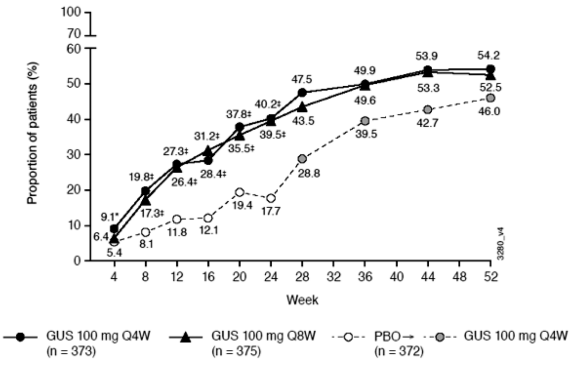
[2]PASDAS is derived from Pt global assessment of arthritis and psoriasis (0-100), Physician global assessment (0-100), swollen joint count (0-66), tender joint count (0-68), CRP (mg/L), Leeds enthesitis index score, tender dactylitis count, and the 36-item Short-Form Health Survey Physical Component Summary score. PASDAS LDA ≤3.2.

[3]MDA is 5/7 criteria met; VLDA is 7/7 criteria met: tender joint count ≤1, swollen joint count ≤1, Psoriasis Activity and Severity Index ≤1, Pt assessment of pain ≤15 (0-100), Pt global assessment of disease activity ≤20 (0-100), Health Assessment Questionnaire-Disability Index score ≤0.5, Tender entheseal points ≤1.

[4]DAPSA Remission: score ≤4 (definition in figure legend).

CRP, C-reactive protein; DAPSA, Disease Activity Index for Psoriatic Arthritis; GUS, guselkumab; MDA, Minimal Disease Activity; PASDAS, Psoriatic Arthritis Disease Activity Score; PBO, placebo; Pt, patient; Q4W, every 4 weeks; Q8W, every 8 weeks; VLDA, Very Low Disease Activity; Wk, week.

Figure. Proportions of Pooled DISCOVER-1 and DISCOVER-2 Patients Achieving DAPSA LDA[a] Through Week 52.



Missing data imputed as nonresponse.

*, +, ‡ p < 0.05, 0.01, 0.001, respectively, vs placebo. Unadjusted (nominal) p values are not controlled for multiplicity and are descriptive/supportive only; no statistical significance should be implied.

a The DAPSA score is derived from tender joint count (0–68), swollen joint count (0–66), CRP (mg/dL), patient assessment of pain (0–10 cm VAS), and patient global assessment of disease activity (arthritis, 0–10 cm VAS). DAPSA LDA: ≤14. DAPSA Remission: ≤4.

Conclusion: GUS 100 mg Q4W and Q8W provided robust and sustained benefits to pts with active PsA across multiple domains, indicating that GUS may provide an alternative treatment option for the diverse manifestations of PsA.

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PANLAR2021-ABS-1162

ASSOCIATION BETWEEN ATMOSPHERIC CHANGES AND HAND ARTHRALGIA

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Objectives: To evaluate the association between atmospheric variables and the exacerbation of hand arthralgia.

Methods: A total of 129 patients with hand arthralgia were recruited at two tertiary care centers in Monterrey, Mexico. Informed consent was obtained. We

used an automated compressor to perform the Squeeze Test (ST) maneuver, which registers the necessary force to evoke pain (positive ST). A Spearman's rho was performed to assess the correlation between atmospheric variables and force of the positive ST, during the day of the appointment and the day of the onset of symptoms (Table 1).

Results: Of all patients, 108 (83.7%) were women, with a mean age of 49.42 (SD ± 14.77) years. Mean force of the squeeze test compressor was 4.19 kg (SD ± 3.09) on the right hand and 4.06 kg (SD ± 2.94) on the left hand. There was no significant correlation between the positive ST force and the atmospheric changes the day of the appointment and the day of the onset of hand arthralgia.

Parameter	Right hand's positive ST force	Left hand's positive ST test
Appointment day		
Mean temperature	-.115	-.132
Maximum atmospheric pressure	-.017	0.009
Minimum atmospheric pressure	-0.11	0.015
Mean atmospheric pressure	-0.36	-0.006
Day of symptom onset		
Mean temperature	-.178	-0.207
Maximum atmospheric pressure	.244	0.279
Minimum atmospheric pressure	.268	0.299
Mean atmospheric pressure	.222	0.262

Table 1. Spearman's rho correlation between atmospheric changes on the day of the appointment and the day of symptoms onset with the positive Squeeze Test (ST) necessary force.

Conclusion: There is no significant association between atmospheric changes and the presence of hand arthralgia.

References:

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PANLAR2021-ABS-1222

FREQUENCY OF ANERGY IN A GROUP OF PATIENTS WITH RHEUMATOID ARTHRITIS AND IMMUNOSUPPRESSIVE THERAPY

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Objectives: To determine the frequency and possible factors associated with cutaneous anergy in a group of patients with rheumatoid arthritis and immunosuppressive therapy.

Methods: Cross-sectional analytical observational study in which 100 patients with rheumatoid arthritis with immunosuppressive therapy were included (Figure 1). They were tested for delayed cutaneous hypersensitivity with tuberculin and a control test with tetanus toxoid. The non-reactivity of both tests was defined as anergy

Results: The overall frequency of cutaneous anergy was 9% (n = 11). It occurred in 33% of men versus 6% of women, average age was 57 and 89% were over 50 years of age. The female sex behaved as a protective variable for the generation of anergy OR 0.795 [95% CI, 0.658 - 0.959, p < 0.05]. All patients with anergy used corticosteroids, 44% were treated with methotrexate and 33% with biological therapy. Treatment with moderate to high dose prednisone and biological therapy were independently associated with the presentation of anergy: OR 1,044 [95% CI, 1,0081080 p < 0.05] and OR 1,096 [95% CI, 1,016-1,182, p < 0.05], respectively (Table 1). The overall positivity for tuberculin was 13%. Symptoms associated with disease activation were present in 38% of these; cases of confirmed active tuberculosis were excluded (n = 1)

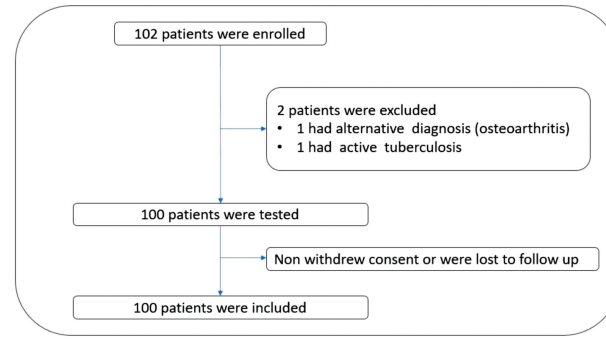

Figure 1. Enrollment and Follow-up

Table 1. Logistic regression combined variables

CATEGORY	REGRESSION COEFFICIENTS	P VALUE	ODDS RATIO (OR)	LL (OR)	UL(OR)
Gender	-0,2111	0,021528	0,810	0,679	0,966
Prednisone dosis	0,0427	0,017546	1,044	1,008	1,080
Methotrexate + prednisone dosis	-0,0031	0,019224	0,997	0,994	0,999
Biological therapy	0,0757	0,061693	1,079	0,998	1,166

Conclusion: The high prevalence of cutaneous anergy in patients with RA in the present study and the evidence presented here supports the recommendation of a second diagnostic test (tuberculin booster or IGRAs) for the diagnosis of latent TB in patients with RA and immunosuppressive therapy

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PANLAR2021-ABS-1082

PROMIS ASSESSMENT OF RESPONSE TO TREATMENT WITH GOLIMUMAB IV OR INFLIXIMAB IN RHEUMATOID ARTHRITIS PATIENTS: RESULTS FROM THE PHASE 4 AWARE STUDY

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Objectives: AWARE (Comparative & Pragmatic Study of Golimumab [GLM] Intravenous [IV] vs Infliximab [IFX] in Rheumatoid Arthritis [RA]) is a phase 4, prospective, noninterventional, multicenter (88 sites), observational study in the US for real-world assessment of GLM IV & IFX in RA patients (pts) who

experience significant pain, fatigue, & impaired physical function. Using the Patient Reported Outcomes Measurement Information System (PROMIS), we assessed outcomes of social, mental, & physical well-being through the 8th infusion (≈1 yr treatment).

Methods: AWARE enrolled 1270 RA pts initiating GLM or IFX. The 52 Week Analysis Set included pts with ≥1-yr treatment or those discontinued & completed PROMIS-29/short form (SF) questionnaires. The PROMIS instruments were administered at baseline (BL) & prior to infusions 2, 5, & 8. PROMIS-29 has 7 domains (Depression, Anxiety, Physical Function, Pain Interference, Fatigue, Sleep Disturbance, Social Participation) & a pain intensity scale. PROMIS SFs Fatigue 7a & Pain Interference 6b were completed. Raw domain scores were converted to standardized T-scores with a mean of 50 (general population) & a SD of 10; higher scores represent more domain measured.

Results: At BL, treatment groups were balanced based on demographics & medical characteristics. Majority of pts were white (87.0% GLM, 86.2% IFX) & female (83.4% GLM, 82.4% IFX) with mean ages (yrs): GLM, 58.5 ± 12.96; IFX, 59.6 ± 13.24. Overall, 35.3% GLM & 42.9% IFX pts were bionaïve. Prior exposure to 1-2 biologics was similar across groups; but 20.1% GLM vs 10.8% IFX pts had exposure to ≥3 biologics. Methotrexate use was similar between GLM (76.4%) & IFX pts (75.0%). Based on mean PROMIS T-scores at BL (Table), Fatigue, Pain Interference, & Physical Function domains assessed by PROMIS indicated worse assessments than those of the general US population. Among all domains, mean Depression T-scores were closest compared with the general population (51.9 GLM, 52.5 IFX). Through the 8th infusion, GLM & IFX pts achieved meaningful improvement based on mean changes from BL in all PROMIS-29 domains & respective SFs. The percentage of GLM or IFX pts with improvements of ≥3, ≥5, or ≥ 10 units change in T-scores increased from infusion 2 through 8.

Table. Mean (SD) Change from Baseline PROMIS-29 Domain & Short Form T-Scores: 52 Week Analysis Set

	GLM	IFX	Least square mean difference (95% CI)*
Anxiety (4-item)	N=674	N=570	
Baseline	53.4 (10.13)	54.6 (10.53)	
Change from baseline at infusion 5	N=435	N=397	-0.41 (-1.40, 0.58)
	-2.0 (7.98)	-2.9 (8.41)	
Change from baseline at infusion 8	N=223	N=286	-0.29 (-1.54, 0.97)
	-2.6 (8.10)	-3.7 (7.86)	
Depression (4-item)	N=674	N=574	
Baseline	51.9 (9.83)	52.5 (10.21)	
Change from baseline at infusion 5	N=434	N=399	0.54 (-0.39, 1.47)
	-1.8 (7.51)	-1.5 (7.98)	
Change from baseline at infusion 8	N=225	N=287	0.49 (-0.72, 1.70)
	-2.1 (7.56)	-2.3 (7.89)	
Fatigue (4-item)	N=671	N=574	
Baseline	58.4 (9.91)	59.4 (9.99)	
Change from baseline at infusion 5	N=435	N=393	-0.26 (-1.24, 0.71)
	-2.0 (7.81)	-2.6 (7.88)	
Change from baseline at infusion 8	N=225	N=281	0.69 (-0.64, 2.03)
	-3.4 (8.72)	-3.1 (7.77)	
Short form Fatigue 7a	N=681	N=576	
Baseline	59.1 (8.51)	59.7 (8.25)	
Change from baseline at infusion 5	N=441	N=400	0.60 (-0.20, 1.40)
	-2.6 (6.74)	-2.4 (6.11)	
Change from baseline at infusion 8	N=228	N=287	1.01 (-0.11, 2.14)
	-3.2 (7.40)	-2.4 (6.35)	
Pain interference (4-item)	N=679	N=574	
Baseline	63.0 (7.56)	63.9 (7.80)	
Change from baseline at infusion 5	N=440	N=398	0.83 (-0.05, 1.71)
	-3.4 (7.02)	-3.1 (6.95)	
Change from baseline at infusion 8	N=227	N=284	1.84 (0.55, 3.13)
	-4.2 (8.23)	-3.1 (7.77)	
Short form Pain interference 6b	N=680	N=576	
Baseline	61.9 (7.45)	62.8 (7.54)	
Change from baseline at infusion 5	N=441	N=400	0.43 (-0.40, 1.26)
	-3.4 (6.66)	-3.3 (6.31)	
Change from baseline at infusion 8	N=228	N=287	1.31 (0.15, 2.48)
	-3.8 (7.88)	-3.2 (6.67)	
Physical function (4-item)	N=678	N=571	
Baseline	38.2 (6.79)	38.0 (6.90)	
Change from baseline at infusion 5	N=435	N=396	-0.31 (-1.01, 0.39)
	1.8 (5.26)	1.8 (5.37)	
Change from baseline at infusion 8	N=224	N=283	-0.76 (-1.73, 0.21)
	2.2 (5.64)	1.9 (5.85)	
Sleep disturbance (4-item)	N=671	N=569	
Baseline	54.6 (8.72)	N=55.5 (8.61)	
Change from baseline at infusion 5	N=428	N=395	-0.04 (-0.95, 0.88)
	-1.7 (7.69)	-2.0 (7.26)	
Change from baseline at infusion 8	N=221	N=281	0.23 (-0.96, 1.42)
	-1.4 (7.45)	-1.7 (7.61)	
Social participation (4-item)	N=673	N=574	
Baseline	43.7 (8.40)	42.9 (8.77)	
Change from baseline at infusion 5	N=437	N=396	-0.27 (-1.15, 0.61)
	2.5 (7.40)	2.5 (6.64)	
Change from baseline at infusion 8	N=225	N=283	-0.10 (-1.36, 1.16)
	3.2 (8.15)	3.4 (7.48)	

*The least square mean difference and confidence interval (CI) are based on analysis of covariance controlling for baseline PROMIS score using inverse probability of treatment weighted propensity score.
CI, confidence interval; GLM, golimumab; IFX, infliximab; PROMIS, Patient Reported Outcomes Measurement Information System; SD, standard deviation.

Conclusion: RA pts treated with GLM or IFX achieved comparable improvements across social, mental, & physical wellbeing PROMIS measures. PROMIS-29 was able to detect change to subsequent anti-tumor necrosis factor-a therapies.

PANLAR2021-ABS-1088

COMPARABLE SAFETY PROFILE OF GUSELKUMAB IN PSORIATIC ARTHRITIS AND PSORIASIS: RESULTS FROM PHASE 3 TRIALS THROUGH 1 YEAR

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Objectives: DISCOVER 1 and 2 (psoriatic arthritis, PsA) and VOYAGE 1 and 2 (psoriasis, PsO) are phase-3 trials of guselkumab (GUS), an anti-interleukin-23p19 subunit monoclonal antibody. This study compared safety results through up to 1 year of GUS in PsA and PsO patients.

Methods: In DISCOVER, 1120 patients with active PsA despite standard therapy were treated. Most patients were biologic-naïve; ~30% in DISCOVER 1 had previous exposure to 1-2 tumor necrosis factor inhibitors. Concomitant methotrexate (MTX, 57%), oral corticosteroids (17%), and nonsteroidal anti-inflammatory drugs (NSAIDs, 64%) were permitted. Patients were randomized to subcutaneous (SC) GUS 100 mg at Week (W) 0, W4, then every 8 W (Q8W); GUS 100 mg Q4W; or placebo (PBO). At W24, PBO patients were switched to GUS 100 mg Q4W. In VOYAGE, in which concomitant MTX use was prohibited, 1245 patients with moderate to severe PsO were treated and randomized to SC GUS 100 mg at W0, W4, W12, then Q8W; or PBO at W0, W4, W12, with crossover to GUS at W16, W20, then Q8W. Adverse events (AEs) and laboratory parameters, analyzed by National Cancer Institute-Common Terminology Criteria for AEs (NCI-CTCAE) toxicity grades, were summarized through the PBO-controlled periods and 1 year.

Results: Safety profiles were generally consistent across the GUS PsO and PsA clinical programs (Table). Time-adjusted incidence rates for numbers of AEs, serious AEs, serious infections, malignancy, major adverse cardiovascular events (MACE), and AEs leading to discontinuation were generally similar between PsO and PsA. No cases of anaphylaxis or opportunistic infections were reported. Proportions of patients with decreased neutrophil counts and

Treatment-Emergent AEs During PBO-controlled Period and Through 1 Year: VOYAGE & DISCOVER Trials

	Pooled VOYAGE 1&2			Pooled DISCOVER 1&2					
Time Period	W0-16		Through 1Yr	W0-24[b]			Through 1Yr		
(N=)	PBO (422)	GUS Q8W (823)	Combined GUS[a] (1221)	PBO[c] (372)	GUS Q8W (375)	GUS Q4W (373)	GUS Q8W (375)	GUS Q4W (373)	Combined GUS (1100)
Total pt-yrs of follow-up	128	255	974	173	173	172	384	385	973
Incidence/100 pt-yrs (95% CI)[d]									
AEs	317 (287,349)	330 (308,353)	259 (249, 270)	219 (198,243)	256 (232,281)	221 (200, 245)	218 (203,233)	177 (164,191)	191 (182, 199)
SAEs	5 (2, 10)	6 (4, 10)	6 (5, 8)	9 (5, 15)	4 (2, 8)	5 (2, 10)	6 (4, 9)	4 (2, 7)	6 (4, 7)
AEs leading to study agent d/c	3 (0.9, 8)	4 (2, 8)	2 (2, 4)	4 (2, 8)	3 (1, 7)	7 (4, 12)	2 (1, 4)	4 (2, 6)	3 (2, 5)
Infections	86 (71, 104)	98 (86, 111)	98 (92, 104)	58 (48,71)	58 (47, 71)	63 (51, 76)	58 (50, 66)	53 (46, 61)	55 (50, 60)
Serious Infections	0. 8 (0, 4)	0.4 (0, 2)	1 (0.5, 2)	4 (2, 8)	0.6 (0, 3)	2 (0.4, 5)	2 (0.6, 3)	1 (0, 2)	2 (0.9, 3)
All Malignancy	0 (0,2)	0.4 (0,2)	1 (0.4, 2)	0.6 (0, 3)	1 (0, 4)	0 (0, 2)	0.5 (0, 2)	0 (0, 0. 8)	0 (0,1)
MACE	0 (0, 2)	0.4 (0, 2)	0.4 (0, 1)	0.6 (0, 3)	0 (0, 2)	0.6 (0, 3)	0 (0, 0.8)	0.3 (0, 1.4)	0.1 (0, 0.6)
% pts with ≥1 injection site reaction	3.1	4.5	5.0	0.3	1.3	1.1	1.6	2.4	1.7

AE, adverse event; CI, confidence interval; d/c, discontinuation; GUS, guselkumab; MACE, major adverse cardiovascular event; PBO, placebo; Pt, patient; Q4W, every 4 weeks; Q8W, every 8 weeks; SAE, serious adverse event; W, week; Yr, year
[a]Placebo crossover pts were included in the combined GUS column after crossover to GUS
[b]For all pts who d/c study treatment early with the last dose of PBO/GUS prior to W24 and who did not receive any PBO/GUS at or after Wk24, all data including the final safety follow-up visit collected through 1 year were included
[c]For pts in PBO group who switched to GUS due to cross-over or inadvertently, only data prior to first administration of GUS were included.
[d]CI based on an exact method assuming observed number of events follows a Poisson distribution

elevations in hepatic transaminases were slightly higher in PsA versus PsO. These abnormalities were mostly of NCI-CTCAE Grade 1 or 2 (<LLN-1000/mm^3 for neutrophils; <5.0 x ULN for AST/ ALT), generally transient, required no medical interventions, resolved spontaneously, and did not lead to interruption or discontinuation of treatment. Through 1 year, proportions of patients with ALT/AST elevations in PsA trials were slightly higher for GUS Q4W than Q8W and in patients with versus without baseline MTX use.

Conclusion: The GUS safety profile was generally consistent in PsA and PsO GUS-treated patients through 1 year of the DISCOVER and VOYAGE trials.

PANLAR2021-ABS-1368

LONG-TERM EFFICACY AND SAFETY OF UPADACITINIB IN PATIENTS FROM CHINA, BRAZIL, AND SOUTH KOREA WITH RHEUMATOID ARTHRITIS AND AN INADEQUATE RESPONSE TO CONVENTIONAL SYNTHETIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS: RESULTS AT 64 WEEKS

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Objectives: To assess the efficacy and safety of upadacitinib (UPA), an oral Janus kinase inhibitor, up to 64 wks (long-term extension; LTE) in patients (pts) from China, Brazil, and South Korea with rheumatoid arthritis (RA) and prior inadequate response to conventional synthetic disease-modifying antirheumatic drugs (csDMARD-IR).

Methods: Pts were randomized to 12 wks of blinded treatment with UPA 15 mg once daily (QD) or PBO, in combination with csDMARDs. From Wk 12 onward, pts could continue to receive open-label UPA 15 mg QD. Efficacy endpoints were analyzed by original randomized treatment group sequences over 64 wks and included American College of Rheumatology (ACR) responses, and key remission and low disease activity measures. Non-responder imputation was used to handle missing data for binary endpoints. Treatment-emergent adverse events (TEAEs) per 100 patient-years (PY) were summarized for pts receiving ≥1 dose of UPA from baseline through to Wk 64.

Results: Of 338 randomized pts who received ≥1 dose of study drug, 310 (91.7%) entered the LTE and 275 (81.4%) completed 64 weeks of treatment. Among those initially randomized to UPA, the proportion of pts achieving 20%/50%/70% improvement in ACR criteria, and key remission and low disease activity measures increased over 64 weeks of treatment (Figure). Improvements from baseline in the Health Assessment Questionnaire-Disability Index and pts' assessment of pain were observed over 64 weeks of UPA treatment (data not shown). By Week 64, efficacy results for pts who switched from PBO to UPA at Week12 followed a similar trajectory to those originally randomized to UPA.

The observed rate of serious infections was 8.1 events/100 PY. Herpes zoster events were mostly non-serious, involving only 1 or 2 dermatomes. Most cases of hepatic disorders were Grade 1 or 2 hepatic transaminase elevations. There was 1 case of venous thromboembolic event (VTE; concurrent pulmonary embolism and deep vein thrombosis [DVT] in a patient with a history of DVT) and 3 cases of malignancy. Adjudicated major adverse cardiovascular events (Table and Figure) occurred in 2 pts (1 with non-fatal myocardial infarction and 1 with non-fatal stroke) who had underlying risk factors for cardiovascular disease. There were no deaths, active tuberculosis, or renal dysfunction.

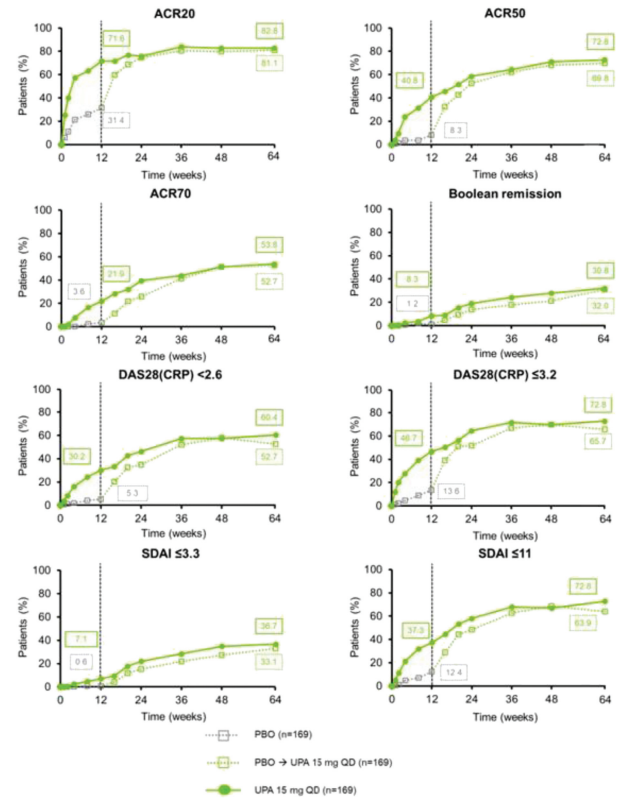
Conclusion: UPA 15 mg was effective in treating the signs and symptoms of RA and in improving physical function over 64 weeks with no new safety signals in csDMARD-IR pts with RA from China, Brazil, and South Korea.

Table TEAEs at Wk 64

Event (E/100 PY)	UPA 15 mg (n=322; PY=334.5)
Any AE	421.5 (399.8–444.1)
Serious AE	19.1 (14.7–24.4)
AE leading to discontinuation of study drug	9.0 (6.1–12.8)
Deaths[a]	0
AEs of special interest	
Serious infection	8.1 (5.3–11.7)
Opportunistic infection	0.9 (0.2–2.6)
Herpes zoster	9.0 (6.1–12.8)
Hepatic disorder	42.2 (35.5–49.7)
Gastrointestinal perforation (adjudicated)	0.3 (0.0–1.7)
Any malignancy (excluding NMSC)	0.6 (0.1–2.2)
NMSC	0.3 (0.0–1.7)
MACE (adjudicated)[b]	0.6 (0.1–2.2)
VTE (adjudicated)[c]	0.3 (0.0–1.7)
Anemia	11.1 (7.8–15.2)
Neutropenia	11.7 (8.3–15.9)
Lymphopenia	7.8 (5.1–11.4)
CPK elevation	11.1 (7.8–15.2)

[a]Including non-treatment-emergent deaths. [b]Defined as cardiovascular death, non-fatal myocardial infarction, and non-fatal stroke. [c]Including DVT and pulmonary embolism.
AE, adverse event; CPK, creatine phosphokinase; E, events; MACE, major adverse cardiovascular event; NMSC, non-melanoma skin cancer

Figure Efficacy over 64 wks (non-responder imputation)



PANLAR2021-ABS-1095

INTEGRATED SAFETY PROFILE OF UPADACITINIB WITH UP TO 4.5 YEARS OF EXPOSURE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: To evaluate long-term integrated safety of oral Janus kinase inhibitor, upadacitinib (UPA), in patients (pts) with rheumatoid arthritis (RA) in the phase 3 SELECT study (cutoff date June 30, 2020).

Methods: Updated data from 6 randomized UPA RA trials were analyzed. Treatment-emergent adverse events (TEAEs; onset after first dose and ≤ 30 days after last dose of study drug or ≤ 70 days for adalimumab [ADA]) including AEs of special interest were summarized: pooled UPA 15 mg once daily (QD; UPA15, 6 trials); pooled UPA 30 mg QD (UPA30, 4 trials); methotrexate (MTX) and ADA (1 trial). TEAEs were reported as exposure-adjusted adverse event rates (EAERs; events/100 pt-years [E/100 PY]), both incident and recurrent events.

Results: 4413 pts (UPA15, n = 3209; UPA30, n = 1204) received ≥1 dose of UPA, providing 10,115.4 PY of exposure. EAERs for AEs, serious AEs (SAEs), and AEs leading to discontinuation were similar for UPA15, MTX, and ADA; rates for UPA30 were numerically higher than UPA15. Table. Most common AEs were upper respiratory tract infection, nasopharyngitis, and urinary tract infection for both UPA doses, and increased creatine phosphokinase (CPK) for UPA30 only. Pneumonia was the most common SAE for both UPA15 and UPA30. Serious infection rates were similar for UPA15, MTX, and ADA but higher for UPA30. Fig. Rates of herpes zoster (HZ) were higher for both UPA groups (dose- dependent) vs MTX and ADA. Most HZ cases with UPA were non-serious (94%) and involved a single dermatome (74%). CPK elevations were more common for both UPA groups (dose-dependent) vs MTX and ADA. EAERs of adjudicated gastrointestinal perforations were < 0.1 and 0.2 E/100 PY for UPA15 and UPA30, respectively. Rates of non-melanoma skin cancer, anemia, and neutropenia were higher with UPA30 vs other treatment groups. Anemia and neutropenia events were generally mild/moderate with discontinuation uncommon (<0.4%). Rates of AEs of special interest, including major adverse cardiovascular and venous thromboembolic events, were broadly similar across groups. Rate of deaths in UPA pts was not higher than expected in general population (standardized mortality ratio [95% confidence interval (CI)]: UPA15, 0.43 [0.29, 0.63]; UPA30, 0.68 [0.40, 1.08]). These data are presented in table and figure below.

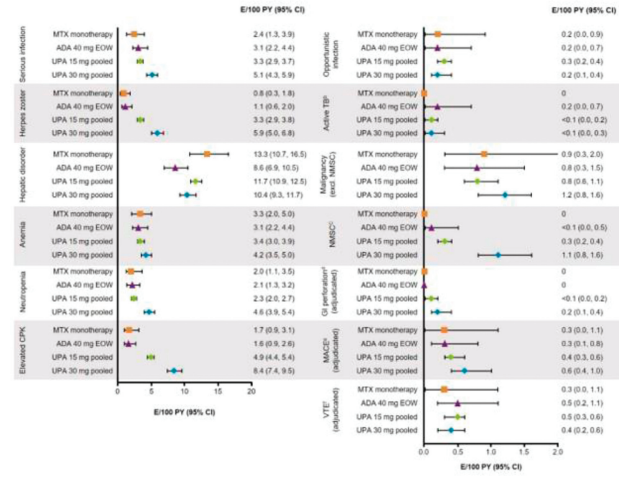
Table TEAEs in patients treated with UPA, MTX, and ADA

	UPA 15 mg QD	UPA 30 mg QD	ADA 40 mg EOW	MTX
n	3209	1204	579	314
Exposure				
Total, PY	7023.8	3091.6	1051.8	637.4
Mean (SD), weeks	114 (64)	134 (66)	95 (70)	106 (67)
Median (range), weeks	136 (0, 232)	160 (0, 231)	118 (2, 231)	144 (1, 221)
E/100 PY (95% CI)				
Any AE	230.7 (227.2, 234.3)	283.6 (277.7, 289.6)	216.6 (207.8, 225.7)	227.8 (216.2, 239.8)
Any SAE	13.0 (12.2, 13.9)	18.8 (17.3, 20.4)	13.3 (11.2, 15.7)	10.4 (8.0, 13.2)
Any AE leading to discontinuation of study drug	5.6 (5.0, 6.1)	8.5 (7.5, 9.6)	6.8 (5.3, 8.5)	6.3 (4.5, 8.5)
Deaths[a]	0.4 (0.3, 0.6)	0.6 (0.3, 0.9)	0.9 (0.4, 1.6)	0.5 (0.1, 1.4)

[a]Both treatment and non-treatment-emergent deaths

EOW, every other week

Figure TEAEs of special interest in patients treated with UPA, MTX, and ADA[a]



MTX: n=314, PY=637.4; ADA 40 mg EOW: n=579, PY=1051.8; UPA 15 mg pooled: n=3209, PY=7023.8; UPA 30 mg pooled: n=1204, PY=3091.6

AEs are defined using standardized MedDRA query or company MedDRA query search criteria

[a]Patients who switched from placebo, ADA, or MTX to UPA were included in the UPA analysis set from the start of UPA, while those who switched from UPA to ADA were included in the ADA analysis set from the start of ADA, and were censored at the time of switch. MTX monotherapy was censored at time of rescue to combination therapy (addition of UPA). [b]ADA, 2 events; UPA 15 mg, 6 events; UPA 30 mg, 3 events. [c]UPA 15 mg, 20 events reported in 20 patients (no recurrent events); UPA 30 mg, 35 events reported in 23 patients. [d]UPA 15 mg, 5 events; UPA 30 mg, 6 events. [e]MACE defined as cardiovascular death, non-fatal myocardial infarction, and non-fatal stroke. [f]VTE defined as deep vein thrombosis and pulmonary embolism

ADA, adalimumab; CI, confidence interval; CPK, creatine phosphokinase; E/100 PY, events per 100 patient-years; EOW, every other week; GI, gastrointestinal; MACE, major adverse cardiovascular event; MedDRA, Medical Dictionary for Regulatory Activities; MTX, methotrexate; NMSC, non-melanoma skin cancer; PY, patient-years; TB, tuberculosis; TEAE, treatment-emergent adverse event; UPA, upadacitinib; VTE, venous thromboembolic event

Conclusion: Updated safety profile of UPA with up to 4.5 years of exposure in pts with RA was comparable to previous analyses, with no new safety signals reported. Except for HZ and elevated CPK, the safety profile of UPA15, the approved dose for RA, was similar to that observed for ADA.

PANLAR2021-ABS-1099

EFFICACY OF GUSELKUMAB, A MONOCLONAL ANTIBODY THAT SPECIFICALLY BINDS TO THE P19 SUBUNIT OF IL-23, ON AXIAL- RELATED ENDPOINTS IN PATIENTS WITH ACTIVE PSA WITH IMAGING-CONFIRMED SACROILIITIS: WEEK-52 RESULTS FROM TWO PHASE 3, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDIES

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Objectives: Guselkumab (GUS), an IL-23 inhibitor, improved axial symptoms of active psoriatic arthritis (PsA) through week (W)24 in a pooled analysis from phase 3 DISCOVER (D)1&2 trials.[1] This study assessed GUS efficacy through 1 year in PsA patients (pts) with imaging-confirmed sacroiliitis in D1&2.

Methods: In D1 (n = 381) and D2 (n = 739), active PsA pts (D1: ≥3 swollen, ≥3 tender joints, C-reactive protein [CRP] ≥0.3 mg/dL; D2: ≥5 swollen, ≥5 tender joints, CRP ≥0.6 mg/dL; both despite standard therapies) were randomized 1:1:1 to GUS 100 mg every (Q)4 W, GUS 100 mg Q8W (W0, W4, then Q8W), or placebo (PBO). PBO pts crossed over to GUS 100 mg Q4W (PBOàQ4W) at W24. Only pts

with sacroiliitis at baseline (BL) who had either imaging confirmation of past sacroiliitis or pelvic radiograph confirmation of sacroiliitis at screening were included (D1 and 2 pooled data). Efficacy was assessed by BASDAI score, BASDAI50, modified BASDAI (mBASDAI; excludes Q#3), spinal pain (BASDAI Q#2), ASDAS(-CRP) score, and ASDAS responses of inactive disease (<1.3), major improvement (decrease ≥2.0), & clinically important improvement (decrease ≥1.1) through W52. Pts who met treatment failure rules or had missing data were counted as non-responders through W24; pts with missing data were counted as nonresponders from W24-52. A score change of 0 was assigned for treatment failures through W24, and pts who discontinued or had missing data were set to 0 for W24-52. HLA-B27 was assayed in 190 pts.

Results: 312 pts across D1 and 2 presented with imaging confirmed sacroiliitis (PBO, 118; GUS Q8W, 91; GUS Q4W, 103). At BL, mean BASDAI and ASDAS scores ranged from 6.5-6.6 & 3.9-4.0, respectively; 57/190 (30%) pts were HLA-B27+, and 133/190 (70%) were HLA-B27-. Improvements in axial symptoms of PsA were greater in the GUS Q4W & Q8W groups vs PBO through W24. The LS mean changes from BL in BASDAI, spinal pain, mBASDAI, and ASDAS were maintained from W24 to W52 in GUS groups (Table); improvements from BL to W52 in PBOàQ4W group were similar to those in GUS groups. Similar trends were observed for the proportions of pts achieving BASDAI50 (Table) and ASDAS responses of inactive disease, major improvement, and clinically important improvement (Figure) at W52. Efficacy at W52 trended similarly between HLA-B27+ & HLA-B27- pts.

Table. Efficacy results of GUS at weeks 24 and 52 in PsA patients with axial involvement.[a]

	GUS100 mg every 4 weeks (n=103)	GUS 100 mg every 8 weeks (n=91)	PBO →GUS 100 mg every 4 weeks (n=118)
Week 24			
LS Mean change in BASDAI (0-10)	-2.7*	-2.7*	-1.3
LS Mean change in spinal pain[b]	-2.5*	-2.7*	-1.2
LS Mean change in modified BASDAI[d]	-2.6*	-2.7*	-1.4
BASDAI50[c], %	(38%) 36/95**	(40%) 34/84 **	(19%) 21/110
LS Mean change in ASDAS	-1.4*	-1.4*	-0.7
Week 52			
LS Mean change in BASDAI (0-10)	-3.1	-2.8	-2.8
LS Mean change in spinal pain[b]	-3.0	-2.7	-2.7
LS Mean change in modified BASDAI[d]	-3.1	-2.7	-2.8
BASDAI50[c], %	48% (46/95)	43% (36/84)	49% (54/110)
LS Mean change in ASDAS	-1.7	-1.6	-1.6

[a]Pts with axial involvement consistent with sacroiliitis at baseline and either a history of imaging confirmation or pelvic radiograph at screening (pooled data from DISCOVER-1 & 2)
[b]Question #2 of the BASDAI.
[c] Excludes question #3 of the BASDAI.
[d]Pts with BASDAI > 0 at baseline.
Unadjusted p-values as noted: *p < 0.001, ** p < 0.01. No statistical comparisons were performed at Week 52.
ASDAS, Ankylosing Spondylitis Disease Activity Score; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; GUS, guselkumab; LS, least squares; PsA, psoriatic arthritis; Pts, patients

Conclusion: Improvements in axial symptoms were maintained through W52 in GUS-treated pts with active PsA who had imaging-confirmed sacroiliitis.

Reference:

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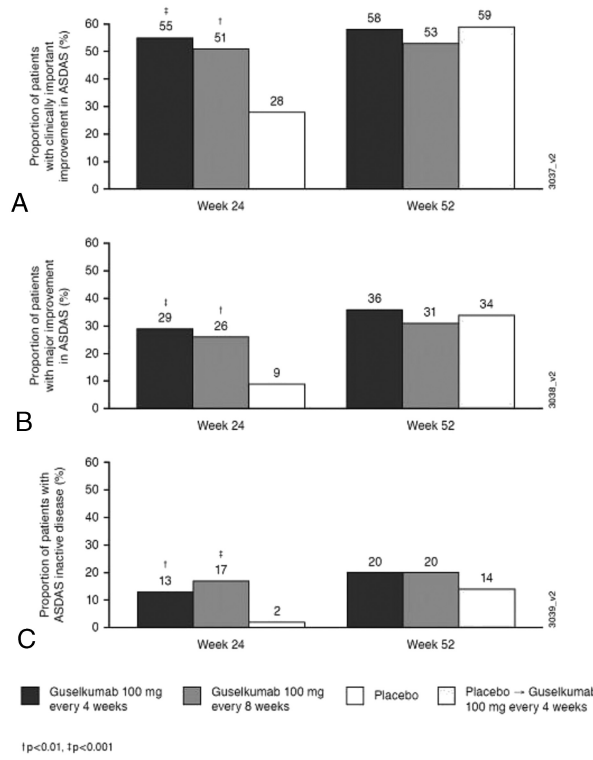
Figure. Proportion of patients with ASDAS clinically important improvement, major improvement, and inactive disease



ASDAS, Ankylosing Spondylitis Disease Activity Score

PANLAR2021-ABS-1100

EFFICACY AND SAFETY OF GUSELKUMAB IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS WHO DEMONSTRATED INADEQUATE RESPONSE TO TUMOR NECROSIS FACTOR INHIBITION: WEEK 24 RESULTS OF A PHASE 3B, RANDOMIZED, CONTROLLED STUDY

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Objectives: Guselkumab (GUS), an IL-23p19 subunit monoclonal antibody, showed efficacy in Ph3 PsA studies (DISCOVER-1[1]&2[2]). This study evaluated GUS efficacy and safety in PsA patients (pts) with inadequate response (IR) to tumor-necrosis-factor inhibition (TNFi) through Week (W)24 of the Ph3b COSMOS study.

Methods: In this randomized, double-blind, placebo (PBO)-controlled trial, 285 pts with active PsA (≥3 swollen and ≥3 tender joints) who showed lack of benefit or intolerance to 1-2 TNFi were randomized 2:1 to subcutaneous GUS 100 mg (n = 189) at W0, W4, then every 8 W (Q8W) through W44 or PBO (n = 96) with crossover to GUS at W24. At W16, pts who met early escape (EE) criteria (<5% improvement in tender and swollen joint counts) could switch from PBO to GUS. The primary endpoint was ACR20 response at W24. Non-responders were pts missing ACR20 data at W24 or who met treatment failure criteria (including EE criteria at W16). Subgroup analyses assessed consistency of primary treatment effect based on demographics, disease characteristics, and medication use at baseline. Prespecified sensitivity analyses

included 'Per-Protocol' (PP) (excluded pts with major protocol deviations) and 'EE-Correction' (included pts incorrectly routed to EE) analyses. Adverse events (AEs) summarized by treatment received.

Results: Baseline characteristics were similar across GUS and PBO pts, though a higher proportion of females and more severe joint symptoms were seen in the GUS group. At W24, 44.4% GUS vs 19.8% PBO pts achieved ACR20 ($p < 0.001$) (Fig). GUS was superior to PBO for all major secondary endpoints. Efficacy was consistent across subgroups defined by baseline characteristics, including in pts who discontinued prior TNFi use due to inadequate efficacy (84% GUS vs 81% PBO) and safety (16% GUS vs 19% PBO) (Table). 20 pts (12 GUS, 8 PBO) were incorrectly routed to EE. Results of PP (48.8% vs 23.8%) and EE-correction (48.1% vs 19.8%) sensitivity analyses were consistent with the primary analysis (Fig). AEs were similar between GUS and PBO pts (Table).

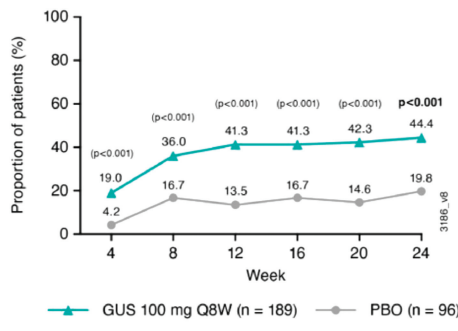
Table. Baseline characteristics of, and adverse events reported by, randomized and treated COSMOS patients

	GUS 100 mg Q8W (N=189)	PBO (N=96)
Age, y	49	49
Sex, Female	54%	46%
Duration of PsA, y	8.3	8.7
Body mass index, kg/m^2	29	31[a]
Swollen (0-66) / tender (0-68) joint count	10 / 21	9 / 18
Pt pain / Pt global arthritis / Physician global disease, 0-10 cm VAS	6.5 / 6.5 / 6.9	6.0 / 6.2 / 6.4
Health Assessment Questionnaire-Disability Index, 0-3	1.3[b]	1.2
C-reactive protein, mg/dL	1.2[b]	1.2
Methotrexate use at baseline	56%	53%
Psoriatic body surface area, %	17.9	13.4
Number of prior TNFi: 1 / 2	88% / 12%	89% / 11%
Reason for prior TNFi discontinuation: Efficacy / Safety	84% / 16%*	81% / 19%*
Pts with ≥1 AE / SAE	37% / 3%	48% / 3%
Pts with ≥1 infection / serious infection	18% / 0%	20% / 0%
Pts with ≥1 AE leading to study agent discontinuation	2%	2%
Pts with ≥1 malignancy	0.4%	0
Pts with ≥1 injection-site reaction	2%	1%

Data shown are mean or %. [a]N=95; [b]N=188. *Missing for 1 patient
AE, adverse event; GUS, guselkumab; PBO, placebo; PsA, psoriatic arthritis; pts, patients; SAE, serious adverse event; TNFi, tumor necrosis factor inhibitor; VAS, visual analog scale

Conclusion: GUS 100 mg Q8 weeks elicited a significant higher ACR20 response; Results of prespecified sensitivity and subgroup analyses were consistent. GUS safety in TNF-IR PsA pts through W24 is consistent with the favorable GUS safety profile in psoriasis and biologic-naïve PsA pts.[3]

Figure. ACR 20 Response through Week 24 of COSMOS.



Bolded p values are adjusted for multiplicity of testing; p values shown in parentheses are not adjusted for multiplicity of testing

ACR, American College of Rheumatology; GUS, guselkumab; PBO, placebo; Q8W, every 8 weeks

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PANLAR2021-ABS-1089

IN PHASE-3 TRIALS DISCOVER 1 AND 2, GUSELKUMAB REDUCED FATIGUE OVER 52 WEEKS IN PATIENTS WITH PSORIATIC ARTHRITIS AND DEMONSTRATED INDEPENDENT TREATMENT EFFECTS ON FATIGUE AFTER ADJUSTMENT FOR CLINICAL RESPONSE (ACR 20)

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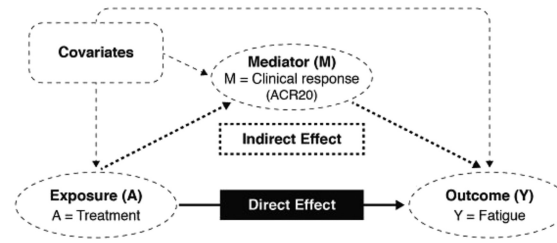
Objectives: DISCOVER (D)1 and 2 are phase-3 trials of guselkumab (GUS, an IL-23 inhibitor) in patients (pts) with psoriatic arthritis (PsA). In D1 and 2, treatment with GUS vs placebo (PBO) significantly improved ACR20 and other measures of arthritis and psoriasis at Week (W)24,[1,2] and through 1 year.[3,4] This study evaluated the effect of GUS on fatigue in D1 and 2 using the pt reported outcome (PRO) FACIT-Fatigue.[5]

Methods: D1 and 2 enrolled biologic naïve pts (except ~30% D1 pts who received 1-2 TNFi) with active PsA, despite nonbiologic DMARDS/NSAIDs. Pts were randomized 1:1:1 to subcutaneous GUS 100 mg at W0, W4, then every 8 W (Q8W); GUS 100 mg Q4W; or PBO. At W24, PBO pts crossed over to GUS Q4W (PBOàQ4W). Concomitant treatment with select non-biologic DMARDS, oral corticosteroids, and NSAIDs was allowed. The FACIT-Fatigue (13-item PRO) assessed fatigue and its impact on daily activities and function, with higher score denoting less fatigue. Clinically meaningful change is ≥4 points.[5] Mediation analysis[6] was applied to the treatment effect of GUS on FACIT-Fatigue to estimate natural direct/indirect effects, after adjusting for ACR20 response (Fig 1).

Results: At baseline in D1 and 2, the mean FACIT-Fatigue scores (SD): 30.4 (10.4) and 29.7 (9.7), respectively, indicating that pts with PsA experienced fatigue worse than general population. At W24, treatment with GUS vs PBO led to significant improvements in FACIT-Fatigue scores, as early as W16 in D1 and W8 in D2. GUS Q4W and Q8W showed similar improvements in fatigue, and the improvements at W24 were maintained through W52 (Fig2). After crossover to GUS Q4W at W24, PBO pts achieved FACIT-Fatigue scores comparable to GUS pts (Fig2). At W24, 54% > 63% GUS vs 35% > 46% PBO pts achieved clinically meaningful improvement (≥4 points) in FACIT-Fatigue ($P \leq 0.003$). At W52, 61% > 70% GUS & PBOàQ4W pts reached this improvement. Mediation analysis at W24 demonstrated GUS

Figure 1. Mediation Analysis: Guselkumab has Direct Effects and Indirect Effects (mediated through ACR 20) on Fatigue in PsA.

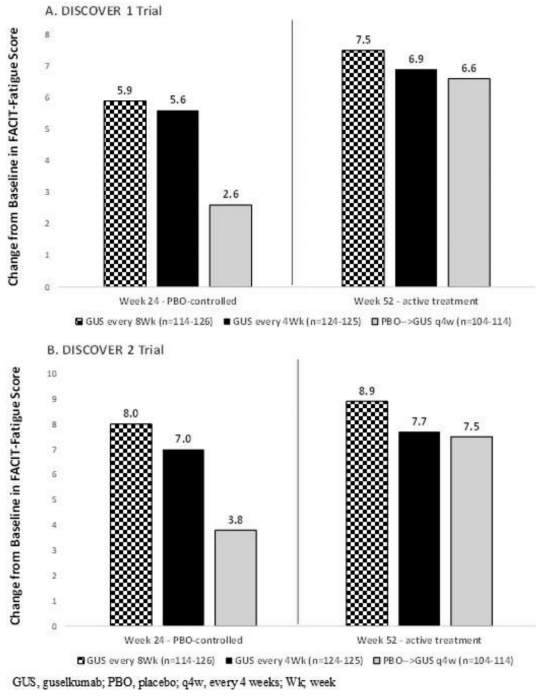


Mediation Analysis			
	Effect	**GUS 100 mg q8W vs. PBO (95% CI)**	**GUS 100 mg q4W vs. PBO (95% CI)**
DISCOVER-1	Total Effect	3.1 (1.0, 5.2) ($p < 0.02$)	3.8 (1.9, 5.4) ($p < 0.02$)
	% Direct Effect	11.7%	68.5%
	% Indirect Effect mediated by ACR20	88.3%	31.5%
DISCOVER-2	Total Effect	4.0 (2.4, 5.5) ($p < 0.02$)	3.6 (2.1, 5.0) ($p < 0.02$)
	% Direct Effect	36.3%	69.7%
	% Indirect Effect mediated by ACR 20	63.7%	30.3%
The mediation analysis shows that for total treatment effect on fatigue, 11.7%-36.3% with GUS 100 mg q8w and 68.5%-69.7% with GUS 100 mg q4w are direct effects, indicating additional patient benefit beyond clinical response.			

3000_v3

ACR20, American College of Rheumatology 20% improvement; CI, confidence interval; GUS, guselkumab; PBO, placebo; PsA, psoriatic arthritis; q4w, every 4 weeks; q8w, every 8 weeks

Figure 2. Changes from Baseline in FACIT-Fatigue Over 1 Year in the DISCOVER 1 and 2 Trials of Guselkumab in Patients with Psoriatic Arthritis. Observed changes from baseline.



GUS, guselkumab; PBO, placebo; q4w, every 4 weeks; Wk, week

had independent positive treatment effects on fatigue (Q8W, 12% > 36%; Q4W, 69% > 70%) after adjustment for ACR20 response (Fig 2).

Conclusion: In D1 and 2, GUS improved fatigue vs PBO during PBO-controlled periods and maintained improvements through 1 year of active treatment. Substantial proportions of those effects were independent of the effects on ACR20, especially for the Q4W dosing group.

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PANLAR2021-ABS-1090

GUSELKUMAB EFFICACY IN ADULT PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS BY BASELINE DEMOGRAPHIC AND DISEASE CHARACTERISTICS: POOLED RESULTS OF TWO PHASE 3, RANDOMIZED, PLACEBO-CONTROLLED STUDIES

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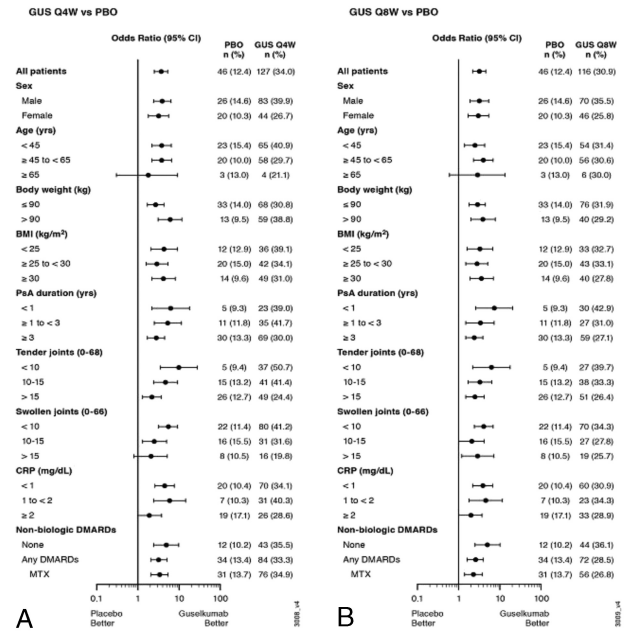
Objectives: Guselkumab (GUS), an IL-23p19 subunit monoclonal antibody, showed consistent efficacy in psoriasis (PsO) patients (pts) regardless of body weight/BMI[1] and across joint/skin endpoints at Week (W)24 of phase 3 DISCOVER(D)-1[2] and 2[3] PsA trials. We assessed GUS efficacy at W24 across baseline (BL) demographic & disease characteristics subgroups by pooling D1 and 2 data.

Methods: Pts with active PsA in D1 (≥3 swollen and ≥ 3 tender joints, CRP ≥0.3 mg/dL; 31% received 1-2 prior TNFi) and D2 (≥5 swollen & ≥5 tender joints, CRP ≥0.6 mg/dL; biologic-naïve) were randomized 1:1:1 to GUS 100 mg every 4 W (Q4W); GUS 100 mg at W0, W4, then Q8W; or placebo (PBO). GUS effects on joint (ACR50) & skin (Investigator's Global Assessment [IGA = 0/1 + ≥2-grade reduction from W0] in pts with ≥3% body surface area [BSA] PsO and IGA ≥2 at W0) were evaluated by BL characteristics. Missing data were imputed as nonresponse. Logistic regression compared GUS vs PBO.

Results: BL characteristics of D1 (N = 381) and D2 (N = 739) pts were generally well-balanced across groups.[1,2] On average, 1120 pooled pts were 47 yrs and 85 kg at W0; 52% were male; 96% were white. At W24, 34% (127/373) GUS Q4W and 31% (116/375) GUS Q8W pooled vs 12% (46/372) PBO pts achieved ACR50; respective odds ratios (ORs) (95% CIs) were 3.7 (2,5) and 3.2 (2,5). GUS Q4W and Q8W substantially improved joint signs and symptoms vs PBO, regardless of sex (ORs 3-4), age (2-4), body weight/BMI (3-6), PsA duration (2-7), swollen/tender joint count (2-10), CRP (2-6), or nbDMARD/MTX use (2-5) at BL. In pooled pts with ≥3% BSA PsO & IGA ≥2 at W0, 71% (193/273) GUS Q4W and 66% (171/258) GUS Q8W vs 18% (47/261) PBO pts had an IGA 0/1 response at W24; respective ORs (95% CIs) were 11 (7,16) & 9 (6,14). The benefit of GUS in achieving clear/almost clear skin was seen regardless of sex (ORs 7-15), age (8-15), body weight/BMI (9-12), PsA duration (8-12), % BSA (7-25), CRP (8-13), or nbDMARD/MTX use (8-21) at BL. Small sample sizes in several pt subgroups (eg, >65 yrs, swollen joint count >15) limited data interpretation. Consistent results were seen for other joint (ACR20/70), skin (PASI90/100), and soft tissue (enthesitis) outcomes. These data are presented Figures 1 and 2.

Figure 1. ACR50 Response at Week 24 by Select Baseline Characteristics: Pooled Results of DISCOVER-1 and DISCOVER-2



ACR, American College of Rheumatology; BMI, body mass index; CI, confidence interval; CRP, C-reactive protein; DMARDs, disease-modifying anti-rheumatic drugs; GUS, guselkumab; MTX, Methotrexate; PBO, placebo; PsA, psoriatic arthritis; Q4W, every 4 weeks

Conclusion: The benefits of GUS 100 mg Q4W and Q8W in substantially improving signs and symptoms of active PsA appeared to be consistent irrespective of the BL characteristics assessed.

References:

1. Armstrong A et al. World Congress of Dermatology 2019, P524
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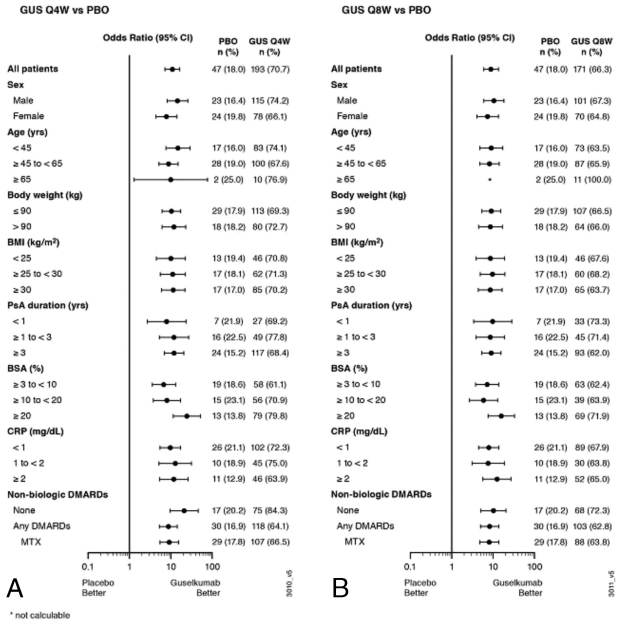
Figure 2. IGA 0/1 Response at Week 24 by Select Baseline Characteristics: Pooled DISCOVER-1 and DISCOVER-2 Patients with ≥3% BSA psoriasis and IGA ≥2 at W0



BMI, body mass index; BSA, body surface area; CI, confidence interval; CRP, C-reactive protein; DMARDs, disease-modifying anti-rheumatic drugs; GUS, guselkumab; IGA, Investigator's Global Assessment; MTX, Methotrexate; PBO, placebo; PsA, psoriatic arthritis; Q4W, every 4 weeks

PANLAR2021-ABS-1091

EFFICACY AND SAFETY OF INTRAVENOUS GOLIMUMAB IN ANKYLOSING SPONDYLITIS PATIENTS WITH EARLY VS LATE DISEASE THROUGH WEEK 52 OF GO-ALIVE STUDY

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Objectives: The GO-ALIVE study assessed efficacy and safety of intravenous golimumab (IV GLM) in patients (pts) with ankylosing spondylitis (AS).[1,2] This post hoc analysis assessed efficacy and safety of IV GLM in AS pts with early disease (ED) vs late disease (LD) based on pt-reported duration of inflammatory back pain (IBP).

Methods: In this phase 3, double-blind, placebo (PBO)-controlled trial, pts with active AS were randomized (1:1) to IV GLM 2 mg/kg at Week (W)0, W4, then every 8 W (Q8W) or PBO at W0, W4, and W12 with crossover to IV GLM at W16, W20, then Q8W through W52. The primary endpoint: achievement of SpondyloArthritis International Society 20% improvement response (ASAS20) at W16. A total of 208 pts was grouped by quartiles based on self-reported duration of IBP. Efficacy and safety in 60 ED pts (1st quartile) were compared with 52 LD pts (4th quartile).

Results: For the overall study population, mean duration of IBP symptoms: 10.9 years (y); mean time since diagnosis: 5.5y. The range of mean duration of IBP symptoms: ED pts, 2.3y (GLM) to 2.6y (PBO); LD pts, 23.5y (GLM) to 24.4y (PBO). At W16, ASAS20 was achieved by 72% GLM vs 32% PBO pts with ED and 67% GLM vs 21% PBO pts with LD. ED pts had numerically better response than LD pts in Bath Ankylosing Spondylitis Functional Index, Bath Ankylosing Spondylitis Metrology Index, and across more stringent endpoints, including ASAS40, Bath Ankylosing Spondylitis Disease Activity Index 50% improvement, and Ankylosing Spondylitis Disease Activity Score inactive disease and major improvement (Table). In ED and LD subgroups, response rates at W16 among GLM-treated pts were generally consistent through 1y; pts crossing over to GLM at W16 showed response at W52 consistent with pts who started GLM at W0. At W16, improvements in enthesitis score were similar for ED pts (mean change: -2.9, GLM; 0.1, PBO) and LD pts (mean change: -2.5, GLM; 0.6, PBO); improvements were maintained at W52 for ED & LD pts. Treatment-emergent adverse events (AEs) and serious AEs through 1y were 46% and 3% for ED pts vs 61% and 2% for LD pts, respectively.

Table. Efficacy Outcomes

	ED				LD			
	Week 16		Week 52		Week 16		Week 52	
	PBO (n=25)	IV GLM (n=35)	PBO→IV GLM (n=25)	IV GLM (n=35)	PBO (n=28)	IV GLM (n=24)	PBO→IV GLM (n=28)	IV GLM (n=24)
ASAS 20	32%	71%	68%	71%	21%	67%	68%	63%
ASAS 40	12%	46%	56%	60%	4%	42%	57%	42%
BASDAI 50	12%	40%	64%	60%	7%	33%	57%	42%
ASDAS inactive disease (score <1.3)	4%	17%	44%	37%	0%	8%	14%	4%
ASDAS major improvement (decrease ≥2.0)	n=24 4%	57%	n=24 54%	51%	0%	n=23 48%	46%	n=23 30%
ASDAS clinically important improvement (decrease≥1.1)	n=24 29%	77%	n=24 75%	77%	18%	n=23 91%	61%	n=23 65%
Mean change from baseline (SD) in BASFI	n=23 -0.4 (2.0)	-2.3 (2.1)	n=23 -2.7 (2.7)	-2.8 (2.6)	n=27 -0.3 (1.8)	n=24 -2.2 (1.7)	n=27 -2.4 (2.2)	n=23 -2.3 (1.7)
Mean change from baseline (SD) in BASMI	n=23 -0.3 (0.7)	-0.4 (0.7)	n=23 -0.6 (0.7)	-0.3 (0.5)	n=27 0.01 (0.5)	n=21 -0.3 (0.6)	n=27 -0.4 (0.7)	n=20 -0.3 (0.7)
Mean change from baseline (SD) in enthesitis score	n=23 0.1 (3.6)	-2.9 (2.9)	n=23 -2.0 (4.4)	-3.2 (2.5)	n=27 -0.6 (3.4)	n=21 -2.5 (3.0)	n=27 -2.5 (3.1)	n=20 -3.5 (5.9)

ASAS 20, Assessment of SpondyloArthritis International Society 20% improvement; ASAS 40, Assessment of SpondyloArthritis International Society 40% improvement; ASDAS, Ankylosing Spondylitis Disease Activity Score; BASDAI 50, Bath Ankylosing Spondylitis Disease Activity Index 50% improvement; BASFI, Bath Ankylosing Spondylitis Functional Index; BASMI, Bath Ankylosing Spondylitis Metrology Index; ED, Early disease; IV GLM, Intravenous golimumab; LD, Late disease; PBO, Placebo; SD, standard deviation

Conclusion: While IV GLM provided clinically meaningful improvements in AS signs and symptoms in pts regardless of disease duration, response generally appeared numerically better in pts with ED than in pts with LD. This supports the principle of prompt diagnosis and early treatment.

References:

1. Deodhar A, et al, J Rheumatol 2018;45:341
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PANLAR2021-ABS-1093

SAFETY AND EFFICACY OF BIOLOGICS IN ELDERLY PATIENTS WITH RHEUMATOID ARTHRITIS IN A REAL WORLD STUDY: USE OF INTRAVENOUS GOLIMUMAB AND INFLIXIMAB IN ADULTS WITH RHEUMATOID ARTHRITIS ≥65 YEARS OF AGE

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Objectives: AWARE evaluated safety & efficacy of IV golimumab (GLM) & infliximab (IFX) in adults with RA.

Results: data in elderly AWARE patients (pts) are presented.

Methods: AWARE, a RWE-based study, enrolled pts initiating GLM/IFX. In a post hoc analysis, pts were grouped by age (<65/≥65/≥75 years [y]). Adverse events (AEs) were reported through Week (W) 52 or discontinuation (d/c) & at W104. The primary endpoint was proportion of pts with ≥1 infusion reaction through W52. Secondary endpoints: changes from baseline in Clinical Disease Activity Index (CDAI) scores at Months 6&12 in bionaïve pts, including IFX dose escalation pts.

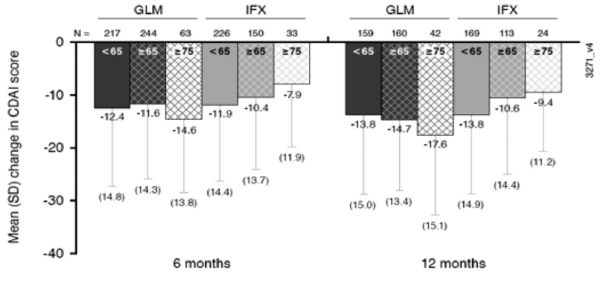
Results: Of 1270 enrolled pts (685 GLM; 585 IFX), 1047 (82%) were female; mean age: 60y (57% <65y, 43% ≥65y, 7% ≥75y). Mean disease durations: 9y (GLM), 7y (IFX). Comorbidities were generally similar between GLM & IFX but more common in pts ≥65y. Through W52, 66% GLM & 62% IFX pts discontinued the study. D/c due to lack of efficacy was generally similar across age groups within treatment groups, but somewhat higher for GLM (29%) vs IFX (19%). For both treatments, AEs & d/c due to AE through W52 were more common in pts ≥65y (Table). Consistent with general trends,[1] serious AEs (SAEs) & serious infections increased with age for GLM & IFX; but increases were more notable in IFX vs GLM pts ≥65y. Serious infection incidence was highest in pts ≥75y for both treatments. No increase in opportunistic infections, including Varicella, was seen in pts ≥65 vs <65y. Infusion reactions were more common in pts <65y (both treatments), & more prevalent in IFX- than GLM-treated pts within age groups through W52 (Table). Generally similar safety results were seen between W52 & W104 for each treatment group. Both GLM & IFX in bionaïve pts showed improvement in CDAI scores across age groups and was maintained over time (Figure).

Table. % of pts with ≥1 AE through W52 DBL

	IV GLM			IFX		
	<65 yrs	≥65 yrs	≥75 yrs	<65 yrs	≥65 yrs	≥75 yrs
Patients, n	351	334	91	370	215	46
Discontinued due to AE	8.5%	12.6%	16.5%	15.1%	17.7%	21.7%
AE	52.4%	58.4%	57.1%	63.5%	66.5%	71.7%
Most common AEs (≥5% of pts in either treatment group)						
Nausea	3.7%	3.3%	3.3%	8.4%	6.0%	2.2%
Worsening of RA	5.4%	4.5%	3.3%	7.3%	7.0%	4.3%
Upper respiratory tract infection	5.7%	5.1%	4.4%	6.2%	5.6%	2.2%
Pruritis	1.4%	2.4%	3.3%	6.8%	2.8%	2.2%
Sinusitis	7.1%	3.3%	0%	3.8%	3.7%	2.2%
Urinary tract infection	4.8%	5.1%	5.5%	4.3%	5.1%	6.5%
SAE	7.7%	16.8%	20.9%	9.7%	18.6%	26.1%
Infection	30.5%	27.2%	27.5%	32.2%	28.8%	32.6%
Serious infection	3.7%	6.3%	7.7%	3.5%	7.9%	15.2%
Neoplasms benign, malignant and unspecified	0.6%	2.7%	1.1%	0.8%	2.3%	6.5%
Latent tuberculosis	0.3%	0%	0	0.3%	0%	0%
Opportunistic infection	1.4%	1.8%	4.4%	1.9%	1.4%	4.3%
Infusion reaction	5.1%	2.7%	1.1%	17.3%	8.8%	8.7%
Death	0.3%	2.4%	2.2%	0%	2.3%	6.5%

AE, adverse event; DBL, database lock; GLM, golimumab; IFX, infliximab; IV, intravenous; RA, rheumatoid arthritis; SAE, serious adverse event; yrs. years

Figure. Mean (SD) change from baseline CDAI score at 6 months and 12 months (observed data) for bionaive population[a]



[a] Efficacy conducted for bionaive population including pts who had IFX dose escalation

Conclusion: Elderly RA pts receiving IV GLM/IFX showed similar safety & efficacy as reported in phase 3 trials.[2,3] Higher rates of AEs, discontinuations due to AE and SAEs (mainly serious infections) observed in pts ≥65y are in line with increased safety events seen in elderly vs younger individuals in the general population. Rates of AEs, SAEs and infusion reactions were higher for IFX vs GLM. Infusion reactions were more common in pts <65 vs ≥65y for GLM & IFX, but more prevalent with IFX.

References:

1. Castle SC. Clin Infect Dis 2000;31:578–85
2. Lipsky PE, et al. N Engl J Med 2000;343:1594-602
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PANLAR2021-ABS-1345

EFFICACY OF BARICITINIB IN PATIENTS WITH MODERATE-TO-SEVERE RHEUMATOID ARTHRITIS WITH 3 YEARS OF TREATMENT: RESULTS FROM A LONG-TERM STUDY

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Objectives: Baricitinib (BARI) is an oral, selective, reversible Janus kinase 1/2 inhibitor approved for the treatment of adults with active rheumatoid arthritis (RA). To evaluate the long-term efficacy of once-daily BARI 4 mg in methotrexate (MTX)-naïve or inadequately responding (IR) patients with active RA.

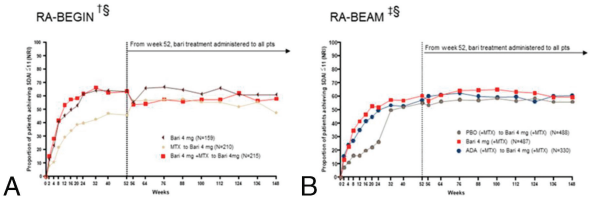
Methods: Analyses were performed on post hoc data from Phase 3 studies RA-BEGIN(MTX-naïve) and RA-BEAM(MTXIR) for 52 weeks, and from the long-term extension (LTE) study (RA-BEYOND) for an additional 96 weeks (148 weeks total).

At week 52, MTX-naïve patients initially treated with MTX monotherapy, BARI 4 mg monotherapy, or BARI 4 mg + MTX(RABEGIN) switched to open-label BARI 4 mg monotherapy in the LTE. At week 52, MTX-IR patients initially treated with BARI 4 mg or adalimumab (ADA) + MTX in RA-BEAM were switched to open-label BARI4mg(+MTX) treatment in the LTE. Placebo (+MTX)-treated patients switched to open-label BARI 4 mg(+MTX) at week 24. The analyses of efficacy (SDAI) and physical function (HAQ-DI) were conducted on all patients randomized into RA-BEGIN and RA-BEAM receiving ≥1 dose of study drug (mITT population). The proportion of patients reaching low disease activity (LDA), measured by SDAI≤11, was evaluated, along with change from baseline in HAQ-DI. The non-responder imputation (NRI) method was used for the categorical analysis.

Results: By week 24 in RA-BEGIN(N = 584), 62%of BARI 4 mg or BARI 4 mg + MTX-treated patients achieved SDAI LDA compared to 40% of MTX group; response rates for BARI groups were maintained through week148 (Fig 1A).

By week 24 in RA-BEAM (N = 1305), 52% of BARI 4 mg(+MTX)-treated, and 50% of ADA(+MTX)-treated patients achieved SDAI LDA compared to 26% of PBO(+MTX)-treated patients. BARI 4 mg and ADA week 24 response rates were maintained through week148 even after ADA-to-BARI 4 mg switch at week 52 (Fig 1B). Improvement and maintenance of physical function measured by HAQ-DI were demonstrated. The overall discontinuation rate (DR) across treatment groups from RA-BEGIN (19.5%) and RA-BEAM (14.2%) have been published. In LTE, BARI-treated DR was13.7%for RABEGIN (1.1%due to lack of efficacy, 6.4%due to safety) and 12.6%for RA-BEAM (1.8%due to lack of efficacy, 5.9%due to safety).

Figure 1. Proportion of patients achieving SDAI ≤11 in the NRI analysis



†In RA-BEGIN, rescue to Bari 4 mg + MTX was offered at week 24.
‡In RA-BEAM, rescue to Bari 4 mg (+ MTX) was offered at week 16. At week 24, all PBO + MTX patients were switched to Bari 4 mg + MTX.
§Upon entering RA-BEYOND at week 52, MTX and ADA patients were switched to Bari 4 mg.

Conclusion: Long-term treatment with BARI 4 mg demonstrated the maintenance of clinically relevant outcomes for up to 3 years. Low discontinuation rates during the LTE indicate that BARI 4 mg treatment was well tolerated.

PANLAR2021-ABS-1098

EFFICACY AND SAFETY OF GUSELKUMAB, A MONOCLONAL ANTIBODY SPECIFIC TO THE P19-SUBUNIT OF INTERLEUKIN-23, THROUGH WEEK 52 OF A PHASE 3, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY CONDUCTED IN BIOLOGIC-NAÏVE PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS

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Objectives: Guselkumab (GUS), an anti-interleukin-23p19 subunit monoclonal antibody, is approved to treat psoriasis. Through Week (W) 24 of the phase 3, double-blind, placebo (PBO)-controlled trial in biologic-naïve patients (pts) with active psoriatic arthritis (PsA) (DISCOVER-2), GUS every 4/8 weeks (Q4W/Q8W) demonstrated efficacy for joint & skin symptoms and inhibition of structural damage progression (Q4W) and was well tolerated. This study assessed GUS efficacy and safety through W52.

Methods: Biologic-naïve adults with active PsA (≥5 swollen+ ≥ 5 tender joints; CRP ≥0.6 mg/dL) were randomized (1:1:1) to GUS 100 mg Q4W; GUS 100 mg at W0, W4, Q8W; or PBO. At W24, PBO pts switched to GUS 100 mg Q4W (PBO X Q4W). ACR response rates at W52, based on non responder imputation (NRI) for missing data and as observed in pts who continued study agent at W24, are shown. Observed data for additional endpoints, including PsA-modified van der Heijde Sharp (vdH-S) scores derived from blinded radiographic images collected at W0, W24, W52 (or at d/c) and scored in a new Read Campaign, are shown.

Results: 712/739 (96.3%) randomized & treated pts continued study agent at W24; 689/739 (93.2%) completed W52. NRI ACR20 response rates continued to increase after W24, and at W52 were 70.6% for GUS Q4W and 74.6% for GUS Q8W (Fig1A). Similar response patterns were observed for the more stringent ACR50/70 criteria (Fig1C,E). Observed ACR (Fig 1B, D, F), IGA, PASI & MDA/VLDA responses; dactylitis & enthesitis resolution; and mean improvements in HAQ-DI and SF-36 PCS/MCS scores were also sustained through W52 in pts receiving Q4W & Q8W; W52 data for PBO X Q4W pts were generally consistent with other GUS-treated pts (Table1). Changes in vdH-S scores were similar for W24-52 (0.62) and W0-24 (0.46) for Q4W; less radiographic progression occurred from W24-52 v W0-24 for Q8W (0.23 v 0.73) & PBO X Q4W (0.25 v 1.00). In 731 GUS-treated pts, 4.2% had SAEs; 1.2% had serious infections; no pt died; and no pt had IBD, opportunistic infections or active TB, or anaphylactic or serum sickness-like reactions.

Table 1. Observed Efficacy[1]	GUS	Q4W	GUS	Q8W	PBO (W0-24) X	GUS Q4W (W24-52)
Data are % unless otherwise stated	W24	W52	W24	W52	W24	W52
Dactylitis at W0, n	116	111	107	105	95	93
Resolution	68.1	81.1	60.7	81.9	41.1	78.5
Enthesitis at W0, n	165	160	151	148	172	168
Resolution	45.5	60.0	57.6	65.5	32.6	67.3
≥3% BSA psoriasis, IGA ≥2 at W0, n	176	173	172	170	176	172
IGA 0/1 + ≥2-grade decrease	71.0	84.4	72.1	77.1	19.9	84.3
PASI75	81.8	91.9	80.8	88.8	23.3	88.4
PASI90	63.6	81.5	70.3	77.1	10.2	76.7
PASI100	46.6	61.3	46.5	54.7	2.8	55.2
HAQ-DI, n	234	229	238	234	237	230
Mean change	-0.4	-0.5	-0.4	-0.5	-0.2	-0.4
SF-36 scores, n (mean change)	234	229	238	234	237	230
Physical Component - PCS	7.2	9.0	7.8	9.5	3.8	8.1
Mental Component - MCS	4.1	4.1	4.5	4.5	2.2	4.3
MDA/VLDA, n	234	228	238	234	238	231
MDA	19.7	36.8	26.5	32.9	6.3	31.6
VLDA	5.1	12.2[2]	4.6[3]	17.1	1.3	6.9

[1]Randomized pts still on study agent at W24; [2]N=229; [3]N=237

BSA, body surface area; GUS, guselkumab; HAQ-DI, health assessment questionnaire disability index; IGA, investigator global assessment; MDA, minimal disease activity; NRI, nonresponder imputation; PASI, Psoriasis Area and Severity Index; PBO, placebo; Q4W, every 4 weeks; Q8W, every 8 weeks; SF-36, short form-36; VLDA, very low disease activity; W, week

Conclusion: In biologic-naïve pts with active PsA, GUS elicited sustained improvements in joint & skin symptoms; inhibition of radiographic progression & improvements in physical function, quality of life & composite indices through W52. GUS safety in PsA was similar at W24[1] & W52 and consistent with GUS safety in psoriasis.

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PANLAR2021-ABS-1355

RADIOGRAPHIC PROGRESSION OF STRUCTURAL JOINT DAMAGE OVER 5 YEARS OF BARICITINIB TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS: RESULTS FROM RA-BEYOND

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Objectives: Baricitinib (BARI) is an oral, reversible, selective Janus kinase 1 and 2 inhibitor. The aim was to evaluate radiographic progression (RP) of structural joint damage in RA patients (pts) over 5 yr of BARI treatment.

Methods: Pts completing RA-BEGIN (DMARD-naïve)/RA-BUILD (csDMARD-IR)/RA-BEAM (MTX-IR) enrolled in RA-BEYOND were included. Patients receiving blinded BARI at end of trials remained on that dose (2/4 mg once daily) in RA-BEYOND. At 52 weeks, DMARD-naïve pts receiving methotrexate (MTX)/combination therapy (BARI 4 mg + MTX) were switched to BARI 4 mg monotherapy; MTX-IR pts receiving adalimumab (ADA) were switched to BARI 4 mg on background MTX. At 24 weeks, csDMARD-IR pts receiving PBO were switched to BARI 4 mg on background csDMARD. Analysis population: pts with baseline and at least 1 radiograph after 2 years. RP of structural joint damage (Years 3-5) was determined by changes from baseline in van der Heijde-modified Total Sharp Score (ΔmTSS), erosion score, and joint space narrowing. Proportion of pts with no progression was assessed on change from baseline mTSS (ΔmTSS) from originating study using thresholds of 0.5/smallest detectable change (SDC). Mixed-model repeated-measures and logistic regression models were used to analyze continuous and categorical variables, respectively; linear extrapolation was used for imputation of missing data (maximum of 1 year).

Results: Overall 82.6% (2125/2573) of pts entered RA-BEYOND. Among DMARD-naïve pts, those on initial BARI monotherapy/in combination with MTX had significantly slower RP (ΔmTSS) than those on initial MTX at years 3,4,5 ($p \leq 0.05$) and significantly fewer erosions at these timepoints ($p \leq 0.05$). A greater proportion of pts who received initial BARI and BARI-MTX had no RP compared to initial MTX monotherapy using thresholds of 0.5 ($p \leq 0.05$). Among MTX-IR pts, those on initial BARI had slower RP than PBO and results were comparable to those on initial ADA treatment at years 3,4,5. A greater proportion of pts who received initial BARI therapy had no RP compared to initial PBO using thresholds of SDC ($p \leq 0.05$). Among csDMARD-IR pts, though differences between groups were small, pts on initial BARI 4 mg had slowest RP compared to initial PBO and initial BARI 2 mg. ≥74% of structure data are based on observed data.

Conclusion: Treatment with once-daily oral BARI maintained low RP rates for up to 5 years in different patient populations with RA. Presented: ACR/ARP2020.

PANLAR2021-ABS-1375

EXPECTATIONS AND EXPERIENCES TOWARDS AN EDUCATIONAL PROGRAM IN PATIENTS WITH RHEUMATOID ARTHRITIS. A QUALITATIVE STUDY

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Objectives: Rheumatoid arthritis (RA) is a high-cost disease, usually diagnosed at a productive age in life. RA brings significant changes in a patients'

life. RA requires from the patient self-management and compliance to different pharmacological and non-pharmacological new activities. One of the barriers to non-compliance could be the lack of knowledge about the disease or lack of communication with the health care providers (1). Health care programs have demonstrated to be a valuable tool to break those barriers. To obtain positive results in an educational program, we need to know the patient's attitudes and expectations before and during the conduct of the educational program. The objective of this study is to explore patient´s expectations and experiences in an educational program.

Methods: We conducted a qualitative study comprising focus groups and individual interviews. We included 10 participants. We created and maintained a codebook to analyse the data. Interviews were transcribed, and the results were grouped into different categories.

Results: Key points before the educational program started were reported by our patients. The onset of this disease in their lives in an unexpected way caused many changes in these patients' lives. Also, they have doubts and uncertainties generated from the diagnosis and their everyday life activities. In the second category, the expectations and motivations of the participants towards the educational program are highlighted. They want to be future educators and guides to support other patients with the same diagnosis. After attending the program, patients reported the main benefit: acquiring reliable information that can be transferred to their particular realities and new positive changes in their nutrition, physical activities, and other healthy behaviors.

Conclusion: The expectations and perceptions of the patients are of great importance. Qualitative research is helpful to understand the subjectiveness of patients with RA. Educational programs are an excellent strategy for patients because we are giving them an active voice in the management of rheumatoid arthritis.

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PANLAR2021-ABS-1133

AMIGOS DE FIBRO (FIBRO FRIENDS): DEVELOPMENT OF A MULTIDISCIPLINARY HEALTH PROMOTION PROGRAM FOR FIBROMYALGIA IN BRAZIL

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Objectives: To develop a multidisciplinary educational program for health promotion to improve the quality of life of individuals with fibromyalgia.

Methods: A qualitative study was carried out using the focus group technique in a Primary Health Care Unit, in São Paulo, Brazil. The sample included ten primary health care professionals and twelve individuals with fibromyalgia. Guiding questions that addressed their demands and needs were used to conduct the group discussions. Data were analyzed using the content analysis technique proposed by Bardin, specifically the thematic content analysis.

Results: Amigos de Fibro (Fibro Friends) program should be conducted through lectures, dynamics and conversation circles. The educational program must include 15 meetings with weekly frequency. The meetings are: 1st to present the program and socialization activities. 2nd: A physician presents the concepts of fibromyalgia. 3rd: A nurse informs about practices and environments that favor self-care. 4th: A social worker shows the importance of support. 5th: A physiotherapist shows the main body practices and physical activity. 6th: A nutritionist presents an adequate and healthy diet. 7: A psychologist shows mental health practices. 8th: A pharmacist informs about medicines. 9, 11 and 13: participants perform activities at home. 10: A naturologist presents integrative and complementary practices. 12th: An occupational therapist encourages methods to save energy. Day 14: A sleep therapist helps on the quality of sleep. 15: closing activity.

Conclusion: This program is proposed to give a multidisciplinary educational information to individuals with fibromyalgia in a primary health care system.

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PANLAR2021-ABS-1166

IMPACT OF COVID-19 IN THE PRACTICE OF RHEUMATOLOGISTS

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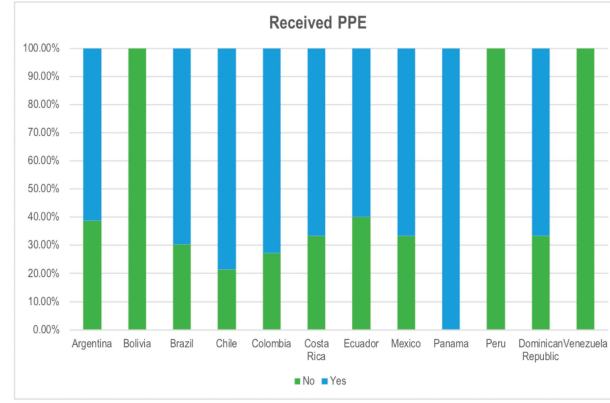
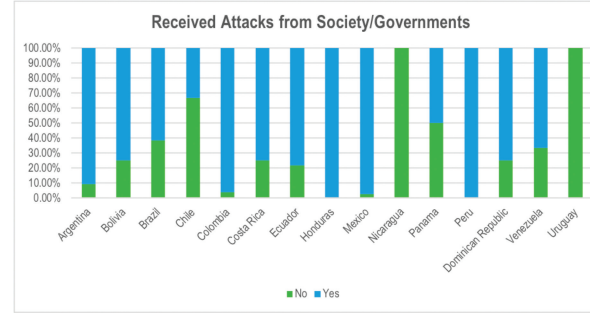
Objectives: The COVID-19 pandemic has led to unexpected changes in rheumatology[1], forcing physicians to implement telemedicine[2] in order to prevent contagion, due to a limited access to personal protective equipment and the increased risk of rheumatology patients of contracting COVID-19 due to their underlying diseases or immunosuppressive treatment[3]. The purpose of the study was to determine the impact of COVID-19 in the practice of rheumatologists.

Methods: Cross-sectional study done using online surveys. We included demographics, COVID-19 infection and factors related to the care of patients with COVID-19. Participants completed the PHQ-9 questionnaire, subjective happiness scale and Maslach Burnout inventory. Data were analyzed using SPSS v22.

Results: 297 rheumatologists were included, 62% women, 65% married, mainly of mixed race (52.9%). The countries with higher responses were Argentina 28.3%, Brazil 26.3%, Mexico 12.8%, Colombia 9.1% and Ecuador 7.7%. Of the entire group, 10.1% had already contracted COVID-19. Of the 30 infected, 53.3% had headache, 63.3% fatigue, 43.3% anosmia, 43.4% myalgia, 40% odynophagia, 33.3% ageusia, 30% cough, 30% chills, 30% arthralgia,





26.6% diarrhea, 23.3% fever, 16.6% abdominal pain, 13.3% dyspnea, 13.3% nausea/vomiting, and 6.7% skin lesions. Complications occurred in 20% of them. The mean duration of quarantine in the 15 Latin American countries was 40 ± 9 weeks. 48.5% had cared for patients with a presumed diagnosis of COVID-19 and only 32% had received personal protective equipment (Figure 1). The majority (77.4%) responded that doctors and health personnel in their country had received mistreatment by society and/or governments (figure 2). 83.8% have practiced telemedicine during the pandemic. Those who were in the front lines had similar scores as those who were not in the first line in terms of happiness scale ($p > 0.05$), emotional exhaustion score ($p > 0.05$), personal accomplishment ($p > 0.05$), depersonalization ($p > 0.05$) and practice satisfaction ($p > 0.05$). However, they did have higher PHQ-9 scores ($p = 0.013$). Those who were infected with COVID-19 had higher means in emotional exhaustion ($p = 0.028$) and depersonalization ($p = 0.008$) than those who were not infected.

Conclusion: The pandemic opened the doors to the use of telemedicine and has shown that this could be an alternative for the follow-up of stable patients, in remission or those who have difficulties to move around, and in those who do not need a procedure to be performed.

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PANLAR2021-ABS-1167

SUBJECTIVE HAPPINESS AMONG RHEUMATOLOGIST PRACTICING IN LATIN AMERICA

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Objectives: Rheumatologists are among the happiest doctors outside of work, as many other physicians are, however they are among the less happy at work due to the increasing number of bureaucratic tasks they have to complete at work1. The purpose of this study is to determine the perception of happiness by rheumatologists in Latin America and the factors associated with it.

Methods: Cross-sectional study based on a survey completed using the Google Forms platform that was sent to the members of the Latin America national rheumatology associations. Subjective happiness was assessed with the subjective happiness 4-item scale designed to measure subjective happiness3. The statistical analysis was carried out using the program SPSS v.22.

Results: 297 rheumatologists were included, 62% women. The mean age was 47.9 ± 11.7 years. The majority combined public and private practice (42.4%) and worked with adults (82.8%). The mean subjective happiness score was 5.5 ± 1.1, with no difference between sexes. The mean happiness was higher in those who were married ($p = 0.033$), practiced teaching ($p = 0.010$), had more than 4 weeks of vacation per year ($p = 0.007$) and earned more than $ 25 K per year ($p = 0.003$). There was no difference by workplace, type of clinical practice, research work, clinical trials, or administrative activities. Those with comorbidities were less happy ($p = 0.032$), as were those with anxiety ($p = 0.000$) and pre-established depression ($p = 0.000$). Likewise, the mean happiness was lower in those who had low self-esteem ($p = 0.000$), took SSRIs/SNRIs ($p = 0.018$) and who had suicidal thoughts ($p = 0.000$). The happiness score was correlated with age ($r = 0.139$, $p = 0.017$), years practicing rheumatology ($r = 0.154$, $p = 0.008$), emotional exhaustion ($r = -0.537$, $p = 0.000$), personal accomplishment ($r = 0.322$, $p = 0.000$), depersonalization ($r = -0.297$, $p = 0.000$), PHQ-9 ($r = -0.640$, $p = 0.000$) and practice satisfaction ($r = 0.445$, $p = 0.000$). In the multivariate analysis, the variables that influenced happiness were emotional exhaustion ($B = -0.029$, $p = 0.000$), personal accomplishment ($B = 0.016$, $p = 0.003$), practice satisfaction ($B = 0.094$, $p = 0.043$) and self-esteem ($B = 0.373$, $p = 0.000$).

Conclusion: Most of the physicians that participated in the study, regardless of their gender, reported to be happy with their careers. According to the results those involved in academics, married, who had at least 4 weeks of vacation and earned over 25 k had a stronger perception of happiness than those with underlying diseases.

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PANLAR2021-ABS-1197

COMPARISON BETWEEN THE INTERVENTION WITH BACK SCHOOL AND POSTURAL REEDUCATION IN THE POSTURE OF ELDERLY PEOPLE WITH LOW BACK PAIN

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Objectives: To verify the effectiveness of Back School in improving the sitting and standing posture of elderly people with low back pain.

Methods: This is a clinical trial following the Consolidated Standards of Reporting Trials (CONSORT) with a sample composed of 20 elderly people from the city of Maringá-PR, Brazil with a diagnosis of low back pain. The orthostatic posture (frontal, sagittal and transversal view) and sitting (maintaining the physiological curvature, sitting close to the table, maintaining the neutral position of the pelvis and sitting with the legs apart) were evaluated. The sample was randomly divided into two groups. The Back School group (intervention group), whose subjects attended a seminal meeting and were submitted to an activity program composed of conventional exercises, interspersed with theoretical/practical classes. The Postural Reeducation group (control group) consisted of elderly people who performed only therapeutic exercises, including stretching and muscle strengthening globally. Both groups held 10 sessions. The Student's t test was applied with a significance level of 5% ($p < 0.05$).

Results: There was an improvement in scores in both groups after the intervention. The Back School group improve sitting (<0.0005) and orthostatic (<0.0005) posture. In the Postural Reeducation group, both postures improved, however, there was a significant difference in orthostatic posture (<0.0004).

Conclusion: It is concluded that both interventions are capable of promoting improvements in the symptoms of elderly subjects with low back pain, although there is a tendency for better evolution of the intervention with the Back School program.

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PANLAR2021-ABS-1106

UNDERGRADUATE MEDICAL STUDENTS PARTICIPATING AS INVESTIGATORS IN A RHEUMATOLOGIC LONGITUDINAL COHORT DURING THE COVID-19 PANDEMIC: IMPACT ON STUDENTS' DAILY ROUTINE

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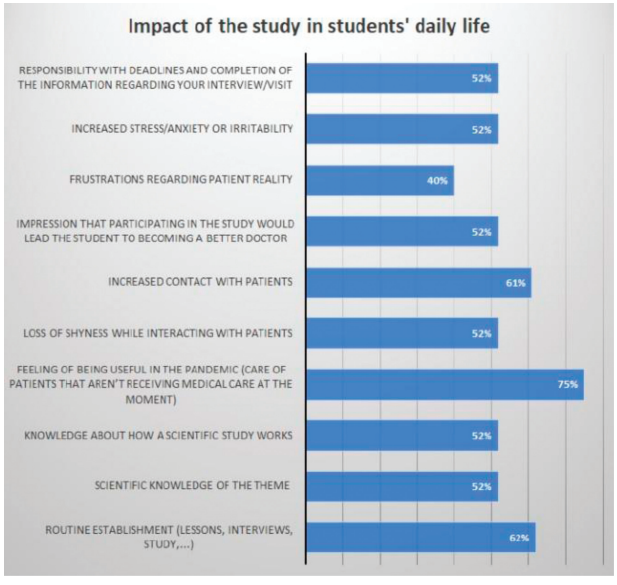
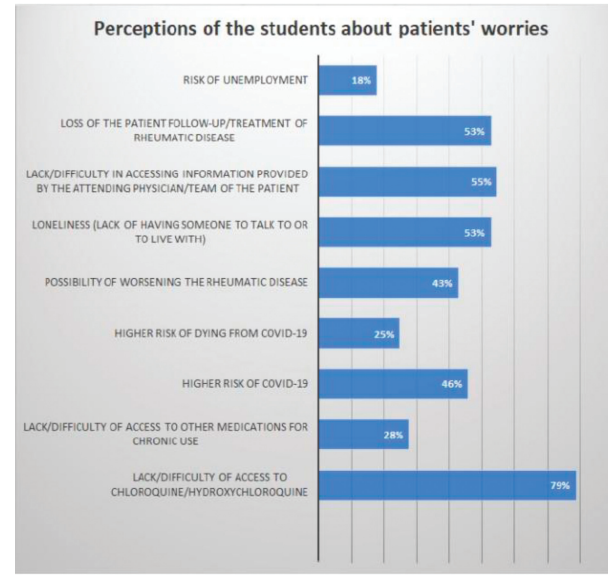
Objectives: The engagement of undergraduate medical students (MS) in clinical research may lead to improvement in scientific method critical analysis, better performance as young physicians, awareness of innovation, and the development of leadership skills and teamwork perspectives (1). This study evaluated changings in daily routine and the awareness of patients' realities reported by MS participating on a research project involving rheumatic patients in Brazil during the COVID-19 pandemic.

Methods: A secondary analysis of a web-based cross-sectional survey (2) including MS participating of Mário Pinotti II study (MPII) (3) was performed.



Demographic characterization and the description of the MS impressions of the impact of participating of MPII are reported.

Results: A total of 228 (58%) MS involved in MPII responded to the survey: 151 (66%) were women with (Mean(SD)) 22.8 (2.8) years of age, most were studying in public (N = 135 (59%)) medical schools, from 10 Brazilian states. Figures 1 and 2 summarize MS' reports on the impact of participating of MPII on their daily routine and increased awareness of patient's realities.



Conclusion: MS participating on the MPII study reported a better understanding of rheumatic patients' fears and uncertainties during the COVID-19 pandemic, including hydroxychloroquine shortage, lack of medical appointments and an unmet need related to more adequate information addressed to the rheumatic diseases. Furthermore, the close interaction among rheumatic patients, faculty, rheumatologists, and other MS have provided a significant improvement in their feelings of usefulness during the pandemic and could contribute to their future professional activities.

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PANLAR2021-ABS-1410

THE ROLE OF AN EDUCATIONAL PROGRAM IN THE QUALITY OF LIFE OF PATIENTS WITH RHEUMATOID ARTHRITIS

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Objectives: Rheumatoid arthritis (RA) is a chronic inflammatory condition which impacts on the joints and connective tissues and affects everyday life activities. It is translated into pain, swelling, limitation of motion resulting in a

direct negative consequence on the quality of life (1). On the other hand, educational programs for patients with chronic conditions such as RA have demonstrated to be beneficial for wellbeing and self-care. They also allow patients to learn from their peers and address individual educational needs (2). Our objective was to describe the effect of an educational program on the quality of life in patients with rheumatoid arthritis

Methods: We used the RA-QoL instrument validated in Spanish at the beginning of the educational program and the end of the first semester. Clinical and sociodemographic characteristics were recorded. We assessed the mean differences at baseline and six months. We performed a bivariate regarding sex, age, education and QoL-RA score.

Results: In total 332 participants joined our educational program. The median age was 64 years IQR (54-66), 93% of patients were female. Regarding the educational level, 62% had completed primary or secondary school. At baseline, the (RA-QoL) mean score was 44 ± 27. The higher scores in the scale were the domains regarding family support and interaction. At the 6-month follow-up, there was an increase in the mean score RA-QoL score of 4 points in more than half of our participants. We did not find any relationship between quality-of-life score and sex, age or education level.

Conclusion: The RA-QoL instrument is a valuable tool in assessing the quality of life in patients with RA in the Colombian context. Our educational program has been effective in improving the quality of life of patients with rheumatoid arthritis.

However, this is a preliminary analysis, and we need further follow- up to confirm our results.

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PANLAR2021-ABS-1381

SOCIAL LISTENING: FACTUAL VS. MISINFORMATION YOUTUBE SPANISH-LANGUAGE RHEUMATOID ARTHRITIS VIDEOS

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Objectives: Misinformation is a real threat, especially in social networks. Many videos on how to "cure" RA circulate in platforms such as YouTube. To further investigate why these videos are appealing to the Hispanic community, we conducted an analysis of the emotions or sentiments behind the words being exchanged in the comments sections of these posts.

Methods: This analysis will calculate the sentiments from what our experts defined as videos with factual information versus videos with misinformation.[1]

Results: The videos with misinformation have about two times as many views as videos with factual information. Furthermore, all top three factual videos present RA in a more complicated way using more technical and high-level language than the misinformation videos.

Conclusions: While sentiments and phrases may not tell the entire story of the information being portrayed on social media to the Hispanic community living with RA, slight differences across videos may tell us why some videos are viewed more than others or have higher interactions. It is noteworthy that the videos with misinformation have about two times as many views as videos with factual information.

Through better understanding of what these videos talk about, and analysis on sentiment and common phrases in the comments section we have seen that:

-Spanish-language RA misinformation videos focus on a simple explanation with a promise for a cure.

-Spanish-language RA factual videos focus on the technical explanation of the disease which induce emotions of negativity and fear.

-Natural treatments are rampant not only within the actual misinformation videos and the comments section but throughout the comments section of the factual videos.

-By observing that the factual videos were the only ones to have the word 'rheumatoid arthritis' as a common phrase in the comments section, it suggests that there may be evidence that the content of the video is successful in educating part of the audience in a productive way.

Misinformation videos and users disseminating misinformation utilize novelty to their advantage. With no real accountability, authors are able to create any type of false narrative, users are left to interpret information as they wish, and the cycle of misinformation persists.

Reference:

1. Saif M. Mohammad and Peter Turney. (2013), "Crowdsourcing a Word-Emotion Association Lexicon." Computational Intelligence, 29(3): 436-465

PANLAR2021-ABS-1125

BURNOUT IN RHEUMATOLOGISTS IN LATIN AMERICA

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Objectives: Rheumatology is considered a low-risk specialty, but studies have shown a prevalence of burnout between 42 and 51%[1,2]. The purpose of this study was to determine the prevalence of burnout in rheumatologists in Latin America and the factors associated with it.

Methods: Cross-sectional study based on a survey completed through Google Forms platform that was sent to members of the Latin America national rheumatology associations. Burnout was assessed with the Maslach Burnout Inventory. Other variables studied were such as demographics, working conditions, satisfaction, comorbidities, depression using PHQ-9. Data were analyzed using the statistical program SPSS v.22.

Results: 97 rheumatologists from 15 countries were included, mainly Argentina (28.3%), Brazil (26.3%) and Mexico (12.8%). The majority were women 62%, 42.4% worked in public hospitals with an average of 40.1 ± 14.2 hours per week. 31.3% did research, 13.1% clinical trials, 56.6% teaching, and 42.8% administrative work. 36% received an annual income less than 25 K. 56.6% had burnout in at least 1 dimension. According to the dimensions, 35.7% had burnout in emotional exhaustion, 25.6% in personal accomplishment and 26.6% in depersonalization. 32.3% had burnout in only 1 dimension, 17.2% in two and 7.1% in all three dimensions. Only 20.2% thought they had burnout, 9.1% were currently with professional help and 15.8% had sought help in the past. 72.1% said they were willing to participate in a program to reduce burnout. The rheumatologists with burnout were younger than those without burnout (46.5 vs 49.9 years, $p = 0.015$), mentioned more frequently that they would like to decrease the number of working hours (56.5% vs 36.4%, $p = 0.002$) and had lower practice satisfaction (5.2 vs 6.2, $p < 0.001$) and income satisfaction (3.4 vs 4.6, $p < 0.001$). In the burnout group, there was a higher percentage with an income less than $ 25 K/year (45.7% vs 25.4%, $p = 0.008$), presence of comorbidities (53.6% vs 40.3%, $p = 0.023$), anxiety (11.9 % vs. 2.3%, $p = 0.002$), use of SSRIs/SNRIs (19% vs 8.5%, $p = 0.011$), suicidal thoughts (13.6% vs 1.6%, $p < 0.001$) and low self-esteem (12.5% vs 3.1%, $p < 0.001$).

Conclusion: Burnout affects 57% rheumatologists in Latin America and was associated to younger age, long working hours, low satisfaction, less happiness, higher PHQ-9, suicidal thoughts, anxiety, low income, presence of comorbidities and low self-esteem. Most of the rheumatologists were willing to participate in programs to reduce burnout.

Reference:

1. Martin K. Medscape Rheumatologist Lifestyle, Happiness & Burnout Report 2020. 2. Tiwari V et al. Journal of Rheumatology 2020.

PANLAR2021-ABS-1157

AUTOIMMUNE LIVER DISEASE IN PATIENTS WITH PRIMARY SJÖGREN SYNDROME

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Objectives: To determine the prevalence of autoimmune liver disease in patients with pSS. To describe the clinical, serological and histological characteristics of the salivary glands of patients with and without hepatic involvement and to determine the differences between the groups. To determine the number of patients with elevated transaminases (AST/ALT) and alkaline phosphatase (ALP) in the absence of autoimmune liver disease.

Methods: We included the data of patients aged 18 years of age or older, with a diagnosis of pSS according to the 2002 European-American classification criteria; these patients gave informed consent to be included in the GESSAR (Sjögren Syndrome Study Group of the Argentine Society of Rheumatology) database.

Results: Of the 646 patients included 94.5% were women and the median age at diagnosis of pSS was 50 years (IQR 40-63) and of autoimmune liver disease 52 years (IQR 45-62). The prevalence was 5.26% (34/646), 3.1% (20/646) with a diagnosis of PBC, and 2.2% (14/646) with AIH. The prevalence of patients with elevated ALP, AST, and ALT in the absence of autoimmune liver disease was 5.9% (32/545), 5.22% (29/556), and 5.5% (30/548), respectively. The diagnosis of autoimmune liver disease preceded that of pSS in 30% (9/30) of the patients, with a median time of 4 years (IQR 2 - 13).

Parotid swelling was significantly more frequent in the group of patients with pSS with autoimmune liver disease, compared to the group without autoimmune liver disease (44.1% vs 26.8% p = 0.028). Xerovagin and rheumatoid factor (RF), were significantly less frequent in the group of patients with pSS with autoimmune liver disease, compared to the group without autoimmune liver disease (17.2% vs 40% p = 0.014 and 31% vs 53.2% p = 0.020), respectively.

In the bivariate analysis, patients with parotid swelling were more likely to have autoimmune liver disease OR 2.16 (95% CI 1.01 to 4.59) (p = 0.028), and patients with dry vagina and RF were less likely to have autoimmune liver disease OR 0.31 (95% IC 0.09 to 0.85 (p = 0.014) and OR 0.39 (95% IC 0.16 to 0.93 (p = 0.019), respectively. In the multivariate analysis, the only significant and independent association was with RF in 77% OR 0.23(95% CI 0.02 – 2.25) (p = 0.008).

Conclusion: The prevalence of autoimmune liver disease was 5.26% in patients with pSS. The presence of increased liver enzymes, parotid swelling and negative rheumatoid factor may suggest the diagnosis of autoimmune hepatitis.

PANLAR2021-ABS-1401

FACTORS ASSOCIATED WITH INTERSTITIAL LUNG DISEASE IN A MEXICAN POPULATION WITH SYSTEMIC SCLEROSIS

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Objectives: To describe the frequency and factors associated with Ssc related to ILD in a Mexican population.

Methods: 96 patients with Ssc that fulfilled the 2013 ACR/EULAR criteria (≥18 years) from a Mexican population recruited from 2014 to 2020 were examined. Patients with or without the presence of ILD were included. Demographic factors, clinical features, Ssc severity scale, comorbidities and pharmacologic treatments were examined for Ssc patients with and without ILD. The modified Charlson's comorbidity index (mCCI) was used to examine comorbidities. Chi-square, Student´s-t and U-Mann Whitney tests were performed by univariate analysis'; multivariate analysis adjusted for age and gender were done by logistic regression. Standard deviation and mean were obtained for age and BMI, median and quartiles were used for time at onset of SSC. Statistical tests were conducted at a 5% level of significance

Results: Of 96 patients with Ssc 97.9% were women and 11.5 % presented diffuse Ssc. The mean age [standard deviation (SD)] was 51.8 (14.2) years. The median time at onset of SSc (25-75th percentile) was 60 (45-113) months. A total of 32 (33.3%) patients had ILD; of them 87.5% exhibited NSIP and 75% showed limited pulmonary disease. In the univariate analysis Ssc-ILD patients were more likely to be smokers, have higher Rodnan and mCCI score, present capillaroscopy active pattern, digital tip ulceration, moderate-severe pulmonary hypertension and more cardiological involvement, exhibit more frequently hypothyroidism and anemia, increase demand of supplementary oxygen, show declination of forced vital capacity, also reveal a higher frequency of antinuclear antibodies nucleolar pattern and antitopoisomerase I antibodies, besides to use more frequently mycophenolate mofetil and rituximab. On the other hand, ILD-SSc patients were less likely to present calcinosis cutis and have lower frequency of antinuclear antibodies centromere pattern and anti-centromere antibodies. In multivariate analysis, smoking (OR 158.6, 95% CI 4.13–609, p = 0.006) remained significant in SSc-ILD patients.

Conclusion: This study suggests that the prevalence of ILD in Scc patients from Mexico is moderate. Those with ILD have more comorbidities that impact in a reduction of their quality of life. On the other hand, smoking remains a risk factor for ILD in Scc patients. However, these observations must be confirmed in larger and longitudinal studies with more rigorous methodology.

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PANLAR2021-ABS-1275

INTRAUTERINE DIAGNOSIS OF COMPLETE CONGENITAL HEART BLOCK IN A PREGNANT WOMAN WITH SJÖGREN'S SYNDROME

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Objectives: Sjogren's Syndrome (SS) is a systemic autoimmune disease characterized by a lymphocytic infiltrate of the exocrine glands, predominantly of the salivary and lacrimal glands. SS is classified as primary or secondary and affects predominantly middle-aged women. In this report, we present a case of intrauterine diagnosis of complete congenital heart block in a pregnant woman with SS.

Methods: Medical record review.

Results: 31 years old woman, in her third trimester of pregnancy. Previous history of Sjögren's Syndrome and Idiopathic Thrombocytopenic Purpura, both diagnosed four years befire, but without treatment or rheumatological follow-up. Patient reports photosensitivity, alopecia, xerostomia and xerophthalmia, arthralgia in hands, shoulders and knees, associated with morning stiffness of about one hour. She had two previous miscarriages, both in the first trimester. Exams demonstrate anti-SSA and anti-SSB reagents, ANA 1:640 (fine nuclear speckled pattern), and other autoimmunity markers non-reagents. Fetal echocardiography was performed at 35 weeks of gestation, which evidenced the presence of fetal bradycardia, with a heart rate of 45 beats a minute, compatible with complete heart block. Then, a cesarean delivery was performed at 38 weeks of gestation. At birth, the newborn was referred to the neonatal intensive care unit.

His exams revealed the presence of anti-SSA and anti-SSB. He needed a pacemaker implant on the fifth day of life.

Afterwards, he presented a good evolution and was discharged in the second week of life.

Conclusion: Complete congenital heart block is a rare entity, with an estimated prevalence of one case for every 15,000- 20,000 live births. Pathophysiology involves an autoimmunity-mediated process with a transplacental passage of anti-SSA and/or anti-SSB. It occurs in 2–5% of pregnancies with positive results for these antibodies and has a recurrence rate of up to 25% in subsequent pregnancies. These maternal autoantibodies can be identified in more than 85% of affected fetuses and neonates. This disease is associated with a high neonatal mortality rate. Thus, early diagnosis is extremely important.

References:

1. Baruteau, A-E., et al (2016). Congenital and childhood atrioventricular blocks: pathophysiology and contemporary management. European Journal of Pediatrics, 175 (9), 1235–1248.

2. Manolis, A.A., et al (2019). Congenital heart block: Pace earlier (Childhood) than later (Adulthood). Trends in Cardiovascular Medicine.
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PANLAR2021-ABS-1302

REFRACTORY PERICARDIAL EFFUSION IN PRIMARY SJÖGREN'S SYNDROME

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Objectives: Sjögren's syndrome is an autoimmune disease, whose etiology is variable, it has been attributed to genetic, infectious and environmental factors. Glandular involvement is characterized by dry symptoms; its extra glandular component has variable clinical manifestations[1]. Pericarditis is a rare manifestation, associated with effusions, constrictive pericarditis or cardiac tamponade[2]. We present the case of a patient with primary Sjögren's syndrome, recurrent pericardial effusion refractory to therapy.

Methods: Description of clinical case with primary Sjogren's syndrome, with pericardial effusion/

Results: 48-year-old woman admitted to the emergency department with deterioration of functional class. She had hypothyroidism, Sjogren's syndrome, with hematological and serous involvement. During the last two years, she had presented recurrent episodes of pleural effusion, requiring thoracostomies, pleurectomy and chemical pleurodesis.

She presented with recurrence of serositis; cardiac tamponade was managed with pericardiectomy. Autoimmune profile: negative ANAs and ENAs, C3 consumed, C4 normal, negative anti DNA, rheumatoid factor, anti CCP and ANCAs.

Salivary gland biopsy with a Focus Score > 2, rule out malignancy and infections (table).

The clinical picture is considered compatible with pericarditis associated with primary Sjögren's syndrome, the pericardial effusion recurred with new tamponade, she received pulses of methylprednisolone, colchicine and finally cyclophosphamide

Table 1. Immunoserological profile

Parameters	Values
Antinuclear antibodies	Negative
Anti-RO/anti-Sm/antiLa/anti-RNP/anti	Negative
Complement C3 C4	 61mg/dl (Normal: 88- 165) 28mg/dl (Normal: 14- 44)
cANCA/PR3 pANCA/MPO	Negative Negative
Rheumatoid factor	Negative
Anti CCP	Negative
lupus anticoagulant (LAC) Anticardiolipin antibodies (aCL) IgM and IgG, Antibeta2-glycoprotein I (aβ2GPI) IgM and IgG	Negative Negative Negative

Table 2: Admission laboratories

Laboratorio	08-12-20	11-12-20	16-12-20
Leukocites 10^3/ul	3400	3700	4100
Neutróphil10^3/ul	1900	2600	2400
Lynphocyte 10^3/ul	1300	600	1300
Hemoglobin (g/dl)	8.2	7.1	7.6
Hematocrit (v/v)	24	21	23.2
MCV (Fi)	89	89	88.9
Platelet 10^3/ul	386000	284000	363000
BUN md/dl	20		11
Creatinine md/dl	0.5		0.7

Conclusion: Pericarditis in this clinical context is an infrequent manifestation, usually responds to corticosteroids or immunomodulatory therapy, rarely presents cardiac tamponade or requires surgical management such as it happened with our patient.

References:

1. Parisis D, et all. Current State of Knowledge on Primary Sjögren's Syndrome, Autoimmune Exocrinopathy. J Clin Med. 2020
2. Assayag M, et all. Diagnosis of systemic inflammatory diseases among patients admitted for acute pericarditis with pericardial effusion. J Cardiovasc Med. 2017

PANLAR2021-ABS-1352

Ig G4 RELATED ORBITAL DISEASE AND CAVERNOUS CAROTID FISTULA

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Objectives: To report a patient with Ig G4 related orbital disease (IgG4-ROD) with cavernous carotid fistula as a complication, due to its extreme rarity presentation.

Methods: Case report

Results: 63-year-old man, with two months of disease characterized by right eye proptosis (RE), deep hyperemia, severely thickened episcleral vessels and bilateral decreased vision, RE predominance. Orbital MRI was performed, showing diffuse thickening RE extraocular muscles, diffuse hyperuptake contrast in RE peribulbar fat. Upon funduscopic examination, engorged arterial and venous vessels RE, bilateral diffuse peripheral pinpoint hemorrhages were observed. Due to the atypical presentation, brain angiography and panangiography were requested, reported as a right cavernous carotid fistula and probable bilateral arteriovenous malformation, respectively. In addition, he had elevated IgG4 levels and positive acute phase reactants. Treatment was started with systemic steroids and oral methotrexate and then subcutaneous for 4 months, with a favorable course but no resolution of the clinical signs. Treatment with rituximab 1 gr was started, and while patient was awaiting appointment to a higher resolution neurosurgery center, unfortunately she died of COVID-19.

Conclusion: Ig G4-related disease is a heterogeneous fibroinflammatory entity characterized by lymphoplasmacytic infiltrate with elevated serum IgG4 levels. The most common ocular involvement is orbital inflammatory disease (IgG4ROD) characterized by extraocular orbital soft tissue infiltration.

This patient stands out for cavernous carotid fistula as a complication very rarely described in the literature, which affected his clinical presentation, response to treatment, and led to the need for surgical treatment.

PANLAR2021-ABS-1429

THE IMPACT OF COVID-19 INFECTION IN A COHORT OF PATIENTS WITH SYSTEMIC SCLEROSIS

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Objectives: The aim was to determine the clinical evolution and the prognosis of COVID-19 in a cohort of patients with systemic sclerosis (SSc).

Methods: During the pandemic we had continuous contact by digital media with a cohort of 197 patients with SSc. If they presented a condition that met the suspicious definition of COVID-19 disease, the

polymerase chain reaction test for SARS-CoV-2 was performed and their evolution was followed every 24 hours until they were asymptomatic, or death occurred. Patients with COVID-19 were treated on a regular basis by the outpatient or in-hospital without interfering with their treatment.

Results: Thirteen patients, 57 years of age (range 50 to 77), 9 diffuse cutaneous (dcSSc) and 4 limited cutaneous (lcSSc) become ill with COVID-19 during 9 months of follow-up. Immunosuppressors drugs used at the time of illness were: 6 mycophenolate mofetil, 2 methotrexate, 4 low-dose of prednisone. Seven patients had interstitial lung disease (ILD). Main symptoms were chest pain, cough, dyspnea, dysgeusia and anosmia, 1 had mild symptoms without pneumonia, 11 had mild pneumonia and received outpatient treatment, 1 only one had severe pneumonia requiring hospital management. One used supplemental oxygen as part of her treatment for lung fibrosis but additionally 4 used it during her illness. Only one (7.7%) had severe pneumonia was hospitalized and died at 77 years of age. Three patients discontinued their immunosuppressants during the pandemic and among them was the patient who died. Image 1

Table 1. *Sociodemographic characteristics of patients with scleroderma infected for SARS-CoV-2.*

Characteristic	Data value	Characteristic	Data value
Age, median (IQR), years	57 (52, 63)	Myalgia	8 (61.5)
IMC, median (IQR), Kg/m^2	25.9 (21.4, 29.8)	Arthralgia	9 (69.2)
SO_2% (FIO_2 21%), median (IQR)	90 (88, 92)	Nasal constipation	3 (23.1)
Disease duration, median (IQR), years	15 (9, 20)	Chestpain	10 (76.9)
Bloodtype, No. (%)		Dysgeusia	8 (61.5)
A Rh+	3 (23.1)	Anosmia	8 (61.5)
B Rh+	3 (23.1)	Fever	9 (69.2)
O Rh+	3 (23.1)	Ocular pain	5 (38.5)
O Rh-	2 (15.4)	Otalgia	5 (38.5)
Unknown	2 (15.4)	Anorexy	6 (46.2)
BMI, No. (%)		Diarrhea	5 (38.5)
Normal weight	6 (46.2)	Nausea	4 (30.8)
Overweight	4 (30.8)	Vomit	2 (15.4)
Obesity	3 (23.1)	Dizziness	5 (38.5)
Comorbidities, No. (%)		**Hospitalization, n (%)**	2 (15.4)
Diabetes	2 (15.4)	***Drugs for COVID-19*, n (%)**	
Arterial hypertension	2 (15.4)	Steroids	9 (69.2)
PAH	4 (30.8)	Anticoagulants	8 (61.5)
Hypothyroidism	3 (23.1)	Antiplateletagents	7 (53.8)
SScSubtype, No. (%)		NSAIDs	13 (100)
dcSSc	9 (69.2)	Ivermectin	8 (61.5)
lcSSc	4 (30.8)	Macrolides	9 (69.2)
Treatment for SSc, No. (%)		Otherantibiotics	5 (38.5)
Amlodipine	8 (61.5)	Bronchodilators	2 (15.4)
Mycophenolate	5 (38.5)	Antihistamines	1 (7.7)
Metothrexate	2 (15.4)	Antidiarrheal	1 (7.7)
Prednisone	4 (30.8)	Vitamins	5 (38.5)
Sildenafilcitrate	1 (7.7)	Home oxygen	7 (53.8)
Signs and Symptoms, No. (%)		Antiviral	1 (7.7)
Asthenia and adinamia	8 (61.5)	**Deaths, No. (%)**	1 (7.7)
Odynophagia	5 (38.5)	**Persistent symptoms, No. (%)**	7 (53.8)
Headache	5 (38.5)		
Cough	9 (69.2)		
Conjunctivitis	4 (30.8)		
Dyspnoea	8 (61.5)		

lcSSc: limited cutaneous Systemic Sclerosis; dcSSc: diffuse cutaneous Systemic Sclerosis; PAH: pulmonary arterial hypertension, SO_2: oxygen saturation with pulse oximetry, FIO_2: inspired fraction of oxygen

Conclusion: COVID-19 disease in patients with SSc can be overcome in most cases, even when they have ILD and were using immunosuppressants at the time of contagion with the SARS-CoV-2 virus. The low aggressiveness of atypical pneumonia in these patients may be due to the existence of protective mechanisms that participate in the pathogenesis of SSc.

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PANLAR2021-ABS-1448

CAPILLAROSCOPIC PATTERN IN SYSTEMIC SCLEROSIS WITH / WITHOUT PULMONARY ARTERIAL HYPERTENSION

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Objectives: Pulmonary arterial hypertension (PAH) occurs in 8-15% of patients with systemic sclerosis (SS); it is the main clinical manifestation of vascular involvement and the predominant cause of death. It has been reported that microvascular changes in SS can be evidenced of the presence of PAH and could be detected early with capillaroscopy

Methods: A case-control study, 23 women with a diagnosis of SS according to the ACR / EULAR 2013 criteria were included. PAH was evaluated using ECOTT

Table 1: Clinical characteristics of patients with Systemic Sclerosis

	PAH (+) N=7	PAH (-) N=16	Value of *p*
Age in years, mean ± SD	64.8±20.0	50±11.7	0.036
Female gender, (%)	7(100)	15(93.79	0.40
Comorbidities			
Diabetes mellitus, n (%)	2(28.5)	1(6.2)	0.20
Smoking, n (%)	1(14.2)	2(12.5)	0.67
Arterial hypertension, n (%)	5(71.4)	3(18.7)	0.26
Variety of SS			
Diffuse, n (%)	0(0)	2(12.5)	>0.99
Limited, n (%)	7(100)	14(87.5)	
Time of evolution of the disease in years, median (IQR)	3(2.5-4)	2(1.5-4)	0.57
Raynaud's phenomenon time in years, median (IQR)	5(3-9)	5(2-8.5)	0.82
Raynaud's phenomenon treatment			
None, n (%)	0(0)	3(18.7)	
Calcium antagonists, n (%)	4(57.1)	10(62.5)	
HPI5, n (%)	1(14.2)	0(0)	0.40
Combination, n (%)	1(14.2)	2(12.5)	
Others, n (%)	1(14.2)	1(6.2)	

DE: Standard deviations. SS: Systemic sclerosis. IQR: interquartile range. FR: Raynaud's phenomenon. IDH5: Phosphodiesterase 5 Inhibitors

and the capillaroscopic pattern was described using the format of the report

Table 2: Laboratory and Capiloroscopy Features

	PAH (+) N=7	PHA (-) N=16	Value of *p*
Antibodies			
Anticentromer, n (%)	7(100)	14(82.3)	>0.99
Anti SCL-70, n (%)	5(71.4)	3(18.7)	0.026
Rodnan Score M, median, (IQR)	3(0-8)	4(2-7.5)	0.37
Capilaroscopy,			
Capillary density:			
Normal	5(71.4)	7(43.7)	0.37
Grade 1 decrase, n (%)	0(0)	7(43.7)	
Grade 2 decrase, n (%)	2(28.6)	2(12.5)	0.040
Grade 3 decrase, n (%)	0(0)	0(0)	
Static capillaries, n (%)	4(57.1)	13(81.2)	0.31
Static capillaries grade:			
Less 33%, n (%)	2(28.6)	6(37.5)	0.62
Between 33-66%, n (%)	2(28.6)	6(37.5)	
Greater 66%, n (%)	0(0)	1(6.2)	
Giant capillaries, n (%)	1(14.2)	9(56.2)	0.089
Giant capillaries grades:			
Less 33%, n (%)	1(14.2)	3(18.7)	
Between 33-66%, n (%)	0(0)	4(25)	0.24
Greater 66%, n (%)	0(0)	2(12.5)	
Bleeding, n (%)	2(28.6)	9(56.2)	0.37
Degree of bleeding:			
Less 33%, n (%)	2(28.6)	2(12.5)	0.093
Between 33-66%, n (%)	0(0)	5(31.2)	
Greater 66%, n (%)	0(0)	2(12.5)	
Avascular zones	2(28.6)	7(43.7)	0.65
Avascular zone grade			
Less 33%, n (%)	1(14.2)	5	
Between 33-66%, n (%)	1(14.2)	2(12.5)	0.69
Greater 66%, n (%)	0(0)	0(0)	
Pattern type			
Nonspecific, n (%)	4(57.1)	5(31.2)	
Early, n (%)	1(14.2)	2(12.5)	
Active, n (%)	1(14.2)	2(12.5)	0.52
Late, n (%)	1(14.2)	7(43.7)	

IQR: interquartile range

of capillaroscopy from the PANLAR study group. Rodnan M score, antibodies, and capillaroscopic pattern were compared between patients with and without PAH using the $\chi 2$ and Fisher's exact tests. The association between age, time of Raynaud's phenomenon, disease duration and the different degrees of alterations in capillaroscopy was examined using Pearson's correlation coefficient.

Results: We included 16 patients without PAH (69.56%) and 7 patients with PAH (30.43%), level in 6 (26.08%) and moderate in 1 (4.34%). Clinical characteristics of SS patients with and without PAH (Table 1). Capillaroscopy: Sclerodermal pattern in 11 patients without PAH (68.5%) and in 3 patients with PAH (42.8%). 4 patients with PAH manifesting ectasias (57.1%), 2 decreased capillary density (28.5%), 2 hemorrhages (28.5%), 2 avascular areas (28.5%) and 1 giant capillaries (14.8%); 9 patients without PAH showed decreased capillary density (56.2%) and 7 avascular areas (43.7%). Rodnan, antibodies and capillaroscopy (Table 2). No correlation was found between age, time of Raynaud's phenomenon, disease duration and degrees of alteration in capillaroscopy, a significant negative correlation was observed between age and degree of giant capillaries: ($r = -0.42$, $p = 0.045$),

Conclusions: The presence of anti Scl-70 antibodies was more frequent in patients with PAH compared to patients without PAH. Interstitial lung disease was not found in any patient with PAH and anti Scl-70 antibodies; a decrease in grade 1 capillary density was identified with greater frequency in SS without PAH compared to SS with PAH and a greater frequency in the decrease in grade 2 capillary density in SS with PAH. A significant negative correlation was observed between age and grade of giant capillaries.

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PANLAR2021-ABS-1281

CHARACTERIZATION OF INTERSTITIAL PULMONARY DISEASE IN PATIENTS WITH SYSTEMIC SCLEROSIS

Araceli Chico Capote, Noelia Cedeño Peniche, Miguel Hernán Estévez del Toro, and Ramón García Hernández.

Objectives: To characterize the clinical and imaging manifestations and respiratory function in patients with systemic sclerosis disease and interstitial lung disease.

Methods: An observational, descriptive, cross-sectional study was carried out during the period between December 2018 and December 2019 in the Rheumatology service to characterize interstitial lung disease in 55 patients with systemic who met the established inclusion criteria.

Results: Interstitial lung disease was more frequent in patients over 40 years of age, female, with mixed skin color, the diffuse clinical form predominated, the most frequent symptom was exceptional dyspnea, the majority had positive antinuclear antibodies and the tomographic pattern was of honeycomb. The forced vital capacity was decreased more frequently, being associated with a positive autoimmune behavior for ANTISCL-70.

Conclusion: The radiographic and clinical manifestations of Interstitial lung disease were verified by the usefulness of computed tomography and spirometry to identify the presence of pulmonary fibrosis.

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PANLAR2021-ABS-1304

EVALUATION OF AGAPSS SCORE IN ANTIPHOSPHOLIPID SYNDROME AND ITS THROMBOTIC RISK ASSESSMENT

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Objectives: Predicting the risk of thrombosis remains a challenge in APS. To assess this risk, the Global Antiphospholipid Syndrome Score (GAPSS)

evaluates aPL (LA, aCL, Ab2GPI and aPS/PT) and cardiovascular risk factors. The adjusted GAPSS (aGAPSS) is a simplified version that excludes aPS/PT. The aim of this study was to evaluate the aGAPSS score in patients with primary APS and associated with autoimmune diseases (ADs)

Methods: A cross-sectional, multicenter study of patients admitted to Antiphospholipid Antibody Registry of the APS study group of SAR was carried out. Patients with primary APS and associated with other ADs were included. Data on clinical manifestations, cardiovascular risk factors and aPL profile were collected. aGAPSS was calculated at baseline as follows: 3 for hyperlipidemia, 1 for arterial hypertension, 5 for positive aCL antibodies, 4 for Positive A-B2GPI and 4 for positive LA. A descriptive analysis was carried out, using R software.

Results: Of the 237 patients included in the registry, 143 were included in this study, 86 (60.13%) with primary APS and 57 (39.86%) with APS associated with other ADs. Table 1 describes the sociodemographic and clinical characteristics of these patients. A higher frequency of hypertension (p = 0.04) and arterial thrombosis (p = 0.01) was observed in patients with APS associated compared to primary APS. A higher aGAPSS value was found in patients with associated APS compared to primary APS [median 7 (IQR 6) vs. 4.5 (IQR 5)] but the difference did not reach statistically significance (p = 0.24). Patients with thrombotic manifestations had higher median aGAPSS scores than patients with obstetric manifestations, without statistical significance (p = 0.09). Patients with APS associated with ADs had a numerically higher median aGAPSS than patients with Primary APS (p = 0.24). When the sGAPSS score was stratified in ≤ or > 10 (Table 2) a higher frequency of patients with aGAPSS >10 was observed among patients with thrombotic manifestations in both the group.

Conclusion: In patients with APS associated with ADs, we found a higher frequency of hypertension, arterial thrombotic manifestations and a numerically higher aGAPSS score. However, in patients with primary APS and associated with other ADs, we did not find a significant association between aGAPSS score and the development of thrombotic manifestations and obstetric morbidity.

Table 1- Demographic and clinical characteristics in patients with primary APS and APS associated with ADs

	Primary APS (n=86)	Associated APS (n=57)	p
Female sex *n (%)*	72 *(59)*	50 *(41)*	0.67
Age, yrs *Median (RIQ)*	41 *(10.8)*	42 *(18)*	0.76
Ethnicity			
Caucasian	52 *(60.5)*	22 *(38.6)*	0.01
Mestizo	31 *(36.0)*	29 *(50.9)*	
Amerindian	0	3 *(5.3)*	
Unknown	3 *(3.5)*	3 *(5.3)*	
Arterial hypertension *n (%)*	19 *(22.1)*	21 *(36.8)*	0.04
Hyperlipidaemia *n (%)*	13 *(15.1)*	14 *(24.6)*	0.27
Diabetes *n (%)*	7 *(8.1)*	2 *(3.5)*	0.32
Obesity *n (%)*	18 *(20.9)*	9 *(15.8)*	0.19
Body mass index *Median (RIQ)*	20 *(24.3)*	23 *(24.5)*	0.12
Smokers *n (%)*	23 *(26.7)*	12 *(21.5)*	0.05
Sedentary lifestyle *n (%)*	34 *(39.5)*	20 *(35.1)*	0.24
Thrombosis n (%)			
Arterial	19 *(22.1)*	24 *(42.1)*	0.02
Venous	29 *(33.7)*	27 *(47.4)*	0.14
Small vessel	2 *(2.3)*	5 *(8.8)*	0.12
Obstetric manifestation n (%)			
3 Miscarriages < 10 weeks	15 *(25.9)*	4 *(12.5)*	0.22
1 Miscarriages > 10 weeks	33 *(56.9)*	15 *(45.5)*	0.40
At least 1 premature birth (< 34 weeks)	14 *(24.1)*	9 *(28.1)*	0.87
aGAPSS *median (RIQ)*	4.5 (5)	7 (6)	0.24

Table 2- Association between aGAPSS score, primary APS, associated APS and clinical presentations.

	Primary APS				Associated APS			
	Obstetric (n=41)	Trombotic (n=33)	Both (n=12)	p	Obstetric (n=11)	Trombotic (n=35)	Both (n=11)	p
aGAPSS ≤ 10	39 *(51.3)*	28 *(36.8)*	9 *(11.8)*	0.09	7 *(15.9)*	30 *(68.2)*	7 *(15.9)*	0.17
aGAPSS > 10	2 *(20)*	5 *(50)*	3 *(30)*		4 *(30.8)*	5 *(38.5)*	4 *(30.8)*	

PANLAR2021-ABS-1319

FREQUENCY OF SJÖGREN'S SYNDROME IN PATIENTS WITH DRY SYMPTOMS IN A BOGOT HOSPITAL, USING TWO HISTOPATHOLOGICAL METHODS

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Objectives: The criteria used for Sjögren's syndrome (SS) diagnosis (ACR/EULAR 2016), include labial salivary gland (LSG) biopsy using the focus score (FS, >/=1 focus /4 mm2). Although the FS is the suggested method, it is not performed routinely, since in some cases it continues to be based on Chisholm and Mason (CM). Our objective was to evaluate the frequency of SS in patients with dry symptoms by using two histopathological methods (FS and CM) and to evaluate the degree of inter and intra-observer concordance of the histopathological reading [focal lymphocytic sialadenitis (FLS)] by both methods.

Methods: A cross-sectional study was carried out; patients with dry symptoms who attended to a specialized center (Bogotá-Colombia; September 2019-July 2020) were selected. All patients who had studies to perform the classification criteria for SS ACR/EULAR (2016) were included. The samples were independently evaluated by two second-year pathology residents, previously trained; descriptive statistics were used for the calculation of SS frequency. Agreement was assessed using Cohen's Kappa coefficient. Inter- and intra-observer agreement was analyzed for each test (CM and FS), and overall agreement between tests after resolution of disagreements by a third observer. Data analysis was performed (STATA). Ethics approval was obtained.

Results: 92 patients were included; According to the ACR/EULAR (2016) criteria, SS was reported in 24 (26.1%) patients using the FS and in 32

Table 1. Frequency of histopathological findings between observers.

Histopathological findings	Observer # 1 Nº (%)		Observer # 2 Nº (%)	
	Reading #1	*Reading #2*	*Reading #1*	*Reading #2*
Germinal Centers	0	0	1	1
Ductal dilatation	85 (92,3%)	88 (95,6%)	67 (72,8%)	70 (76%)
Fibrosis	64 (69,5%)	75 (81,5%)	36 (39,13%)	41 (44%)

(34.8%) patients using the CM. The highest frequency of SS was between 41-65 years old for both methods (FS: 70.5%, CM: 71.6%). Anti-RO was positive in 72.5%. FLS was found in 8 (8.7%) patients according to FS and in 38 (41.3%) according to CM. The degree of intra-observer concordance for the diagnosis of FLS was perfect by both methods for observer 1; and high agreement for observer 2 was found with FS (kappa = 0.76) and CM (Kappa = 0.80). Comparisons between both observers demonstrated a 95.65% interobserver agreement for FS (Kappa = 0.77) and a 91.3% interobserver agreement for CM (Kappa = 0.81) (Table 1).

Conclusion: The use of CM as histopathological classificatory method for SS includes more patients when compared with FS. FS method is a more detailed score that facilitates a higher interobserver agreement. These results are of relevance to unify the interpretation of SLG system in specialized services taking care of SS patients.

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PANLAR2021-ABS-1142

HEALTHCARE UTILIZATION AND COSTS AMONG PATIENTS WITH PSORIATIC ARTHRITIS AND PSORIASIS IN THE UNITED STATES – A STUDY OF CLAIMS DATA FROM 2009 TO 2020

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Objectives: The costs of psoriasis and psoriatic arthritis (PsA) are substantial for both patients and the United States healthcare system. This study compared healthcare resource utilization and costs across three groups: patients with psoriasis, patients with PsA, and matched controls with neither psoriasis nor PsA in the United States.

Methods: The IBM MarketScan Commercial Database was used to identify three adult patient groups from 1/1/2009 through 2/29/2020: 1) Psoriasis patients: ≥ 1 inpatient or 2 outpatient psoriasis diagnoses and no PsA diagnoses; 2) PsA patients: ≥ 1 inpatient or 2 outpatient PsA diagnoses; 3) Control: absence of psoriasis and PsA diagnoses. Controls were matched 1:1 to psoriasis and PsA patients based on age, gender, and comorbidities. Healthcare resource utilization and costs (in 2019 USD) were evaluated descriptively and through mixed models for five years of follow-up.

Results: 208,434 psoriasis patients and 47,274 PsA patients were matched to the control group (N = 255,708). Annual all cause healthcare costs per patient were $7,542, $11,856, and $29,621 for the control, psoriasis, and PsA group, respectively. All-cause healthcare costs were significantly greater among patients with PsA and patients with psoriasis than controls at one year ($p < 0.0001$). These costs were also significantly greater for PsA patients than psoriasis patients at one year ($p < 0.0001$). This trend of increased costs for patients with PsA compared with the other groups was sustained throughout the five years of follow-up (Figure 1). Across all categories of healthcare resources, utilization was greatest among patients with PsA and lowest in the control group (Table 1). Categories included inpatient hospitalizations, physician office visits, and hospital outpatient, radiology, emergency room, laboratory, and outpatient pharmacy services.

Conclusion: Annual healthcare costs and resource utilization were significantly higher for PsA patients compared with psoriasis patients and the control group. The cost and resource utilization differences between these patient groups highlight the higher burden of illness for PsA patients as compared to patients with psoriasis, or patients without either of these diseases.

Figure 1. Mean and median all-cause healthcare costs per patient per follow-up year

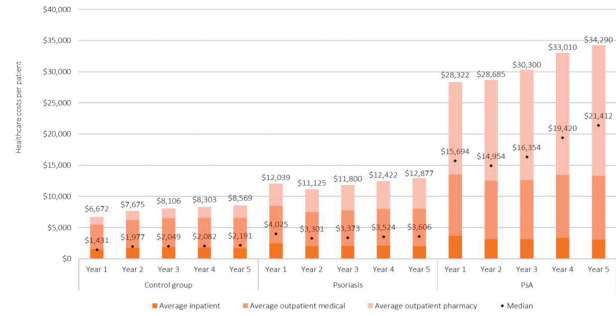

Table 1. Healthcare resource utilization during follow-up

	Control group	Psoriasis	PsA
Number of patients	**255,708**	**208,434**	**47,274**
Inpatient hospitalizations			
Patients with an admission in 1st year - N (%)	12709 (5.0%)	13978 (6.7%)	4487 (9.5%)
Number of admissions (PPPY) - Mean (SD)	0.07 (0.34)	0.08 (0.37)	0.11 (0.44)
Hospital outpatient services			
Patients with services in 1st year - N (%)	111836 (43.7%)	115962 (55.6%)	32661 (69.1%)
Number of services (PPPY) - Mean (SD)	8.29 (24.17)	9.69 (24.35)	15.50 (29.71)
Physician office visits			
Patients with visits in 1st year - N (%)	188685 (73.8%)	205532 (98.6%)	46934 (99.3%)
Number of visits (PPPY) - Mean (SD)	4.52 (5.16)	6.23 (5.92)	9.25 (7.43)
Radiology services			
Patients with services in 1st year - N (%)	113500 (44.4%)	117042 (56.2%)	36011 (76.2%)
Number of services (PPPY) - Mean (SD)	2.49 (5.57)	2.76 (5.56)	4.55 (6.41)
Emergency room visits			
Patients with visits in 1st year - N (%)	30942 (12.1%)	31745 (15.2%)	9209 (19.5%)
Number of visits (PPPY) - Mean (SD)	0.72 (3.96)	0.89 (4.63)	1.38 (7.41)
Laboratory services			
Patients with services in 1st year - N (%)	162768 (63.7%)	180941 (86.8%)	45202 (95.6%)
Number of services (PPPY) - Mean (SD)	9.01 (17.10)	11.32 (17.15)	20.67 (22.94)
Outpatient pharmacy services			
Patients with a prescription in 1st year - N (%)	155984 (61.0%)	176452 (84.7%)	40832 (86.4%)
Number of prescriptions (PPPY) - Mean (SD)	12.65 (19.27)	17.01 (20.96)	28.66 (29.08)

PPPY: per patient per year

PANLAR2021-ABS-1190

DIFFERENTIAL CHARACTERISTICS OF PATIENTS DIAGNOSED WITH EARLY PSORIATIC ARTHRITIS IN A COHORT OF PATIENTS WITH ARTHRALGIA

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Objectives: Many authors have established the frequency of psoriatic arthritis (PsA) in patients with psoriasis (PsO) (33%), but not in a musculoskeletal (MSK) pain clinic. Objectives: To estimate the frequency of PsA in a cohort of patients who consulted for polyarthralgia and to assess the differential characteristics of these patients in relation to patients with a final diagnosis other than PsA.

Methods: Longitudinal cohort study; included patients were older than 18 who were evaluated due to arthralgias by the Reumacheck program (2017-2020). At baseline the following were carried out: laboratory, X-ray films, ultrasound of hands with power Doppler (22 joints) and interview (sociodemographic, clinical, clinimetry). Each evaluator did not know the data of the other studies. In subsequent visits (patients who completed at least 2 visits were included), the results were evaluated and the definitive PsA diagnosis was established according to the CASPAR criteria. Descriptive statistics. Chi square, Fisher's exact test, Student's T-test, MW; a multivariate logistic regression analysis using as the dependent variable PsA, was performed.

Results: A total of 746 (74.4% female, mean age 53.6 years, SD: 14.5) polyarthralgia patients were included, of which 71 (9.5%, 95%CI:7.6- 11.8) had a final PsA diagnosis. The table shows all characteristics of the patients with PsA and their comparison with other diagnoses (controls). No significant differences were found regarding the presence of comorbidities such as diabetes mellitus, arterial hypertension and dyslipidemia (17.6% vs 12.3%, p = 0.21, 34.3% vs 31%, p = 0.57 and 20.5% vs 21.4%, p = 0.86, respectively). Significant differences in smoking, 57.5% (PsA) vs 42.4% of controls (p = 0.01). In the multivariate analysis, PsA was associated with PsO (OR: 563.3, 95% CI: 53.2-5966), family history (OR:102.9, 95 CI: 11-958.2), number of swollen joints (OR:1.4, 95% CI:1.02-2.19), radiographic erosions (OR:9.5, 95% CI: 1.1-80.8) and ultrasound with at least one joint with positive PD signal (OR: 20.2, 95 CI: 2-203.2). On the other hand, there was a negative association with positivity for rheumatoid factor (OR: 0.1, 95% CI: 0-0.18). (Table)

	PsA	Controls	p
Age in years, mean (SD)	50.5 (12.4)	54 (14.7)	0.05
Male gender,%	43.6	23.9	0.0003
Family with psoriasis,%	29.5	6.7	< 0.0001
Psoriasis,%	77.4	2.4	< 0.0001
Global VAS of the patient, mean (SD)	58.5 (24.7)	52.7 (18.4)	0.07
Number of painful joints (28), mean (SD)	2.9 (2.6)	3.6 (3.2)	0.05
Number of swollen joints (28), mean (SD)	1.8 (2.2)	0.6 (1.5)	< 0.0001
ERS, mean (DS)	21.7 (17.7)	20.3 (16.9)	0.51
CRP, mean (SD)	5.4 (6.3)	4.3 (3.3)	0.49
DAS28-ERS, mean (DS)	3.7 (1.2)	3.4 (1.1)	0.15
CDAI, mean (SD)	13.9 (7.2)	12.8 (7.2)	0.20
HAQ, mean (DS)	0.6 (0.4)	0.6 (0.3)	0.94
Rheumatoid factor,%	14	48.1	< 0.0001
Anti-CCP,%	2.5	8.7	0.17
Radiographic erosions,%	46	8.2	< 0.0001
Ultrasound with at least one joint with positive power Doppler signal,%	41.4	6.7	< 0.0001

Conclusion: The frequency of PsA in our cohort was 9.5%; it was associated with a personal and/or family history of PsO, a greater number of swollen joints, radiographic erosions and the presence of hand ultrasound with Power Doppler signal at the joint level; on the other hand, the presence of RF was found to be a protective factor.

PANLAR2021-ABS-1266

SCREENING CRITERIA OF INFLAMMATORY BOWEL DISEASE: APPLICATION IN PATIENTS WITH SPONDYLOARTHRITIS FOR REFERRAL OF PATIENTS BETWEEN RHEUMATOLOGY AND GASTROENTEROLOGY IN A GROUP OF COLOMBIAN PATIENTS

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Objectives: To apply the clinical criteria for the screening of inflammatory bowel disease (IBD) in patients with SpA with gastrointestinal symptoms and their association with disease activity and function.

Methods: A cross-sectional study of 82 patients with SpA, according to ASAS classification criteria without diagnosis of IBD. Clinical evaluation by rheumatologist and in patients with ≥2 gastrointestinal symptoms clinical evaluation by gastroenterologist and IBD screening criteria developed by Sanz et al were performed. Digital chromoendoscopy/magnification colonoscopy/histological, CRP, ESR, ferritin, transferrin, vit/B12 were obtained. The association between clinical variables and colonoscopy/histological variables were evaluated using the Chi-square or Fisher's exact test (Ethical/Cod. 2017-023).

Results: Of the 82 individuals evaluated, 41 of them were referred to gastroenterology with a direction to perform colonoscopy with chromendoscopy, and the IBD screening criteria were applied.100% of the population presented some gastrointestinal symptoms, the most frequent being diarrhea of more than 4 weeks in 61.0%. 68.3% had at least one of the three major criteria, Table 1. Rectorrhagia was associated with BASFI>4, p = 0.050, axial compromise p = 0.043, diagnosis of PsA p = 0.090 and alterations in the architecture of the ileum p = 0.034. Diarrhea was associated with ESR > 20, p = 0.050, BASFI>4, p 0.012. In addition, 70.8% of the patients had at least one of the minor screening criteria associated with higher BASFI levels, p = 0.01. Aphthous stomatitis in 7.3% and abdominal pain in 87.8% which was associated with BASDAI>4 p = 0.023, ASDASCRP>2.1, p = 0.043 and inflammation in the ileum, p = 0.046. No patients with positive iron deficiency anemia were found. However, ferritin alterations were observed in 22.0% and it was associated with chronic inflammation of the colon, p = 0.042. There were no cases of fever or family history of IBD. Highlighting that in 17.1% of the cases a decrease in vitamin B12 levels was detected, associated with the presence of ulcers (p = 0.035) and acute inflammation in the ileum, p = 0.032. Weight loss was found in 31.7% of the cases and was associated with smoking history p = 0.039. See Table 1.

Major Criteria		
Criteria	**Number of patients**	**Frequency %**
Rectal bleeding	8	19.5
Chronic diarrhea	25	61.0
Perianal disease	0	0
Minor Criteria		
Chronic abdominal pain	35	87.0
Iron deficiency anemia or iron deficiency	0	0
Vitamin B12 deficiency	7	17.1
Extraintestinal manifestations: Aphthous stomatitis	3	7.3
Fever or low-grade fever, without focality	0	0
Unexplained weight loss	13	31.7
Family history of IBD	0	0

Table 1. Screening criteria for IBD in SpA patients for referral of patients between Rheumatology and Gastroenterology

Conclusion: The application of the screening criteria for IBD in SpA without IBD reflects a high frequency of intestinal symptoms of sufficient intensity that affect quality of life and disease activity. Early detection of gastrointestinal compromise allows patients to benefit from comprehensive treatment of the disease in its initial stages.

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PANLAR2021-ABS-1386

OPTIMIZING BIOLOGIC THERAPY IN PATIENTS WITH SPONDYLOARTHRITIS IN COLOMBIA

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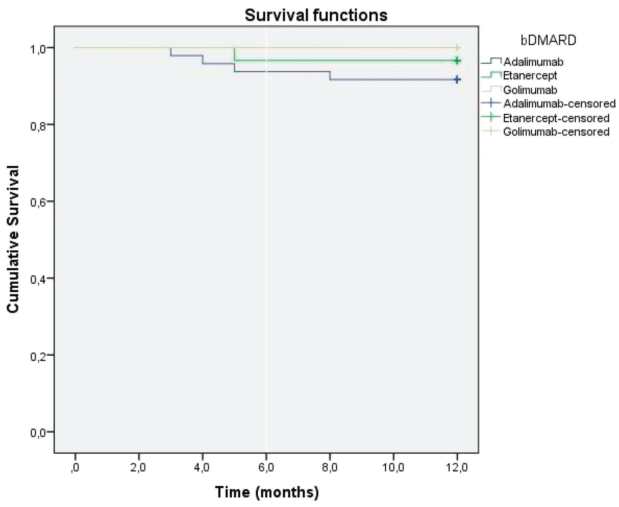
Objectives: Spondyloarthritis (SpA) are a group of chronic inflammatory diseases that share genetic, clinical, and radiographic characteristics, but have an heterogeneous therapeutic response. Biological therapy (bDMARD) is effective in controlling symptoms, improving quality life and could have an impact on radiographic disease progression. Currently, EULAR guidelines supports bDMARD optimization in patients with sustained remission (BASDAI ≤4). Our objective is to determine relapse rate in patients with SpA during bDMARD optimization

Methods: Cohort (October 2014 to February 2021) of patients with SpA in multicenter health institution in Colombia. Optimization strategies included dose decrease and increase in time interval between bDMARD application. Patients >18 years, with sustained remission for at least 12 months, were included. Relapse is defined as an increase in BASDAI ≥1 + 2 ≤ final BASDAI ≤4 and/or a relapse during follow-up. Using Kaplan-Meier, relapse rate was determined according to patient´s medication.

Results: 87 patients were included, median age of 46 years (Interquartile Range-IQR: 40-58), 69% (n = 30) were men, 94.3% were diagnosed with ankylosing spondylitis (AS) and 5.7% other SpA; median disease duration 11.3 years (IQR 7.6-15.6) and treatment time of 6.3 years (IQR 3.1-9.2). Most frequently optimized drug was adalimumab 55.1% (n = 48), followed by etanercept 34.3% (n = 30), and golimumab 10.3% (n = 9). In 98.8% of patients, the optimization strategy was to increase time application interval. During follow-up, only 5 patients relapsed, and drug had to be changed in two patients. Relapse incidence rate was 0.057 person-year (95%CI 0.01-0.13, p-value = 0.00). No significant differences were found in relapse rates according to optimized drug (Log Rank = 1.455, p-value = 0.48; Figure 1).



Conclusion: 94.2% of patients in optimization remain in remission after one year of follow-up with low relapse rates, these data support bDMARD optimization in ADs in real life scenarios, as a strategy that can reduce risk of complications.

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PANLAR2021-ABS-1427

PREVALENCE OF METABOLIC SYNDROME IN BRAZILIAN PATIENTS WITH PSORIATIC ARTHRITIS AND ASSOCIATION OF OBESITY WITH THE PSORIATIC ARTHRITIS IMPACT OF DISEASE (PSAID-12) - A MULTICENTER STUDY

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Objectives: To study the prevalence of metabolic syndrome in patients with psoriatic arthritis and the correlation between obesity and PsAID 12 score.

Methods: A cross-sectional multicenter study. A total of 160 patients who fulfilled the Classification for Psoriatic Arthritis (CASPAR) criteria were recruited in 6 Brazilian rheumatology centers. MS was defined according to the criteria of The National Cholesterol Education Program (NCEP) Adult Treatment Panel III (ATP III) and obesity by the Body Mass Index (BMI). The association of BMI with PsAID-12 was assessed using Spearmans correlation coefficient. The level of significance adopted was 5% ($p < 0.05$). All participants signed the Free and Informed Consent Term.

Results: Of the 160 patients included, 50% were female, with a mean age (SD) of 54.0 ± 11.2 years. Regarding psoriatic disease, 68% had only peripheral arthritis and 32% had pure or mixed axial impairment. The prevalence of MS was 62.5% and obesity was present in 34.4% of the patients. There was a statistically significant positive association between BMI and the total PsAID-12 score: The higher the degree of obesity defined by the BMI, the higher the PsAID-12 scores.

Conclusion: In our experience, the MS was present in more than 60% of the patients and the PsAID-12 score correlated with obesity: obese patients had a significantly higher impact of the PsA as measured by PsAID-12 score.

PANLAR2021-ABS-1202

GOTAPS: OVERLAPPING OF TWO ENTITIES. CASE SERIES

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Objectives: Psoriasis (Ps) is a disease that affects 2-3% of the population; 25% of these courses with Psoriatic arthritis (PsA). PsA and gout can occur simultaneously, and multiple studies have demonstrated the strong link between PsA, Ps and Hyperuricemia (HU), as well as between HU and Psoriasis Area Severity Index (PASI) and inflammation markers. In fact, HU is present in up to 40% of patients with psoriasis making them prone to have a more aggressive course of the disease. Patients with Ps have increased risk of developing gout (RR 2.72), and is higher in PsA (RR 4.95). Aim: To describe the association between PsA and Gout

Methods: Descriptive case series

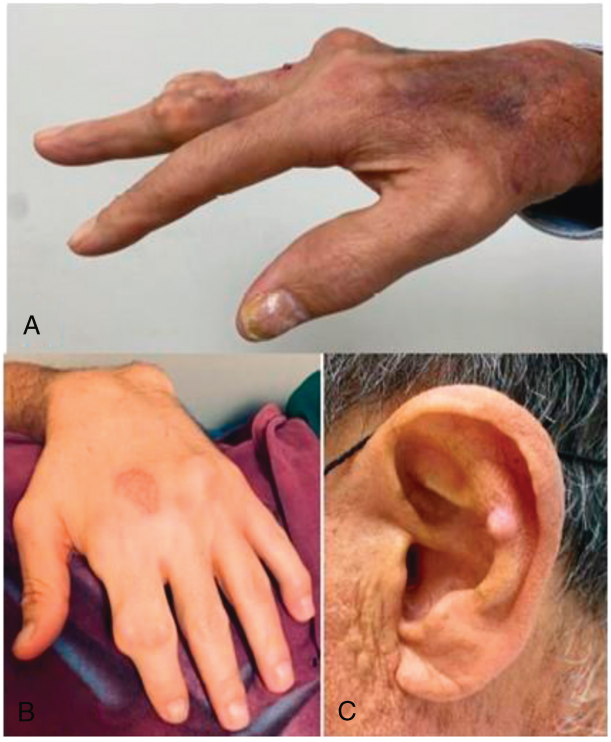
Results: Patient#1: 63-year-old male. Physical Exam (PE) diffuses psoriatic plaques in hands, elbows, palms and soles; tophi located in the antihelix, hands,

Table 1. Clinical Characteristics of the patients

Characteristics	Patient #1	Patient #2	Patient #3	Patient #4
Sex	Male	Male	Male	Male
Age (y/o)	63	56	37	53
BMI	23	25	24	37
Diabetes Mellitus 2	-	-	-	-
Hypertension	-	-	+	-
Alcohol intake g/week	323	1983	0	728
Smoking, pack/years	5	15	0	7
Metabolic Syndrome	-	-	+	+
Dyslipidemia	-	-	+	+
Family History	-	Mother w/Rheumatoid arthritis	Brother with psoriasus	Sister w/psoriasis
Serum Urate levels mg/dl	6.2	7.9	8.1	6.6
Serum Creatinine , mg/dl	0.8	1.01	0.54	0.95
Depression/anxiety	-	-	+	-
PASI	2.4	4.8	14	3
Psoriasis duration, years	3	6	5	8
CASPAR PsA criteria	+	+	+	+
Type of PsA	Asymmetrical Oligoarthritis	Asymmetrical Oligoarthritis	Symmetrical polyarthritis	Symmetrical polyarthritis
HLA-B27	-	-	-	-
Rheumatoid Factor	-	-	-	-
Erythrocyte sedimentation rate (ESR), mm/h	30	26	38	6
C-reactive Protein (CRP), mg/l	3.6	35.5	6	0.5
DMARDs Use	+	+	+	+
NSAIDs use	+	+	+	+
Glucocorticoids Use	+	-	+	-
Xanthine Oxidase Inhibitors use	+	+	+	+

elbows, knees, tibia and Achilles tendons, onycholysis in nails. Patient #2:56 y/o male. PE: multiple tophi, red plaques with silver scale on legs, Hyperkeratosis, leukonychia and nails dystrophy. Patient#3: 37 y/o male. PE: tophi, dactylitis, enthesitis and polyarthritis. Patient#4: 53 y/o male. PE: MCP, PIP arthritis, psoriatic plaques in the dorsal aspect of the left hand, tophi in elbows. These data are shown in Table 1 and Figure 1.

Figure 1. A: nail lesions and tophi in MCP and IP joints. B: Psoriatic patches in hand and tophus in interphalangeal and carpal joints. C: tophus in antihelix.



Conclusion: We propose GotApS as a term to describe an entity that is the result of the overlapping of PsA and Gout; these diseases share risk factors and comorbidities, but not treatment. It is important to identify these patients because they require a simultaneous approach for both entities and should be seen as a novel overlap syndrome between inflammatory and metabolic rheumatism, both can influence and affect the activity of the other disease and need to be treated covering both areas.

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PANLAR2021-ABS-1257

UNDIFFERENTIATED PERIPHERAL SPONDYLOARTHRITIS IN A YOUNG MAN, A CASE REPORT

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Objectives: Spondyloarthritis (SpA) is characterized by being a group of pathologies that present one or more of the following characteristics: arthritis (peripheral or axial), enthesitis and dactylitis. Its diagnosis is based on the criteria of the Assessment of Spondyloarthritis International Society, often associated with psoriasis, inflammatory bowel disease, uveitis, family history and the presence of HLA-B27. The following report aims to catalog an unusual manifestation, since only about 6% of patients with SpA present predominantly peripheral manifestations without psoriasis.

Methods: Medical record review.

Results: A 19- year-old man. Since age thirteen, he exhibited severe pain in ankles and knees, associated with morning stiffness and anxiety. At the time, he was diagnosed as Juvenile Idiopathic Arthritis, treated with Methotrexate (20 mg/week) + prednisone (5 mg/day) + NSAID, initially maintaining good control of the disease.

When he turned 18, he was referred to our Adult Rheumatology Service, presenting an active disease, with diffuse pain in the limbs, mainly in the knees, shortening of the hamstrings and irritable bowel syndrome. During the investigation, infections were excluded and HLA-B27 was negative. In MRI, he presented alterations with inflammatory characteristics in the subchondral location of the tibial plateau, medial femoral condyle and femoral trochlea, in addition to enthesitis of the proximal insertion of the lateral collateral ligament and origin of the lateral gastrocnemius.

Then, we decided to switch to Infliximab, keeping Amitriptyline for chronic pain control and fluoxetine + clonazepam for anxiety. Since then, the patient reports being satisfied, with low pain and a slight functional restriction.

Conclusion: Spondyloarthritis is a heterogeneous group of diseases characterized by inflammatory involvement of joints and enthesitis. Despite an unusual clinical presentation and no precise diagnosis, the patient in question showed a good response to the standard treatment with Anti-TNF.

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PANLAR2021-ABS-1176

CARDIOVASCULAR RISK IN SPONDYLOARTHROPATHIES: A COMPARATIVE STUDY

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Objectives: To compare the prevalence of high cardiovascular risk between spondyloarthritis and controls without any rheumatic disease.

Methods: We carried out a cross-sectional study. Patients with a diagnosis of spondyloarthritis were included and their cardiovascular risk was estimated using the QRISK 2 scale. They were compared with patients without a history of rheumatological disease admitted to the hospital during 2020.

Results: We included 114 patients with spondyloarthropathies (63 ankylosing spondylitis, 39 psoriatic arthritis, 5 enteropathic arthropathy, 5 reactive arthritis, 2 undifferentiated spondyloarthritis); they were compared with 119 patients without rheumatological disease. In the first group we found higher levels of total cholesterol (184.5 [55-336] vs 157 [72298], $p < 0.001$) and HDL cholesterol (39.9 ± 10.1 vs 27 [5-62] $p = <0.0001$), but in the second group, the cholesterol/HDL ratio (5.84 [2-58-40.1] vs 4.80 ± 1.09 $p = 0.016$) and cardiovascular risk (7.8 [0.1-47] vs 4.6 [0.1-51.9] $p = 0.006$) were higher. The difference in the prevalence of high cardiovascular risk (> 20% probability of suffering a cardiovascular event at 10 years) was not significative (13 [72.2%] vs 5 [27.8%] $p = 0.062$). In a secondary analysis, it was found that psoriatic arthritis patients had a higher cardiovascular risk compared to the other groups (6.8 [0.1-51.9] $p = 0.001$).

Conclusion: In this study, no significant difference was found in the prevalence of high cardiovascular risk among patients with spondyloarthritis compared with controls.

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PANLAR2021-ABS-1194

LIPID PROFILE IN PSORIATIC ARTHRITIS. FREQUENCY AND ASSOCIATION WITH DISEASE ACTIVITY

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Objectives: To study the frequency of altered lipid profile in patients with Psoriatic arthritis (PsA) and its association with disease activity.

Methods: We studied all patients with diagnosis of PsA who consecutively attended to Rheumatology Unit at Cordoba Hospital from July 2018 to December 2019. PsA was diagnosed according with the CASPAR criteria. Clinical, and laboratory data were collected. The activity of the disease was evaluated by PASI, MDA and DAPSA; $p < 0.05$ was considered statistically significant.

Table. 1 Activity Disease Index in PsA

ACTIVITY INDEX	RESULTS
DAPSA	14,45 (9,72-23,92)
DAPSA ≤4 REMISSION >4 y ≤14 low disease activity >14 y ≤28 moderate disease activity >28 high disease activity	 3 16 17 3
cDAPSA	14,00 (8,00-23,00)/41*
MDA	9 (25)/36
PASI	2,20 (0,20-6,80)/41*

Table. 2. Lipid Profile in PsA patients.

Cholesterol (mg/dl)	194,5 (164,8-218,2)
HDL (mg/dl)	48,00 (37,00-57,00)
LDL (mg/dl)	114,5 (78,5-140,8)
TG (mg/dl)	139,50 (89,25-191,20)
Apo A (mg/dl)	165,5 (138,0-185,8)
Apo B (mg/dl)	99,50 (78,00-125,80)
Apo B/Apo A ratio	0,63 (0,42-0,81)
Lipoprotein (a)	8,13 (4,58-23,82)

Results: 42 PsA patients were included. Mean age was 56 years (47,25-62,75) and 54.76% were female (n = 23).

92.86% (n = 39) of the patients had plaque Psoriasis and 87.8% (n = 36) had peripheral joint involvement.

Regarding comorbidities, 27 (64,3%) had metabolic syndrome, 13 (30,95%) diabetes, 22 (52,40%) obesity, 15 (35,7%) dyslipidemia, 19 (45,24%) arterial hypertension, 13 (30,95%) were ex-smokers and 8 (19,05%) current smokers.

About the treatment received, 31 (73,8%) used topical therapy, 3 (7,14%) phototherapy, 31 (73,8%) Methotrexate and 17 (41,46%) biologics and JAK inhibitor. Activity Disease Index and Lipid profile are shown in Table 1 and 2.

There was no association between Apo B/Apo A coefficient with DAPSA (rho = 0,013; p = 0.9396) and MDA (rho = -0,029; p = 0.8671).

Conclusion: In spite of the presence of cardiovascular factors in the majority of PsA patients, lipid profile was not associated with disease activity in this population. However, the presence of hypertriglyceridemia was a characteristic finding in these patients.

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PANLAR2021-ABS-1185

DO WE NEED IMMUNOBIOLOGIC DRUGS FOR TREATING AUTO-IMMUNE ACUTE ANTERIOR UVEITIS IN A TERTIARY REFERRAL CENTRE?

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Objectives: To evaluate the use of immunobiological drugs in auto-immune acute anterior uveitis in patients referred by rheumatologists and ophthalmologists to an auto-immune ocular diseases' clinic.

Methods: Medical records review analysis of autoimmune acute anterior uveitis cases referred to a Rheumatology- Ophthalmology joint clinic between January 2010 and January 2021. The clinic received only referred cases from other ophthalmologists, mainly from a Uveitis Clinic, or from rheumatologists.

Results: 37 patients were identified and studied. The majority were women (n = 23, 62%), with a mean age of 44 years. Many patients had no identifiable underlying systemic disease (n = 18, 48,6%). 29,7% (n = 11) of the cases were secondary to either ankylosing spondylitis or undifferentiated spondyloarthropathy. Other associated conditions were rheumatoid arthritis (n = 2, 5,4%), juvenile idiopathic arthritis (n = 4, 10,8%), reactive arthritis (n = 1, 2,7%) and psoriatic arthritis (n = 1, 2,7%). 73% (n = 27) of the patients presented no sign of disease activity at the time of the latest evaluation (mean remission period 28 months). Of these, 19 patients (70,3%) had received synthetic disease-modifying antirheumatic drugs (sDMARD), most commonly methotrexate (n = 15) and sulfasalazine (n = 6), 14 of which used sDMARD only. Still in the remission group, only 7 (25,9%) used immunobiological drugs, 3 of which had strictly articular disease activity as drug indication. The most commonly used immunobiological drugs were TNF-alpha antagonists, mainly adalimumab (n = 5). 7 patients of the general group did not receive any systemic treatment and were referred for etiological investigation only (See Table).

Conclusion: Despite the current interest in the role of immunobiological drugs in acute anterior uveitis, in a highly selected sample of mostly refractory cases such as the one presented in this study, only 25,9% of patients needed immunobiologics to achieve remission.

Table 1. Characteristics of the studied populaion

Female		23
Average age		44
Underlying disease	Idiopathic	18
	Spondyloarthropathy	11
	Juvenile Idiopathic Arthritis	4
	Rheumatoid arthritis	2
	Reactive arthritis	1
	Psoriatic arthritis	1
Achieved remission		27
Used synthetic DMARD only		16
Used biologic DMARD only		2
Used biologic and synthetic DMARD		8
Used only corticosteroids		4
Used of no systemic drugs		7

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PANLAR2021-ABS-1258

OPHTHALMOLOGICAL FINDINGS IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS IN THE RHEUMATOLOGY SERVICE OF HOSPITAL PADRE BILLINI, SANTO DOMINGO, DOMINICAN REPUBLIC

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Objectives: Describe the ophthalmological findings in patients with Juvenile Idiopathic Arthritis.

Methods: Observational study. The files of the patients from the outpatient clinic of the rheumatology service from October 2020-February 2021 were evaluated. Inclusion criteria:> 18 years of age, meet JIA classification criteria according to ILAR 2001. Exclusion criteria: 1) absent>3 consecutive visits, 2) Not having an ophthalmological evaluation.

Data were analyzed with SPSS V23.

Results: A total of 1,436 consultations, 46 patients met diagnostic criteria, 27 inclusion criteria. 59.25% (16) were female. The average age 38 ± 7.3 years. ANA +25.92% (7). Oligoarticular 62.96% (17), polyarticular 25.92% (7), related to enthesitis 11.11% (3). Average DAS28 (CRP) 2.3 ± 0.8. In therapy with DMARDcs: Methotrexate 70.07% (20), Hydroxychloroquine 7.40% (2). In biological therapy 32.06% (15): Adalimumab 40% (6), Tocilizumab 26.67% (4), Etanercept 20% (3), Golimumab 6.67% (1), Tofacitinib 6.67% (1). In ocular findings: Decreased visual acuity 70.37% (19), Cataracts 22.22% (6), posterior synechiae 14.81% (4), Chronic uveitis 11.11% (3), Glaucoma 7.40% (2), Blindness 7.40% (2), band keratopathy 3.70% (1).

Conclusion: In our study, we found that most patients have decreased visual acuity, and cataracts and posterior synechiae are more frequent as sequelae of the disease.

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PANLAR2021-ABS-1261

FACTORS ASSOCIATED WITH AXIAL INVOLVEMENT IN PATIENTS WITH REACTIVE ARTHRITIS IN AN ARGENTINE-GUATEMALAN COHORT

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Objectives: To evaluate the frequency of axial involvement and factors associated with this compromise in patients with ReA of the Argentine-Guatemalan cohort.

Methods: ReA (according to Calin'79 criteria) and post-infectious arthritis patients, older than 18 years of age, were included. Sociodemographic data, disease characteristics and treatments were recorded. Disease activity (DAS28, BASDAI), functional ability (HAQs, BASFI) and quality of life (EQ5D) questionnaires were applied. Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) were recorded. Painful (68) and swollen (66) joint counts, enthesitis points (MASES) and BASRI were recorded. Statistical analysis: descriptive statistics of the variables under study. Chi square and Mann-Whitney tests were used to evaluate factors associated with axial compromise.

Results: 40 patients were included, 36 with ReA and 4 with post-infectious arthritis. 60% were men, median age 37 years (IQR 28-47) and median disease duration 16 months (IQR 2-44.7). The most frequent cause of ReA was urogenital in 64% and gastrointestinal in only 18%. 92.7% had peripheral joint involvement, 37.5% axial involvement, 17.5% dactylitis, 45% enthesitis with median MASES of 0 (IQR 0-2) and 10% uveitis. Of 20 patients who underwent HLA B27 testing, 50% were positive. Only one patient presented axial involvement exclusively. Among the 37.5% with axial compromise, median BASDAI was 3.4 (IQR 1.7-5.8), BASFI 2.6 (IQR 1.3-4.3), BASRI 2 (IQR 0-4.5) and HAQs 0.25 (IQR 0-0.85). The dimensions that showed greater involvement in the EQ-5D were pain and discomfort (62.8%), mobility (43%) and difficulty in daily activities (43%). 90% were receiving NSAIDs, 45% DMARDs and 7.5% anti TNF alpha.

When the different factors associated with axial involvement were evaluated, it was observed that these patients had significantly more enthesitis, both by physical examination and MASES (p = 0.005 and p = 0. 002, respectively), higher HAQs (p = 0.003), greater difficulty in self-care (p = 0.043), higher physician VAS (p = 0.03), HLA B27 positivity (p = 0.006) and lower ESR (p = 0.05).

There were no differences between patients with axial and peripheral involvement in relation to the frequency of smoking, gender, age, disease duration, uveitis or CRP.

Conclusion: In our Argentine-Guatemalan cohort, 37.5% of the patents had axial involvement, which was associated with the presence of enthesitis, worse functional ability and HLA B27 positivity.

PANLAR2021-ABS-1256

FATIGUE ASSESSMENT IN PSORIATIC ARTHRITIS, SANTO DOMINGO, DOMINICAN REPUBLIC

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Objectives: To assess the degree of fatigue in patients with psoriatic arthritis.

Methods: Observational, longitudinal study. Patients from the outpatient clinic of the rheumatology service were interviewed between January-March 2021. Inclusion criteria:> 18 years of age, meet the PsA classification criteria according to 2006 CASPAR. Exclusion criteria: absent>2 consecutive visits. Data were analyzed with SPSS V23.

Results: A total of 80 patients, 52 patients met the inclusion criteria. 55.76% were female. The mean age 53 ± 12.19 years. The average duration of the disease 7.92 years. Regarding the PGA (patient global assessment) they had an average of 5.18 points (moderate), with an average of FACIT-F 20.8 and HAQ-DI 1.2. Regarding disease activity, patients with DAPSA28 in remission 55.76%, with an average FACIT-F of 31.2, and HAQ-DI 1.7. Patients with a DAPSA28 in moderate activity 36.52%, had an average FACIT-F of 15.3 and HAQ-DI 2.1. Patients with high activity 7.69% with an average FACIT-F of 10.6, average HAQ-DI 2.7.

Conclusion: Our study finds that severe fatigue is related to the activity of the disease, therefore it plays an important role in the psychosocial well-being of the patients, their ability to interact with their environment and their self-perception of the disease.

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PANLAR2021-ABS-1263

ASSESSMENT OF FATIGUE IN ANKYLOSING SPONDYLITIS AT PADRE BILLINI HOSPITAL, DOMINICAN REPUBLIC

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Objectives: To evaluate the degree of fatigue in patients with ankylosing spondylitis

Methods: Observational, cross-sectional study. Ankylosing spondylitis patients of the rheumatology service of the Padre Billini Teaching Hospital were interviewed in January and April 2021. Inclusion criteria:> 18 years, AE by ASAS criteria. Exclusion criteria: patients with fibromyalgia, depression or anxiety, severe intellectual deficit or problems understanding and making themselves understood in the Spanish language, which would prevent the reading or comprehension of the FACIT-F Test. Fatigue was measured using the fatigue subscale of the FACIT-F quality of life questionnaire. Data were analyzed with SPSS V23.

Results: 88 patients met the inclusion criteria. 96.5% (85) male, 3.4% (3) female, mean age 39.8 years, mean diagnosis 7 ± 2.2 years. 51.1% HLA-B27 positive. 13.6% (12) anterior uveitis. 100% (88) use bDMARD, 13.6% (12) combined with scDMARD2.9% (29) adalimumab, 9% (8) golimumab, 3.40% (3) Etarnecept, 53.4% (47) secukinumab, 1.1% (1) Infliximab. Average FACIT-F 45.3 points, mean HAQEA score was 20.6 points, regarding the relationship of disease activity patients with ASDAS

Conclusion: Our study showed that the degree of fatigue is lower in patients with inactive or low-activity ankylosing spondylitis, compared to patients with high activity.

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Abstracts

PREVALENCE AND ASSOCIATED FACTORS OF SLEEP DISORDERS IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS

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Objectives: The present study aims to assess the prevalence and associated factors with sleep disorders in axial spondyloarthritis (axSpA) patients.

Methods: Data from 2,846 unselected patients of the European Map of Axial Spondyloarthritis (EMAS) through an online survey (2017-2018) across 13 European countries were analyzed. Data are being collected in Argentina, Brasil, Colombia, Costa Rica and Mexico. Sleep disorders were assessed by the question: "Please indicate whether you have been diagnosed with sleep disorders". Possible associated factors included: Socio-demographic, patient-reported outcomes (disease activity through BASDAI [0-10], engagement in physical activity, reported work impact, risk of poor mental health through 12-item General Health Questionnaire [GHQ-12; 0-12], functional limitation [0-54] and presence of anxiety and depression diagnosis. Mann-Whitney test was used to compare the means of numerical variables between dichotomous variables, χ^2 test was used to compare the distribution between the categorical variables. Simple and multivariate logistic regression were used to identify possible associated factors.

Results: A total of 2,846 axSpA patients participated in the EMAS survey: mean age was 44 years, 61.3% female, 48.1% had a university degree, and 71.3% were HLA-B27 positive. The prevalence of sleep disorders was 39.0%. In the bivariate analysis, sleep disorders was associated with female gender (68.3% vs. 31.7%; p < 0.001), overweight/obesity (56.5% vs. 49.8%; p < 0.001) BASDAI (6.1 ± 1.8 vs. 5.0 ± 2.1; p < 0.001), work impact (56.5% vs. 38.2%; p < 0.001), anxiety (56.8% vs. 12.5%; p < 0.001), depression (51.8% vs. 10.1%; p < 0.001) and higher GHQ-12 (6.4 ± 4.0 vs. 3.9 ± 3.9; p < 0.001). Factors independently associated in the multivariate analysis were anxiety (OR = 3.842 p < 0.001), depression (OR = 3.088; p < 0.001) and female

gender (OR = 1.398; p = 0.002; see Table). According to employment status, the groups with the greatest prevalence of sleep disorders were those on permanent (52.3%) and temporary sick leave (50.2%). The employed group had the lower prevalence (32.9%).

Table. Regression analysis to predict presence of sleep disorders (N = 2191)

	Simple logistic regression			Multivariate logistic regression		
	OR	95% CI	p-value	OR	95% CI	p-value
Gender (female)	1.594	1.355-1.874	**<0.001***	1.398	1.129-1.729	**0.002***
Marital status (married)	1.126	0.989-1.282	0.074	NA	NA	NA
Overweight/Obesity	1.311	1.123-1.531	**0.001***	1.391	1.135-1.705	**0.001***
BASDAI (0-10)	1.328	1.270-1.388	**<0.001***	1.072	0.953-1.206	0.246
Fatigue/Tiredness (0-10)*	1.279	1.230-1.330	**<0.001***	1.043	0.968-1.123	0.271
Morning Stiffness intensity (0-10)*	1.191	1.150-1.233	**<0.001***	1.049	0.977-1.126	0.188
Reported Work impact (yes)	2.099	1.779-2.476	**<0.001***	1.290	1.050-1.584	**0.015***
Anxiety (yes)	9.176	7.579-11.109	**<0.001***	3.842	2.991-4.935	**<0.001***
Depression (yes)	9.525	7.784-11.656	**<0.001***	3.088	2.374-4.018	**<0.001***
GHQ-12 (0-12)**	1.162	1.138-1.186	**<0.001***	1.032	1.003-1.062	**0.029***

*As measured by the respective item of the BASDAI scale
**12-item General Health Questionnaire. A value of 3 or above indicates a risk of poor mental health

Conclusions: Sleep disorders were found to be highly prevalent among axSpA European patients and strongly associated with poor mental health, female gender and higher spinal stiffness. Concerning the occupational status, patients on permanent and temporary sick leave presented the greatest levels of sleep disorders. Rheumatologists should consider referring to mental health professionals when identifying possible cases of sleep disorders.

PANLAR2021-ABS-1354

FACTORS ASSOCIATED WITH ENGAGING IN PHYSICAL ACTIVITY IN AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS)

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Objectives: The aim is to identify factors associated with engaging in physical activity among axial spondyloarthritis (axSpA) patients.

Methods: Data from 2,846 unselected patients participating in EMAS, an online survey (2017-2018) across 13 European countries, were analysed. Data are being collected in Argentina, Brasil, Colombia, Costar Rica and Mexico. Engaging in physical activity was assessed by the following item: "Do you do any physical or sporting activity?" for which participants could report at least 1 physical activity or that they did not do any physical activity. BASDAI (0-10), spinal stiffness (3-12), functional limitation (0-54), and mental health using General Health Questionnaire GHQ-12 (0-12) were assessed. Mann Whitney and χ^2 tests were used to analyze the relationships between engaging in physical activity and sociodemographic factors, patient-reported outcomes, employment, lifestyle and comorbidities. Univariable and multivariable binary logistic regression were used to analyze variables possibly explaining engagement in physical activity (N = 2,424).

Results: Mean age of the sample was 43.9 ± 12.3 years, 61.3% were female, and 48.1% had a university degree. 81.8% (n = 2,329) engaged in at least one kind of physical activity. Those physically active were typically male, university educated, married, and members of a patient organization. 25.1% of obese patients (n = 533) did not engage in physical exercise (v. 16.6%, p < 0.001). Those who did not engage in physical activity reported greater disease activity, functional limitation, spinal stiffness, and poorer mental health. Furthermore, 83.9% of those employed (n = 1,457) were physically active, versus 73.7% of unemployed (n = 205; p < 0.001). In the multivariable binary logistic regression, the qualitative variables associated with physical activity were belonging to a patient organization (OR = 1.91), not being obese (OR = 1.58), being university educated (OR = 1.54), and being male (OR = 1.39); and the quantitative were lower spinal stiffness (B = -0.110), better mental health (B = -0.042), and one year age increase (B = 0.017; see Table).

Table. Regression analysis. Dependent variable: physical activity (n= 2,424)

	Univariable logistic analysis		Multivariable logistic analysis	
Qualitative variables	**OR**	**p[7]**	**OR**	**p[7]**
Gender. Male[1]	1.478	**<0.001**	1.388	**0.018**
Educational level. University[2]	1.732	**<0.001**	1.535	**0.001**
Marital Status. Married[3]	1.732	**<0.001**	1.181	0.219
Patient organization. Member[4]	1.707	**<0.001**	1.910	**<0.001**
Body Mass Index. Not Obese[5]	1.692	**<0.001**	1.577	**0.003**
Employment status. Employed[6]	1.284	**0.013**	1.001	0.993
Quantitative variables	**B**	**p[8]**	**B**	**p[8]**
Age	0.011	**0.007**	0.017	**0.006**
BASDAI (0-10)	-0.149	**<0.001**	-0.039	0.351
GHQ-12 (0-12)	-0.064	**<0.001**	-0.042	**0.013**
Functional Limitation (0-54)	-0.005	0.090	0.002	0.606
Spinal Stiffness (3-12)	-0.105	**<0.001**	-0.110	**<0.001**
Proportion of life with axSpA(0-1)	1.041	**0.001**	0.694	0.083

[1]Male vs Female; [2]University vs no university (no schooling, primary, high school); [3]Married vs single, separated/divorced and widow;[4] Member vs not; [5]Not obese (underweight, normal and overweight) vs obese; [6]Employed vs not (unemployed, sick leave, early retirement/retirement, housework and student).[7]p-value for test H_0: OR = 1 [8]p-value for test H_0 B = 0.

Conclusion: These results show that increasing age, being male, university educated, member of a patient organization, not obese, having lower spinal stiffness, and better mental health increase the probability of engaging in physical activity. Physical activity is an important part of axSpA care and patient organizations play a critical role in enhancing access to and participation in physical activity.

PANLAR2021-ABS-1399

EVALUATION OF SPINE MOBILITY IN PATIENTS WITH ANKYLOSING SPONDYLOARTHRITIS THROUGH A NOVEL MULTI-SENSOR INERTIAL SYSTEM: A PILOT TEST

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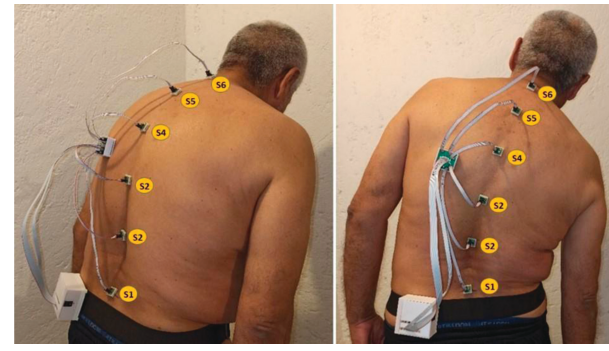
Objectives: Clinical evaluation of spinal mobility of spondyloarthritis diseases patients is done with the Bath AS Metrology Index (BASMI) [1]. It comprises the assessment of 5 movements involving the spine. While the results may be helpful, BASMI has been conceived to be applied manually using goniometers and tape measures. Consequently, it affects its reproducibility due to possible systematic application errors and subjectivity. Thus, it is necessary to investigate and demonstrate the limitations of the manual method and develop less subjective metrics with higher repeatability.

Methods: The use of inertial systems (IMU) to assess the mobility of AS patients have been recently proposed. A single IMU to evaluate the cervical spine [2]; three IMUs assess the cervical and lumbar spine in separate movement series [3]. The IUCOASMI index and its correlation with BASMI have been proposed based on two IMUs [4]. Such systems have shown accuracy and repeatability but are limited in the amount of information that can provide over the entire spine, the hip, and pelvis articulations concurrently.

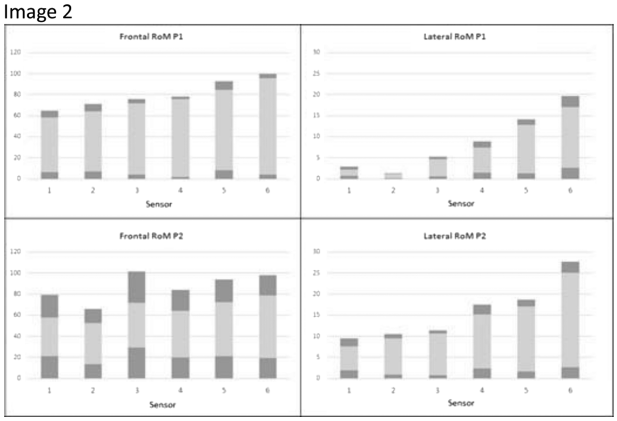
We present a novel multi-inertial sensor system comprising up to sixteen small IMU sensors. The system and the size of the sensors have been designed specifically for spine motion assessment. The IMU sensors can be placed along the back of the patients to evaluate their spine movements simultaneously. The IMUs provide angular inclination information and dynamic ranges of motion of the flexion/extension movements of the spine with finer kinematic segments



than current systems at different possible configurations. The inclination/rotation estimation is due to state-of-the-art signal processing algorithms based on Kalman filters and the tri-axial accelerometers, gyroscopes, and magnetometers of the IMUs.

Results: To evaluate the functionality of the system, two patients diagnosed with AS were recruited at the General Hospital of Mexico (protocol DI/03/17/471). The patients performed a series of spine lateral flexions and anterior hip flexions. In this pilot test, six sensors were placed along the lumbar and thoracic spine (Figure 1). Figure 2 shows differences in the ranges of motion (RoM) across the sensors that were observed in both patients. The bars indicate the full RoM plus the standard deviation.

Image 2



Conclusion: This test indicates the feasibility of carrying out controlled studies in patient populations, using more IMUs units and more movements involving the spine towards the design of a better clinical index.

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PANLAR2021-ABS-1444

PREVALENCE AND DEMOGRAPHIC CHARACTERISTICS OF ANKYLOSING SPONDYLITIS IN COLOMBIA

Diana Rincon-Riaño.

Objectives: Ankylosing spondylitis is a common inflammatory rheumatic disease that affects the axial skeleton, causing characteristic inflammatory back pain and stiffness in the back and waist. Axial spondyloarthritis consists of radiographic and nonradiographic forms. Recent epidemiological studies have shown that the prevalence of AS in the US ranges from 0.2 to 0.55%, in the Southeast Asia Pacific region prevalence was between 0.01% - 0.49%, in Europe the overall prevalence was 0.1–0.9% among Caucasians and the overall in China was 0.3%.

The Colombian health system is one with the highest coverage in Latin America; according to the most recent measurement, carried out in 2019, it reaches 95.1% of the 48 million inhabitants. The Ministry of Health and Social Protection of Colombia developed an information collection and storage tool, called the Comprehensive Social Protection Information System (SISPRO). The Individual Service Provision Registry (RIPS) is defined as the set of minimum and basic data that the General System of Social Security in Health requires for the management, regulation and control processes. Ankylosing spondylitis (AD) is one of the diseases that makes up the group of spondyloarthritis and is characterized by axial involvement that can lead to structural damage to the spine and disability.

Methods: A descriptive epidemiological study using the International Statistical Classification of Diseases and Related Health Problem (CDI), as keywords for Ankylosing spondylitis during the analysis of Integral Information System of Social Protection of the Ministry of Health in accordance with official projections of the National Administrative Department of Statistics (DANE).

Results: The demographic information available in the RIPS of patients diagnosed with AS (M45, M461, M469) was obtained between the years 2012 to 2018. 36.994 cases were identified, which allows calculating a prevalence of 0,08%), of which 71% were women, with a ratio of 2.49: 1 female to male, with a higher prevalence among the age group of 50 and 54 years.

Conclusion: The exact prevalence of ankylosing spondylitis is unknown, and it is difficult to estimate it, because in the last decades different diagnosis and classification criteria have been used. Additionally, it is difficult to conduct this kind of research in LATAM, and scientific published data is general poor and lacking. The findings are important and worth to be shared and communicated.

PANLAR2021-ABS-1359

FACTORS ASSOCIATED WITH INABILITY TO WORK AND DISABILITY IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EMAS STUDY

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Objectives: The aim was to identify factors associated with inability to work and disability among axial spondyloarthritis (axSpA) patients.

Methods: Data from 2,846 unselected patients participating in EMAS, an online survey (2017-2018) across 13 European countries were analyzed. Data are being collected in Argentina, Brasil, Colombia, Costa Rica and Mexico. Sample was divided into those on permanent sick leave or with a recognized disability (Group 1) and those with neither (Group 2). Mann-Whitney and χ^2 tests were used to analyse possible differences between groups regarding sociodemographic characteristics, patient-reported outcomes [BASDAI (0-10), GHQ-12 (0-12), functional limitation (0-54) and spinal stiffness (3-12)], lifestyle habits, working life, and comorbidities). Univariable and multivariable binary logistic regression were used to analyze variables possibly explaining being on permanent sick leave and disability (N = 1,657).

Results: The mean age was 43.9 ± 12.3 years, 61.3% were female, 48.1% had a university degree, and 67.9% were married. Patients in Group 1 (34.4%; n = 978) were more likely to be women (54.3%), married (71.1%), with higher disease activity, functional limitation, spinal stiffness, and longer diagnostic delay than those in Group 2 (n = 1,868). In addition, 88.0% of Group 1 (n = 728)

Table. Regression analysis for variables explaining being on permanent sick leave or disability (n=1,657)

	Univariable logistic analysis		Multivariable logistic analysis	
Qualitative variables	**OR**	**p-value[3]**	**OR**	**p-value[3]**
Gender[1]	1.566	**<0.001**	1.237	0.083
Educational level[2]	1.707	**<0.001**	1.077	0.522
Member of a patient organisation. Yes	1.958	**<0.001**	1.542	**<0.001**
Smoking. Yes	1.278	**0.004**	1.222	0.097
Difficulty finding job due to axSpA throughout life. Yes	3.713	**<0.001**	2.519	**<0.001**
Work choice determined by axSpA. Yes	1.687	**<0.001**	1.383	**0.007**
Anxiety diagnosis. Yes	1.273	**0.005**	0.984	0.920
Depression diagnosis. Yes	1.583	**<0.001**	1.246	0.158
Sleep disorder diagnosis. Yes	1.331	**<0.001**	0.946	0.681
Quantitative factors	**B**	**p-value[4]**	**B**	**p-value[4]**
Age, years	0.036	**<0.001**	0.026	**<0.001**
BASDAI (0-10)	0.168	**<0.001**	0.054	0.137
Functional limitation (0-54)	0.027	**<0.001**	0.011	**0.006**
Spinal stiffness (3-12)	0.219	**<0.001**	0.084	**0.002**
Diagnostic delay	0.014	**0.003**	-0.025	**0.003**
Disease duration	0.038	**<0.001**	0.026	**<0.001**

[1]Male vs Female; [2]No university studies vs university studies. [3]p-value for test H0: OR = 1 [4]p-value for test H0 B = 0

had difficulties in finding a job due to axSpA throughout life; and more than 30.0% reported a diagnosis of anxiety, depression, or sleep disorders. Moreover, Group 1 was associated with higher functional limitation in all daily activities. In the multivariable regression, the qualitative variables associated with Group 1 were: difficulties finding work throughout life (OR = 2.52), belonging to a patient organization (OR = 1.54) and work choice determined by axSpA (OR = 1.39). The quantitative were: higher spinal stiffness (B = 0.084), older age (B = 0.026), longer disease duration (B = 0.026), shorter diagnostic delay (B = -0.025), and higher functional limitation (B = 0.011; see Table).

Conclusion: One third of patients reported being on permanent sick leave or having a recognized disability. They were more likely to have higher spinal stiffness scores, were older in age, experiencing difficulty finding a job, and belonged to a patient organization. Increased efforts in relation to early access to effective treatments and the creation of flexible working environments are essential for axSpA patients to continue working and remain active, which benefits their quality of life.

PANLAR2021-ABS-1422

EVALUATION OF SPINAL RADIOGRAPHIC PROGRESSION IN PATIENTS WITH RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS RECEIVING IXEKIZUMAB THERAPY OVER 2 YEARS

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Objectives: We examined radiographic progression of the spine among patients with active radiographic axial spondyloarthritis (r-axSpA) treated with ixekizumab, an IL-17A antagonist, for 2 years, and potential predictors of spinal radiographic progression.

Methods: Patients with active r-axSpA, biologic-naive (COAST-V, NCT02696785) or with prior experience with a maximum of 2 TNF inhibitors (TNFi) (COAST-W, NCT02696798), received 80 mg ixekizumab every 2 or 4 weeks for 2 years (108 weeks, of which 56 weeks were the COAST-Y extension study, NCT03129100). Mean change from baseline of modified Stoke Ankylosing Spondylitis Spinal Score (mSASSS) (average score from 2 selected readers, blinded for time order) for patients treated with ixekizumab for 2 years with data at both baseline and Year 2 are presented (N = 230; 54% of total randomized patients). Non-progression is presented for all patients and subgroups based on TNFi-experience. Predictors were identified in multivariate logistic regression models with stepwise selection criteria of p-value <0.1. All data are observed.

Results: At baseline, patients (N = 230) were predominately male (82%) with an average age of 43 years, mean symptom duration of 16 years, 52% were TNFi-experienced, mean (SD) ASDAS score was 4.0 (0.7), most were HLA-B27 positive (87%) and 40% had syndesmophytes (identified by both selected readers at the same location). Baseline mSASSS (SD) was 11.0 (16.3) and change from baseline at Year 2 of treatment was 0.3 (1.8) (Table). Proportion of non-progressors (mSASSS change from baseline <2) over 2 years was 89.6% (total IXE [all patients]), 90.9% (biologic-naive) and 88.3% (TNFi-experienced), and, if defined as mSASSS change from baseline ≤0, 75.7% (total IXE [all patients]), 78.2% (biological-naive) and 73.3% (TNFi-experienced) (Table). Predictors of structural progression at Year2 (mSASSS change >0) were age, baseline syndesmophytes, HLA-B27 status, and gender (Table). Week 52 inflammation in MRI SPARCC spine was also identified as a predictor for structural progression at Year 2 in a separate model for patients from COASTV.

Conclusion: The majority of patients treated with ixekizumab for 2 years did not show radiographic progression, and the overall mean progression was low. Similar levels of non-progression were observed in biologic-naive patients and patients previously exposed to TNFis. Predictors were generally consistent with previous studies.

Table. Spinal radiographic changes for patients with active r-axSpA treated with ixekizumab for 2 years

Change in mSASSS at Year 2	All patients[a] N=230	Biologic-naive N=110	TNFi-experienced N=120
Baseline mSASSS, mean (SD)	11.0 (16.3)	10.1 (15.5)	11.7 (17.0)
Change at Year 2, mean (SD)	0.3 (1.8)	0.3 (2.0)	0.4 (1.6)
Change in total mSASSS <2, n (%)	206 (89.6)	100 (90.9)	106 (88.3)
Change in total mSASSS ≤0, n (%)	174 (75.7)	86 (78.2)	88 (73.3)

Multivariable logistic regression model Prediction for change in total mSASSS >0, OR (95% CI), p-value All patients[a,b]	N=228	
Age (≥40 years vs. <40 years)	2.97 (1.41, 6.28)	p=0.004[c]
Baseline syndesmophytes[b] (yes vs. no)	2.31 (1.18, 4.54)	p=0.015[c]
Baseline HLA-B27 (positive vs. negative)	3.78 (1.04, 13.75)	p=0.044[c]
Gender (male vs. female)	3.16 (1.01, 9.86)	p=0.047[c]
Baseline ASDAS state (>3.5 vs. [2.1, 3.5])	2.26 (0.96, 5.34)	p=0.063

[a]Combined ixekizumab group of Q2W and Q4W patients with baseline and year-2 mSASSS data
[b]Identified by both selected readers at the same location (2 patients were not evaluable by both readers)
[c]p<0.05
Abbreviations: ASDAS=Assessment of Disease Activity, CI=confidence interval, IXE=ixekizumab, mSASSS=modified Stoke Ankylosing Spondylitis Spinal Score, OR=odds ratio, Q2W=every 2 weeks, Q4W=every 4 weeks, SD=standard deviation, TNFi=tumor necrosis factor inhibitor

PANLAR2021-ABS-1181

THE BEST CARDIOVASCULAR RISK CALCULATOR TO PREDICT THE PRESENCE OF CAROTID PLAQUE IN PSORIATIC ARTHRITIS PATIENTS

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Objectives: Systemic inflammation in psoriatic arthritis (PsA) patients accelerates the process of atherosclerosis [1]. Carotid ultrasound (US) has the ability of detecting subclinical atherosclerosis, but it is not available to all patients.

The aim of this study was to determine which is the best CV risk (CVR) algorithm to predict the presence of carotid plaque (CP) in PsA patients.

Methods: This was a cross-sectional and observational study. A total of 78 patients aged 40-75 years, who fulfilled the 2006 CASPAR classification criteria for PsA were included. The CVR of each patient was assessed by six different CVR calculators, including: Framingham Risk Score (FRS)-lipids, FRS-body mass index (BMI), American College of Cardiology and American Heart Association (ACC/AHA) Risk Algorithm, Systematic Coronary Risk Evaluation (SCORE),

QRISK3 and Reynolds Risk Score (RRS). A carotid US was performed in all study subjects to identify the presence of CP. A ROC-curve analysis was done to establish the cut-off points of each algorithm to predict the presence of CP, calculating sensitivity, specificity and area under the curve (AUC) to determine the discriminative capacity. A p-value <0.05 was considered statistically significant.

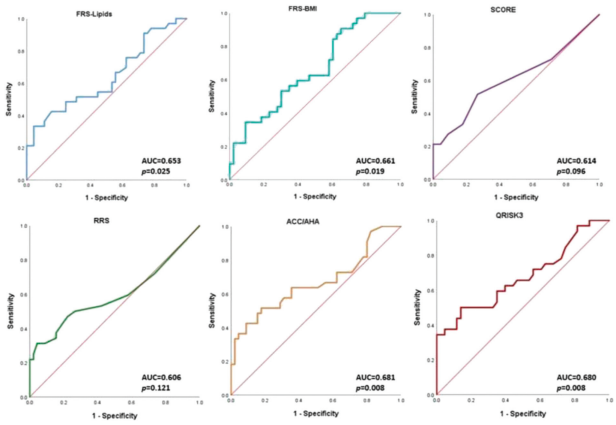
Results: Most patients were women (55.1%) with a mean age of 53.46 (±10.86) years. The prevalence of CP was 42.3%. Four of the six CVR algorithms were able of predicting CP in PsA patients. FRS-lipids showed an AUC 0.653 (0.523-0.783), p = 0.025, a cut-off point ≥11.55, a sensitivity of 51.5% and specificity of 68.9%. FRS-BMI showed an AUC 0.661 (0.536-0.786), p = 0.019, a cut-off point ≥13.8, sensitivity of 59.4% and specificity of 60.5%. ACC/AHA showed an AUC 0.681 (0.551-0.812), p = 0.008, a cut-off point ≥4.8, sensitivity of 63.6% and specificity of 64.4%. QRISK3

Table 1. ROC curve analysis of the cardiovascular risk calculators.

Cardiovascular risk calculators (cut-off points)	AUC	CI 95% Inferior limit	CI 95% Superior limit	*p*	Sensibility	Specificity	Likelihood ratio +	Likelihood ratio -
FRS-lipids (11.55)	0.653	0.523	0.783	**0.025**	51.5%	68.9%	1.66	0.70
FRS-BMI (13.8)	0.661	0.536	0.786	**0.019**	59.4%	60.5%	1.50	0.67
SCORE (1.5)	0.614	0.478	0.750	0.096	-	-		
RRS (3.5)	0.606	0.467	0.745	0.121	-	-		
ACC/AHA (4.8)	0.681	0.551	0.812	**0.008**	63.6%	64.4%	1.79	0.56
QRISK3 (5.15)	0.680	0.551	0.810	**0.008**	62.5%	60.5%	1.58	0.62

AUC, area under the curve; FRS, Framingham Risk Score; BMI, body mass index; RRS, Reynolds Risk Score; ACC/AHA, American College of Cardiology and American Heart Association.

Figure 1. ROC-curve of the six cardiovascular calculators.



showed an AUC 0.680 (0.551-0.810), p = 0.008, a cut-off point ≥5.15, sensitivity of 62.5% and specificity of 60.5% (Table 1, Figure 1).

Conclusion: The best CVR algorithm to predict CP in PsA patients was the ACC/AHA risk score. However, there is a need of lower cut-off points to have the ability of identifying patients classified in the low-moderate risk according to these calculators who would benefit from an opportune treatment of their subclinical atherosclerosis.

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PANLAR2021-ABS-1273

OCULAR FINDINGS IN PATIENTS WITH PSORIASIC ARTHRITIS, RHEUMATOLOGY SERVICE, PADRE BILLINI HOSPITAL

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Objectives: To evaluate ocular findings in patients with psoriasic arthritis at the Rheumatology Service, Padre Billini Hospital.

Methods: Observational, descriptive cross-sectional study. Data were collected from patients with psoriasic arthritis from the rheumatology service of the Padre Billini Hospital from October 2020 to February 2021. All patients>18 years of age, with a diagnosis of psoriasic arthritis according to the 2006 CASPAR classification criteria and in the registry of ophthalmological findings. Data were analyzed with SPSS V23.

Results: 1,346 patients were seen in the outpatient clinic, 45 met the inclusion criteria. 25 female, 20 male, median age 40.7 5 years. 18 patients were on adalimumab, 16 on secukinumab, 5 on golimumab, 4 on etanercept, 1 on ustekinumab and 1 on guselkumab; of these 40 patients were on dual therapy. Average DAPSA of 7.04 2. Five patients presented anterior uveitis, 4 presented epithelial thickening, 7 presented keratitis, 5 with erosions and scars, 25 did not present ocular findings.

Conclusion: In our study we found that 26.6% of the patients presented ocular findings.

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PANLAR2021-ABS-1077

HLA-B27 AND UVEITIS ASSOCIATED WITH SPONDYLOARTHRITIS IN A MULTIDISCIPLINARY AUTOIMMUNE DISEASE UNIT: ARE THESE CLINICAL DIFFERENCES BASED ON HAPLOTYPE?

Cristiana S. Santos.

Objectives: To compare the clinical characteristics of human leucocyte antigen (HLA)-B27+ uveitis patients with SpA diagnosis (New York criteria, ASAS) receiving systemic therapies with HLA-B27 negative uveitis patients.

Methods: We performed a descriptive study by including patients diagnosed with uveitis associated with SpA attending our Multidisciplinary Autoimmune Disease Unit from January 2000 to January 2020 and compared the clinical profile of patients with uveitis related and not related to the antigen HLA-B27.

Results: We included 73 patients, 78% were HLA-B27 positive and 21% were HLA-B27 negative. When comparing the two groups, no differences regarding sex were found. HLA-B27 negative patients were older at diagnosis (43.5 ± 8.9 years) than HLA-B27 positive patients (39.1 ± 11.6 years, p = 0.04). Regarding articular involvement, peripherical involvement was more frequent in HLA-B27 negative patients (44%) than in HLA-B27 positive patients (13%, p = 0.01) however, there was no difference regarding axial involvement or axial and peripherical involvement. Uveitis preceded the articular involvement in 75% HLA-B27 negative patients and in 44% HLA-B27 positive (p = 0.047). The time since first uveitis flare was longer in the HLA B27 positive group: 9.12 years (2.75-12.8) versus 3.56 years (1.34-3.5) in the HLA B27 negative group (p 0.02). HLA-B27 positive patients showed a higher percentage of bilateral/alternating involvement (61.4%) as compared with the HLA-B27 negative patients (31.2%, p = 0.046). Mean recurrence of episodes of uveitis was 3.1 ± 1.78 years in HLA-B27 positive patients and 2.1 ± 1.74 years in HLA-B27 negative, with no significant difference between the two groups (p = 0.90). Initial treatment with immunosuppressors was implemented in 82% of the HLA-B27 positive patients vs 87.5% of HLA-B27 negative patients (p = 1) and with biologic disease-modifying agents (bDMARDs) in 28% of HLA-B27 positive patients vs 12.5% of HLA-B27 negative patients, with no significant differences in the number of patients that required systemic treatment (p = 0.33).

Conclusion: Uveitis in HLA-B27 positive patients presents at a young age and shows a high percentage of bilateral/alternating uveitis involvement and a long period since first uveitis flare. Uveitis onset preceded articular manifestations more frequently in HLA-B27 negative patients. There were no differences between both groups in sex, systemic treatment and mean recurrence of episodes.

PANLAR2021-ABS-1214

CORRELATION OF ATHEROGENIC INDEX OF PLASMA WITH CAROTID INTIMA-MEDIA THICKNESS IN PSORIATIC ARTHRITIS PATIENTS

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Objectives: Psoriatic arthritis (PsA) patients are at increased risk for clinical and subclinical CVD, due to accelerated atherosclerosis[1]. The atherogenic index of plasma (AIP) is the logarithmically transformed ratio of triglycerides and highdensity lipoprotein cholesterol (HDL-C) that has been implemented as a robust biomarker to prognosticate atherogenicity and cardiovascular disease (CVD) events[2]. It has been demonstrated that an increased carotid intima-media thickness (cIMT) is significantly associated with a higher risk of stroke, coronary

heart disease, or a combination of these in the general population[3]. The aim of the study is to report the correlation between AIP and cIMT in patients with PsA.

Methods: Cross-sectional and observational study. A total of seventy-eight patients from 30 to 80 years of age, who fulfilled the 2006 international Classification of Psoriatic Arthritis criteria (CASPAR) were included. Those with a previous history of atherosclerotic CVD (myocardial infarction, stroke, or peripheral artery disease), diagnosis of any other connective tissue disease, chronic kidney disease, overlap syndrome, and pregnancy were excluded. A high-resolution B mode carotid US was performed in all study subjects by a certified radiologist. cIMT was measured at both common carotid arteries and mean cIMT was calculated. A blood sample was obtained to measure high density lipoprotein cholesterol (HDL-c) and triglyceride (TG). The AIP was calculated by using logarithm with base 10 of ratio TG to HDL-c. Distribution was evaluated with the Kolmogorov-Smirnov test. Correlations between numerical variables were done using Spearman's rho, considering two-tailed p-values <0.05 as statistically significant.

Results: There were 43 female patients (55.1%) and 35 male patients (44.9%); they had a mean age of 53 ± 11.1 years and a median disease duration of 5 years (3-8). Concerning traditional cardiovascular risk factors, 37.2% of the patients had hypertension, 43.6% had dyslipidemia, 20.5% had diabetes mellitus and 21.8% were active smokers. A significant correlation was found between cIMT and AIP (rho = 0.224, p = 0.048). Demographic and clinical characteristics are shown in Table 1.

Table 1. Demographic and clinical characteristics

	PsA patients (n=78)
Age, years ± SD	53 ± 11.1
Women, n (%)	43 (55.1)
BMI ± SD	29.5 ± 5.4
Active smoking, n (%)	17 (21.8)
Diabetes mellitus, n (%)	16 (20.5)
Hypertension, n (%)	29 (37.2)
Dyslipidemia, n (%)	34 (43.6)
Obesity, n (%)	32 (41)
Disease duration, years (p25-p75)	5.0(3.0-8.5)
DAPSA ± SD	15.50 ± 13.08
cIMT, (p25-p75)	0.67 (0.54-1.02)
AIP ± SD	0.50 ± 0.30
DMARD, n (%)	64 (82.1)
Glucocorticoids, n (%)	10 (12.8)

PsA, psoriatic arthritis; SD, standard deviation; BMI, body mass index; DAPSA, Disease Activity in Psoriatic Arthritis; cIMT, Carotid intima-media thickness; AIP, atherogenic index of plasma; DMARD, disease modifying antirheumatic drugs.

Conclusion: AIP was associated with increased cIMT in patients with PsA. The calculation of AIP in PsA patients could guide us to identify patients who present a higher cardiovascular risk, and once identified, be able to perform a carotid ultrasound to detect subclinical atherosclerosis.

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PANLAR2021-ABS-1078

CORRELATION BETWEEN SKIN AND JOINT INVOLVEMENT IN PATIENTS WITH PSORIATIC ARTHRITIS

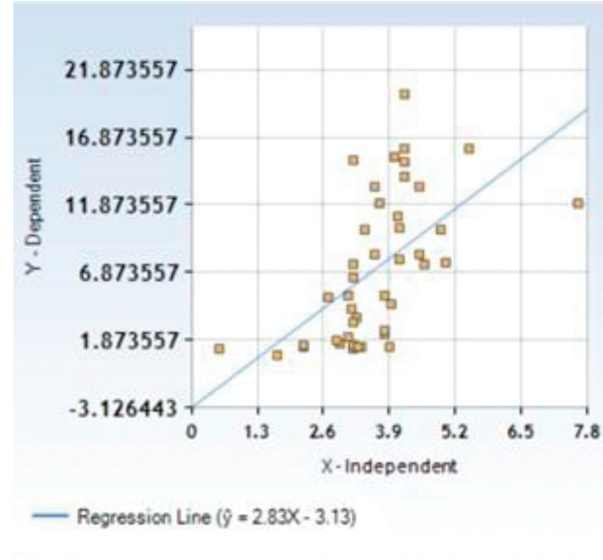
Cristiana S. Santos.

Objectives: To characterize the relationship between skin and joint activity in patients with psoriatic arthritis (PsA) and psoriasis (PsO) at enrolment.

Methods: We performed a descriptive study including patients diagnosed with PsA with a history of PsO. Age, sex, disease onset and duration, pattern of PsA and PsO, sites of skin and joint involvement were collected.

PsA patients were evaluated at enrolment for skin activity by Psoriasis Area and Severity Index (PASI), joint activity by Disease Activity Score 28 (DAS28) for peripheral arthritis and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) for axial involvement. A PASI>10% was used to define moderate-severe psoriasis (MS-P). We compared clinical characteristics of patients with PsA based on PASI score and evaluated the relationship of skin and joint activity with linear regression.

Results: A total of 50 patients were studied, 64% were women with a mean age of 57.4 ± 11.9 years. Patients with MS-P had a long-standing history of PsO (16.6 ± 7.9 vs 14.15 ± 8.2 years, p 0.03) and arthritis (12.2 ± 7.6 vs 10.6 ± 7.6 years, p 0.05). PsO was diagnosed more frequently before arthritis in the group of MS-P (73% vs 42%, p 0.03). Nail (73% vs 34%, OR 4.27 (1.38-20.14), p 0.015) and hairline psoriasis (67% vs 29%, OR 5 (1.36-18.35), p 0.03) were more frequent in the group of MS-P. Polyarthritis was the most common clinical pattern (60% vs 26%, p 0.02) and peripheral arthritis, in shoulder, elbows and wrists was more associated to patients with MS-P. No significant difference regarding sex, age, arthritis onset, dactylitis, enthesitis or HLA-B27 was found. Patients with MS-P had a higher joint activity for peripheral arthritis (4.1 vs 2.44, p 0.02). The correlation between the skin and joint activity was positive and statistically significant r = 0.568 (p 0.02), (Figure 1 below).



Conclusions: Patients with PsA with MS-P presented nail and hairline psoriasis, polyarthritis, and peripheral joint involvement more often. Cutaneous disease activity correlated with joint activity. Collaboration between dermatologists and rheumatologists is recommended for a proper assessment of patients with psoriatic arthritis with skin involvement.

PANLAR2021-ABS-1156

FATIGUE IN PSORIATIC ARTHRITIS (PSA): PREVALENCE IN PATIENTS FROM THE US AND EUROPE, AND IMPACT ON QUALITY OF LIFE AND WORK PRODUCTIVITY

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Objectives: Fatigue is an important aspect of PsA for patients. Understanding the impact of fatigue on patient reported outcomes is important for effective management of PsA. The objective of this study was to compare clinical and patient reported outcomes in patients who report fatigue and those who do not, and to describe the prevalence of fatigue in PsA patients from the physician and patient perspective.

Methods: Cross-sectional study among patients with PsA recruited by rheumatologists and dermatologists in France, Germany, Italy, Spain, UK, and US. Data were collected from Jun-Aug 2018 via physician-completed patient record forms and patient self-completed forms. Physicians reported patient demographic and

disease characteristics, and if patients experienced fatigue (yes/no). Patients also reported fatigue via PsAID12 domain scale (0-10 score, grouped for analysis as 0, 1-3, 4-7, >7), quality of life (EQ5D-5 L), work productivity (WPAI), and disability (HAQ-DI). Patients were compared according to grouped fatigue scores using parametric tests and non-parametric tests. Multiple linear regression analyses examined impact of incremental PsAID12 fatigue score on patient reported outcomes (PROs) (EQ5D, HAQ-DI, PsAID12, WPAI). Models controlled for gender, age, BMI, body surface area psoriasis percent, number of joints affected, pain, and Charlson Comorbidity Index score. Regressions were run on patients for whom all variables were available.

Results: Data were collected from 932 physician-patient pairs. Regression analyses showed that patients with increasingly severe fatigue scores reported worse outcomes in terms of quality of life, work impairment, and disability than those with lower fatigue scores. Physicians reported fatigue in 27.5% of patients, while 80.7% of patients reported they experienced fatigue. 44.9% of physician-patient pairs agreed on fatigue presence or absence. See Tables 1 and 2.

Table 1: Demographic and clinical characteristics by patient reported PsAID12 fatigue score

	PsAID12 fatigue score				
	0 (n=180)	1-3 (n=445)	4-7 (n=142)	>7 (n=64)	P value
Demographic characteristics					
Age, mean (SD)	45.3 (13.0)	46.5 (13.7)	51.2 (12.6)	52.5 (12.2)	**<0.01**
Female, n (%)	62 (34.4)	213 (47.9)	78 (54.9)	37 (57.8)	**<0.01**
BMI, mean (SD)	26.8 (5.4)	26.4 (4.8)	27.1 (4.7)	26.9 (4.7)	0.53
Caucasian, n (%)	167 (92.8)	412 (92.6)	130 (91.6)	59 (92.2)	0.23
Working full time, n (%)	125 (71.0)	280 (64.2)	61 (43.6)	23 (38.3)	**<0.01**
Biologic tx, n (%)	91 (50.6)	196 (44.0)	76 (53.5)	37 (57.8)	0.06
Disease characteristics					
Years since diagnosis, mean (SD)	4.8 (2.3)	4.5 (2.2)	6.9 (4.1)	8.0 (5.6)	**<0.01**
Current severity (provider-assessed), n (%) -Mild -Moderate -Severe	171 (95.0) 9 (5.0) 0 (0.0)	350 (78.7) 89 (20.0) 6 (1.4)	76 (53.5) 59 (41.5) 7 (4.9)	26 (40.6) 32 (50.0) 6 (9.4)	**<0.01**
Current BSA %, mean (SD)	2.2 (3.7)	6.2 (7.7)	9.2 (10.2)	7.6 (10.8)	**<0.01**
*66 swollen joint count, mean (SD)	0.6 (1.8)	2.3 (3.9)	7.1 (11.3)	4.2 (4.8)	**<0.01**
*68 tender joint count, mean (SD)	1.1 (3.2)	2.8 (3.5)	7.6 (7.8)	6.2 (4.3)	**<0.01**

Conclusions: After adjusting for demographic and clinical factors, patients with severe fatigue were found to have worse clinical, quality of life, work productivity, and disability outcomes than those with mild or no fatigue. Differences between patient and physician reports of fatigue suggest that physicians may not be aware of the extent to which patients experience fatigue.

Table 2: Incremental impact of PsAID12 fatigue score on PROs

	PsAID12 fatigue score	Change in predicted PRO values	P value
EQ5D utility (n=650)	0 (ref)	0.95	
	1-3	-0.07	**<0.01**
	4-7	-0.18	**<0.01**
	>7-10	-0.33	**<0.01**
EQ5D VAS (n=660)	0 (ref)	87.35	
	1-3	-6.04	**<0.01**
	4-7	-18.28	**<0.01**
	>7-10	-24.08	**<0.01**
WPAI % overall work impairment (n=354)	0 (ref)	9.06	
	1-3	+5.17	**0.04**
	4-7	+17.23	**<0.01**
	>7-10	+18.89	**<0.01**
HAQ-DI (n=648)	0 (ref)	0.46	
	1-3	+0.14	**<0.01**
	4-7	+0.46	**<0.01**
	>7-10	+0.96	**<0.01**
PsAID12 (n=652)	0 (ref)	2.36	
	1-3	+1.10	**<0.01**
	4-7	+3.47	**<0.01**
	>7-10	+5.08	**<0.01**

[a] PRO key for worse outcome (range): EQ5D utility (0-1.0) = lower; EQ5D VAS (1-100) = lower; WPAI (0-100) = higher; HAQ-DI (0-3) = higher; PsAID12 (0-10) = higher

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HIGHER PREVALENCE OF SUBCLINICAL ATHEROSCLEROSIS IN HISPANIC PSORIATIC ARTHRITIS PATIENTS

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Objectives: Psoriatic arthritis (PsA) patients have a higher risk of developing a cardiovascular (CV) event than the general population due to an increased prevalence of traditional CV risk factors and to disease characteristics such as disease duration and activity [1]. The carotid ultrasound (US) is a non-invasive diagnostic tool that can detect the presence of subclinical atherosclerosis which is directly associated with the risk of developing a CV event.

The aim of this study is to compare the prevalence of subclinical atherosclerosis detected by carotid US in Hispanic PsA patients and controls.

Methods: This was a cross-sectional, observational, and comparative study. A total of 75 Hispanic PsA patients aged 40- 75 years of age, who fulfilled the 2006 CASPAR criteria and 75 matched controls by age (±5 years), gender and comorbidities were recruited for this study. Patients with history of a previous CV event and pregnant women were excluded from this study. A high-resolution B mode carotid US was performed in all study subjects by a certified radiologist. Subclinical atherosclerosis was defined as the presence of a carotid plaque (CP) or an increased carotid intima media thickness (cIMT). The presence of CP was defined as a cIMT ≥1.2 mm or a focal narrowing ≥0.5 mm in the surrounding lumen. An increased cIMT was considered as a value ≥0.8 mm. Distribution was evaluated with the Kolmogorov-Smirnov test. Comparisons were done with χ^2 test for qualitative variables and Student´s t test and Mann Whitney's U test for quantitative variables. A p-value <0.05 was considered statistically significant.

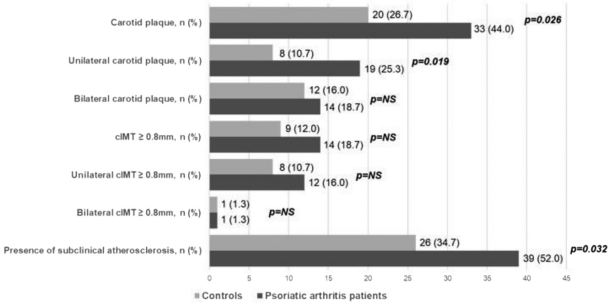
Results: There was no difference when comparing the demographic characteristics between both groups (Table 1). When comparing the carotid US findings, a difference was found in the prevalence of CP, which was higher in the PsA group (44.0% vs 26.7%, p = 0.026), in the presence of unilateral CP (25.3% vs 10.7%, p = 0.019) and in the presence of subclinical atherosclerosis (52.0% vs 34.7%, p = 0.032) (Figure 1).

Table 1. Demographic and clinical characteristics of psoriatic arthritis patients and controls.

	PsA (n=75)	Controls (n=75)	*p*
Age years, mean ± DE	53.89 ± 10.59	54.25 ± 7.08	NS
Female gender, n (%)	43 (57.3)	43 (57.3)	NS
T2DM, n (%)	16 (21.3)	15 (20.0)	NS
HTN, n (%)	28 (37.3)	21 (28.0)	NS
Dyslipidemia, n (%)	33 (44.0)	28 (37.3)	NS
Obesity, n (%)	31 (41.3)	32 (42.7)	NS
Active smoking, n (%)	14 (18.7)	18 (24.0)	NS
BMI kg/m², median (p25-p75)	29.32 (26.23-32.03)	28.9 (25.4-33.5)	NS
Disease duration years, median (p25-p75)	5.0 (3.0-10.0)	-	-
DAPSA, median (p25-p75)	12.6 (5.3-22.9)	-	-
Glucocorticoids, n (%)	10 (13.3)	-	-
MTX, n (%)	51 (68.0)	-	-
bDMARD, n (%)	28 (37.3)	-	-

PsA, psoriatic arthritis; NS, not significant; T2DM, type 2 diabetes mellitus; HTN, hypertension; BMI, body mass index; DAPSA, disease activity for psoriatic arthritis; MTX, methotrexate; bDMARD, biological disease modifying antirheumatic drug.

Figure 1. Carotid ultrasound findings in psoriatic arthritis patients and controls.



Conclusions: The prevalence of subclinical atherosclerosis was higher in PsA patients than controls, and this could be attributed to an increase in the inflammatory burden of these patients. The carotid US should be considered as part of the CV evaluation in all PsA patients, identifying those who would benefit from an opportune treatment preventing the development of a CV event.

Reference:

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PSORIATIC ARTHRITIS PATIENTS WITH NAIL INVOLVEMENT HAVE HIGHER PREVALENCE OF CAROTID PLAQUE

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Objectives: Psoriatic Arthritis (PsA) is an inflammatory musculoskeletal disease associated with psoriasis. Almost 80% of the patients with PsA are afflicted with nail lesions[1]. The risk of developing cardiovascular events in PsA patients is higher than in the general population[2]. However, the prevalence of carotid plaque using carotid ultrasound in PsA patients with nail involvement has not yet been well described. We aimed to determine if nail involvement in PsA patients is associated with a higher prevalence of carotid plaque using carotid ultrasound.

Methods: This was a cross-sectional, observational, and comparative study. A total of sixty-six patients aged 40-75 years of age, who fulfilled the 2006 CASPAR (Classification Criteria for Psoriatic Arthritis) were included in this study. They were divided into two groups according to the presence of nail involvement and matched by age, gender and comorbidities. Patients with a history of previous atherosclerotic cardiovascular disease (ischemic heart disease, cerebrovascular accident or peripheral arterial disease) and pregnancy were excluded. A carotid B-mode ultrasound was performed in all study subjects, subclinical atherosclerosis was evaluated as the presence of carotid plaque (CP) or an increased intima media thickness (cIMT). CP was defined as a cIMT≥1.2 mm or a focal narrowing ≥0.5 mm of the surrounding lumen, and an increased cIMT was defined as a value ≥0.8 mm. Comparisons were done with X^2 and Mann-Whitney's U test.

Table 1. Comparison of demographic characteristics and carotid ultrasound findings between PsA patients with nail involvement and matched PsA patients without nail involvement.

	Nail involvement (n=33)	Without nail involvement (n=33)	p
Age, years ± SD	54.4 ± 11.0	52.0 ± 10.2	NS
Female, n (%)	16 (48.5)	21 (63.6)	NS
DM, n (%)	6 (18.2)	6 (18.2)	NS
Hypertension, n (%)	10 (30.3)	13 (39.4)	NS
Dyslipidemia, n (%)	15 (45.5)	12(36.4)	NS
Obesity, n (%)	14 (42.4)	14 (42.4)	NS
Active smoking, n (%)	10 (30.3)	7 (21.2)	NS
BMI, kg/m^2 (p25-p75)	29.0 (27.2-34.8)	29.4 (25.4-31.2)	NS
Disease duration, years (p25-p75)	6 (3.5-10)	4 (2-6.5)	NS
DAPSA, median (p25-p75)	12.9 (6.6-27.5)	12.8 (4.7-19.6)	NS
Glucocorticoids, n (%)	6 (18.2)	3 (9.1)	NS
Methotrexate, n (%)	21 (63.6)	25 (75.8)	NS
Biologics, n (%)	6 (18.2)	12 (26.4)	NS
Carotid ultrasound findings			
Any carotid plaque, n (%)	16 (48.5)	8 (24.2)	**0.041**
Increased cIMT, n (%)	5 (15.2)	4 (12.1)	NS
Right cIMT, mm (p25-p75)	0.73 (0.55-1.20)	0.59 (0.46-0.84)	**0.035**
Left cIMT, mm (p25-p75)	0.69 (0.57-1.20)	0.58 (0.49-0.74)	**0.029**
Presence of subclinical atherosclerosis n (%)	18 (54.4)	11 (33.3)	NS

NS, non-significant; DM, diabetes mellitus ; BMI, body mass index; DAPSA, disease activity score for psoriatic arthritis; cIMT, carotid intima-media thickness.

Results: Clinical and demographic characteristics are shown in Table 1. Carotid plaque was significantly more prevalent in PsA patients with nail involvement (48.5% vs 24.2%, p = 0.041). A binary logistic regression was performed, which demonstrated that nail involvement is an independent risk factor for the presence of CP with an OR 3.53 (95% CI: 1.0611.71) (p = 0.039).

Conclusion: This study shows that patients with PsA and nail involvement have a higher prevalence of CP. Therefore, it is necessary to perform a carotid ultrasound in PsA patients with nail involvement to attain an optimal management of the disease. Rheumatologists must acknowledge the importance of performing a complete cardiovascular evaluation in these patients.

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PRESENCE AND ASSOCIATED FACTORS OF FATIGUE IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS)

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Objectives: The aim is to assess the prevalence of fatigue and associated factors in axial spondyloarthritis (axSpA) patients.

Methods: Data from 2,846 unselected patients of the European Map of Axial Spondyloarthritis (EMAS) through an online survey (2017-2018) across 13 European countries were analyzed. Data are being collected in Argentina, Brasil, Colombia, Costa Rica and Mexico. The presence of fatigue/tiredness was evaluated using the Visual Analogue Scale from the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI): "How would you describe the overall level of fatigue/tiredness you have experienced? (0-10)". Risk of poor mental health was assessed using the 12-Item General Health Questionnaire (GHQ-12; 0-12). Possible associated factors included: Socio-demographic and disease characteristics, disease activity and function and mental health disorders.

The Mann-Whitney test was used to compare the means of variables of two categories vs. the numerical variables, the $\chi 2$ test was used to compare the distribution between the categorical variables. Binary logistic regression and multiple linear regression were used to identify possible predictors.

Results: A total of 2,846 axSpA patients participated in the EMAS survey: mean age was 43.9 years, 61.3% female, 48.1% had a university degree, 67.9% were married and 71.3% were HLAB27 positive. Fatigue/tiredness was associated with younger age (6.4 ± 2.3 vs 5.5 ± 2.4), being female (6.6 ± 2.2 vs 5.7 ± 2.4), lower educational level (6.9 ± 2.4 vs 6.0 ± 2.0) and separation/divorce (6.8 ± 2.2 vs 6.2 ± 2.3; all p < 0.001). Those reporting work impact (6.8 ± 2.1 vs 5.8 ± 2.4), physical inactivity (6.9 ± 2.2 vs 6.1 ± 2.3), sleep disorders (7.0 ± 2.0 vs 5.8 ± 2.4), anxiety (7.0 ± 2.0 vs 5.9 ± 2.4) or depression (7.2 ± 1.9 vs 5.9 ± 2.4; all p < 0.001) also presented greater fatigue, as did those

with higher morning stiffness (r = 0.499), functional limitation (r = 0.257), and poorer mental health GHQ-12 (r = 0.419). Finally, the variables independently associated with fatigue were female gender (B = 0.427), being physical inactive (B = -0.395) and those with greater morning stiffness severity (B = 0.349; see Table). In addition, those on temporary and permanent sick leave, along with the unemployed, presented greater fatigue (7.1, 6.8 and 7.1 respectively).

Table. Linear regression analysis to predict presence of fatigue/tiredness (N = 2052)

	Simple			Multivariate		
	B	95% CI	p-value	B	95% CI	p-value
Age	-0.018	-0.025, -0.011	**<0.001***	-0.015	-0.022, -0.008	**<0.001**
Gender (female)	0.838	0.659, 1.017	**<0.001***	0.427	0.264, 0.590	**<0.001**
Marital status (married)	0.190	0.042, 0.339	**0.012***	0.162	0.021, 0.302	**0.024***
Educational level (university)	-0.274	-0.402, -0.146	**<0.001***	-0.128	-0.245, -0.012	**0.031***
BMI (Overweight/Obesity)	0.151	-0.026, 0.328	0.094	NA	NA	NA
Morning stiffness severity (0-10) *	0.473	0.442, 0.505	**<0.001***	0.349	0.314, 0.385	**<0.001***
Functional limitation (0-54)	0.038	0.032, 0.044	**<0.001***	0.014	0.008, 0.019	**<0.001***
Reported Work impact (yes)	0.936	0.753, 1.119	**<0.001***	0.228	0.068, 0.389	**0.005***
Physical activity (yes)	-0.726	-0.968, -0.485	**<0.001***	-0.395	-0.611, -0.178	**<0.001***
Sleep disorder (yes)	1.191	1.013, 1.368	**<0.001***	0.276	0.095, 0.458	**0.003***
Anxiety (yes)	1.139	0.950, 1.327	**<0.001***	0.002	-0.215, 0.220	0.982
Depression (yes)	1.274	1.079, 1.469	**<0.001***	0.223	0.001, 0.446	**0.049***
GHQ-12 (0-12) **	0.234	0.215, 0.254	**<0.001**	0.110	0.088, 0.132	**<0.001***

*As measured by the respective item of the BASDAI scale
**12-item General Health Questionnaire. A value of 3 or above indicates a risk of poor mental health

Conclusion: Fatigue/tiredness was highly prevalent among axSpA European patients with female gender, engage in physical activity and those with greater morning stiffness severity most strongly associated, and the unemployed presenting greatest fatigue.

PANLAR2021-ABS-1353

FACTORS ASSOCIATED WITH PAIN INTENSITY IN AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS)

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Objectives: The aim of this study is to investigate factors associated with pain intensity in axial spondyloarthritis (axSpA).

Methods: 2,846 unselected patients participated in EMAS, an online survey (2017-2018) across 13 European countries. Data are being collected in Argentina, Brasil, Colombia, Costa Rica and Mexico. Data from 2,636 participants who reported pain were examined. Pain was measured by the mean of two BASDAI questions (range 0 "no pain" to 10 "most severe pain"): "How would you describe the overall level of AS neck, back or hip pain you have had?" and "How would you describe the overall level of pain/swelling in joints other than neck, back, hips you have had?". Linear regression analysis was applied to identify associations between pain intensity and sociodemographic factors, patient-reported outcomes [BASDAI (0-10), spinal stiffness (3-12), functional limitation (0-54), mental health using the 12-item General Health Questionnaire GHQ-12 (0-12)], work life, physical activity and comorbidities (N = 850).

Results: Mean age was 44 years, 61.4% were female, and 49.4% had a university degree. The average reported pain intensity was 5.3 (±2.2) with the greatest intensity reported by women (5.5 vs 4.9, $p < 0.001$), those not university educated (5.6 vs 5.0, $p < 0.001$), separated/divorced vs singles (5.8 vs 5.2, $p = 0.004$), and physically inactive (5.7 vs 5.2, $p < 0.001$). In addition, employed patients who experienced work-related issues reported greater pain (5.2 vs 3.9) as did those who experienced/believed they would face difficulties finding work due to axSpA (5.9 vs 4.3), and those whose employment choice was determined by axSpA (5.7 vs 4.9; all $p < 0.001$). Associations with anxiety (5.9 vs 5.0), depression (6.1 vs 5.0) and sleep disorders (5.9 vs 4.9; all $p < 0.001$) were also found. The multiple linear regression model showed that those with higher pain intensity reported at least one work-related issue (B = 0.65), difficulties finding work due to axSpA (B = 0.48), not having attended university (B = 0.38), greater spinal stiffness (B = 0.29), being female (B = 0.26) and poorer mental health (GHQ-12; B = 0.10; see Table).

Table. Regression analysis of the association of pain intensity (0-10 NRS) with demographic, socioeconomic and axSpA-related factors (N = 850)

	Univariable		Multivariable	
	B	95% CI	B	95% CI
Gender. Female[1]	0.604	**0.432, 0.775**	0.260	**0.003, 0.517**
Educational level. No University[2]	0.671	**0.504, 0.838**	0.376	**0.118,0.634**
Marital Status. Divorced/Separated[3]	0.495	**0.209, 0.780**	-0.044	-0.468, 0.380
Body Mass Index. Obese[4]	0.362	-0.097, 0.821	NA	NA
GHQ-12 (0-12)	0.182	**0.163, 0.201**	0.100	**0.064, 0.137**
Functional Limitation (0-54)	0.036	**0.030, 0.041**	0.009	-0.001, 0.018
Spinal Stiffness (3-12)	0.357	**0.326, 0.388**	0.288	**0.234, 0.342**
Diagnostic Delay, years	0.020	**0.010, 0.030**	-0.015	-0.032, 0.002
Work-Related Issues. Yes	1.338	**1.095, 1.582**	0.654	**0.338, 0.970**
Difficulty finding job due to axSpA. Yes	1.568	**1.362, 1.774**	0.476	**0.176, 0.776**
Work choice determinate by axSpA. Yes	0.808	**0.633, 0.983**	0.199	-0.069, 0.467
Physical activity. No	0.494	**0.263, 0.725**	-0.128	-0.497, 0.242
Anxiety diagnosis. Yes	0.935	**0.753, 1.117**	-0.047	-0.416, 0.321
Depression diagnosis. Yes	1.107	**0.919, 1.295**	0.115	-0.270, 0.500
Sleep disorder diagnosis. Yes	1.042	**0.871, 1.213**	-0.091	-0.392, 0.211

[1]Female vs Male; [2]No university studies (no schooling, primary and high school) vs University studies; [3]Divorced/separated vs single, married and widow; [4]Obese vs not obese (underweight, normal and overweight).

Conclusions: Pain was most strongly associated with working life impairment, as well as with spinal stiffness. Pain was also associated with suffering from depression, anxiety and sleep disorders. Understanding how pain affects individuals and shared decision making between rheumatologists and patients are essential for long-term disease management and preserving the quality of life of axSpA patients.

PANLAR2021-ABS-1309

BIOBADAGUAY: CURRENT REGISTRY STATUS

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Objectives: To update information on the safety, treatments and characteristics of the patients included in the registry. BIOBADAGUAY is the Paraguayan-Uruguayan registry of adverse events (AE) in patients diagnosed with rheumatic diseases under treatment with biologic therapies (BT). This project is endorsed by the Paraguayan Society of Rheumatology and the Uruguayan Society of Rheumatology.

Methods: The registry involves 9 centers in Uruguay and 9 centers in Paraguay. The registry data were analyzed from its start in 2008, until the end of 2019; the characteristics of the patients, treatments, causes of switch and/or discontinuation of BT, and the occurrence of AE were studied. All data were monitored online to safeguard their quality. For the descriptive analysis, the R Core Team (2017) software was used.

Results: 838 patients under BT treatment were registered, 72% were women, with a mean age at the beginning of BT of 41.9 ± 17.6 years, and duration of the disease at the beginning of BT of 8.0 years. The most common diagnosis was rheumatoid arthritis (RA) in 61% (510) of patients, followed by juvenile idiopathic arthritis (JIA) in 12% (101), ankylosing spondylitis (AS) in 11% (96) and psoriatic arthritis (PSA) in 7% (58).

According to the Charlson Comorbidity Index, 94% of the patients did not present any comorbidity.

1019 treatment cycles were administered, which are shown in Table 1, with Adalimumab being the most frequent BT administered in 50.2% (512). Methotrexate was the most frequently used concomitant drug in 75% (715) of the treatment cycles alone or in combination with other drugs. From the total of 10,191

treatments, 35.3% (360) were discontinued, the most frequent cause of discontinuation being ineffectiveness in 36.4% (131), followed by AE in 28.3% (102). 695 AE were registered: 83.6% (575) mild and 17.4% severe (121). The most frequently observed AE were infections in 30.3% (211), most of them were mild (82%).

Tabla 1. Biologic therapies and concomitants

	Drug	Total treatments	Cycles of treatment n (%)	Concomitant treatment				
				Corticosteroids (%)	MTX n (%)	LF n (%)	HCQ n (%)	SSZ n(%)
Biologic therapy 1st Option	ADM	1824	465 (55.4%)	226 (49%)	339 (73%)	142 (31%)	93 820%)	24 (5%)
	ETN	604	197 (23.5%)	121 (61%)	163 (83%)	74 (38%)	37 (19%)	11(6%)
	TCZ	240	78 (9.3%)	57 (73%)	54 (69%)	40 (51%)	29 (37%)	0
	RTX	62	61 (7.3%)	35 (57%)	24 (39%)	14 (235)	16 (26%)	7 (11%)
	otros	77	38 (4.5%)	21 (55%)	25 (66%)	11 (29%)	7 (18%)	6 (16%)
Biologic therapy 2nd Option	ADM	115	38 (25.9%)	18 (47%)	22 (58%)	9 /24%)	1 (3%)	1 (3%)
	ETN	115	37 (25.2%)	13 (35%)	26 (70%)	10 (27%)	5 (14%)	2 (5%)
	TCZ	118	33 8 (22,4%)	23 (70%)	21 (64%)	12 (36%)	9 (27%)	1 (3%)
	RTX	83	26 (17.7%)	18 (69%)	19 (73%)	6 (23%)	5 (19%)	0
	Otros	33	13 (8.8%)	6 (46%)	4 (31%)	1 (8%)	1 (8%)	1 (8%)
Biologic therapy 3rd Option	ADM	15	7 (28%)	3 (43%)	4 (57%)	0	1 (17%)	0
	ETN	17	6 (24%)	1 (17%)	3(50%)	2 (34%)	1 (17%)	0
	RTX	20	6 (24%)	5(83%)	3 (50%)	3 (33%)	1 (17%)	1 (17%)
	Otros	12	6 (24%)	3 (50%)	4 (67%)	0	0	0
Posterior biologic therapy **		36	8 (100%)	4 (50%)	2 (25%)	2 (25%)	0	1 (13%)
Total of biologics		3371	1019	552 (54%)	715 (70%)	325 (32%)	206 (20%)	55 (5%)
	ADM		513 (50.3%)					
	ETN		229 (23.5%)					
	TCZ		115 (11.3%)					
	RTX		96 (9.4%)					
	Others***		56 (5.5%)					

*ADM: adalimumab, ETN: etanercept, TCZ: tocilizumab, RTX: rituximab, MTX: methotrexate, LF: leflunomide, HCQ: hydroxichloroquine, SLZ: sulfasalazine, ** 2 ADM, 2 RTX, 2 TCZ , 1 ETN, *** infliximab, infliximab biosimilar (Remzima), secukinimab, golimumab, abatacept*

Conclusion: Current data are similar to those of other regional registries and to those obtained in the previous analysis of the registry.

PANLAR2021-ABS-1343

HEALTH IMPACT OF OVERWEIGHT AND OBESITY IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS)

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Objectives: To evaluate the association between Body Mass Index (BMI) categories and sociodemographic, disease-characteristics and patient-reported outcomes (PROs) in a large sample of axSpA patients.

Methods: Data from 2,846 unselected patients of the European Map of Axial Spondyloarthritis (EMAS) through an online survey (2017-2018) across 13 European countries were analyzed. Data is being collected for Argentina, Brasil, Colombia, Costa Rica and Mexico. Using self-reported height and weight patients were classified into under and normal weight (<24.9 Kg/m2), overweight (25.0-29.9Kg/m2) or obese (>30.0Kg/m2) following WHO guidelines. The Kruskal-Wallis test was used to compare the means of numerical variables between polytomous variables, $\chi 2$ test was used to compare the distribution between the categorical variables. Simple and multivariate logistic regression were used to identify possible associated factors.

Results: A total 2,846 axSpA patients participated in the EMAS survey: mean age was 43.9 years, 61.3% female, 48.1% had a university degree, 67.9% were married and 71.3% were HLA-B27 positive. The percentage of patients with obesity was 18.7%, overweight 33.5%, normal weight 44.0% and underweight 3.8% with an accumulate prevalence of overweight/obesity of 52.2% (compared to 51.6 % of the EU's population[1]). Those with obesity engaged less frequently in sports (50.1% vs 33.3%; $p < 0.001$) and in intimate relationships since disease onset (36.5% vs 20.4%; $p < 0.001$), had higher functional limitations when tying shoelaces (46.8% vs 33.6%; $p < 0.001$) and regarding housework (52.2% vs 48.2%; $p = 0.024$). Furthermore, they presented greater disease activity (6.1 ± 1.8 vs 5.4 ± 2.0; $p < 0.001$) and spinal stiffness (8.6 ± 2.3 vs 7.4 ± 2.5; $p < 0.001$) compared to under and normal weight. For obese patients, the percentage of depression was higher (34.5% vs 23.7%; $p < 0.001$), presenting a poorer mental health (5.7 ± 4.3 vs 5.0 ± 4.2; $p < 0.001$). The factors most strongly associated with obesity were higher functional limitation when tying shoelaces (OR = 1.467; $p < 0.001$), female gender (OR = 1.433; $p < 0.001$) and lesser frequency of intimate relation (OR = 1.239; $p < 0.001$; see Table).

Table. Logistic regression analysis to predict presence of obesity (N = 1,194)

	Simple			Multivariate		
	OR	95% CI	p-value	OR	95% CI	p-value
Age	1.026	1.018, 1.034	**<0.001**	1.026	1.012, 1.040	**<0.001**
Gender (female)	1.336	1.095, 1.629	**0.004**	1.433	1.031, 1.990	**0.032**
Marital status (married)	1.384	1.184, 1.617	**<0.001**	0.982	0.746, 1.292	0.897
Educational level (university)	0.776	0.681, 0.884	**<0.001**	1.046	0.849,1.289	0.674
Employment status (employed)	1.035	0.987, 1.085	0.154	NA	NA	NA
Engage in sports (much less than before)	1.313	1.202, 1.433	**<0.001**	1.143	0.978, 1.336	0.093
Travel/ excursions (much less than before)	1.316	1.186, 1.461	**<0.001**	0.981	0.800, 1.202	0.852
Intimate relations (much less than before)	1.571	1.393, 1.772	**<0.001**	1.239	1.003, 1.530	**0.047**
Tying shoe laces (high)	1.433	1.232, 1.666	**<0.001**	1.467	1.176, 1.830	**0.001**
Housework / cleaning (high)	1.226	1.048, 1.434	**0.011**	0.760	0.596, 0.970	**0.028**
BASDAI (0-10) N:2,584	1.220	1.156, 1.288	**<0.001**	1.127	1.021, 1.244	**0.018**
Spinal Stiffness (3-12) N:2,660	1.184	1.136, 1.234	**<0.001**	1.057	0.987, 1.133	0.115
Sleep disorders diagnosis	1.558	1.284, 1.892	**<0.001**	1.045	0.753, 1.449	0.793
Depression diagnosis	1.648	1.340, 2.027	**<0.001**	1.267	0.892, 1.799	0.186
Psychological distress GHQ-12 (0-12)	1.053	1.029, 1.078	**<0.001**	0.995	0.954, 1.038	0.813

Conclusions: Results from the largest European axSpA survey reveal a similar prevalence of overweight and obesity to the general population. However, compared to normal weight, obese patients present greater disease activity, spinal stiffness and poorer mental health. Additionally, women with axSpA appear to be more vulnerable than men to obesity.

Reference:

1. EU Eurostat. Overweight and obesity - BMI statistics.

PANLAR2021-ABS-1215

ATHEROGENIC INDEX OF PLASMA AS A PREDICTOR OF CAROTID PLAQUE IN PSORIATIC ARTHRITIS PATIENTS

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Objectives: It is well accepted that patients with psoriasis and psoriatic arthritis (PsA), are at an increased risk of cardiovascular disease (CVD). An ultrasound (US) scan of the common carotid artery wall can identify areas of increased thickness and non-occlusive atherosclerotic plaques, which represent subclinical markers of CVD.[1] The atherogenic index of plasma (AIP) is a logarithmically transformed ratio of triglycerides (TG) and high-density lipoprotein cholesterol (HDL-c), that has become a useful predictor of CVD risk.[2] The aim of this study was to determine the association of subclinical atherosclerosis detected by carotid US and the AIP in PsA patients.

Methods: Cross-sectional, observational, and comparative study. A total of sixty-four patients from 30 to 80 years of age who fulfilled the 2006 international Classification of Psoriatic Arthritis criteria (CASPAR) were included. Those with a previous history of atherosclerotic CVD (myocardial infarction, stroke, or peripheral artery disease), diagnosis of any other connective tissue disease, chronic kidney disease, overlap syndrome, and pregnancy were excluded. A high-resolution B-mode carotid US was performed in all patients to evaluate the presence of carotid plaque (CP), which was defined as a carotid intima media thickness ≥ 1.2 mm or a focal narrowing ≥0.5 mm of the surrounding lumen. Patients were divided into two groups according to CP presence, 31 patients with CP and 34 patients without CP. A blood sample was obtained to measure HDL-c and TG. The AIP was calculated by using logarithm with base 10 of ratio TG to HDL-c. Distribution was evaluated with the Kolmogorov-Smirnov test. Comparisons were done with $\chi 2$ test for qualitative variables and Student's

t test and Mann-Whitney's U test for quantitative variables. A p-value <0.05 was considered statistically significant.

Results: Demographic and clinical characteristics are shown in Table 1. There were no differences found in the demographic characteristics between both groups. Type 2 diabetes mellitus (T2DM) was more prevalent in patients with CP 35.5% vs 12.1%, p = 0.02. Patients with CP showed higher AIP values than patients without CP (0.59 ± 0.34 vs 0.38 ± 0.25 respectively, p = 0.005).

Table 1. Demographic and clinical characteristics

	PsA patients with CP (n=3)	PsA patients without CP (n=3)	*P value*
Age years, mean ± SD	56.35 ± 11.88	54.30 ± 7.29	NS
Women, n (%)	14 (45.2)	21 (63.6)	NS
T2DM, n (%)	11 (35.5)	4 (12.1)	**0.027**
HTN, n (%)	13 (41.9)	14 (42.4)	NS
Dyslipidemia, n (%)	17 (54.8)	11 (33.3)	NS
Obesity, n (%)	10 (32.3)	14 (42.4)	NS
Active smoking, n (%)	5 (16.1)	8 (24.2)	NS
BMI kg/m², mean ± DE	29.16 ± 5.08	29.75 ± 6.64	NS
Disease duration years, median (p25-p75)	6.0 (3.0-10.0)	5.0 (3.0-8.0)	NS
DAPSA, median (p25-p75)	15.84 ± 15.61	17.06 ± 13.47	NS
MTX, n (%)	23 (74.2)	20 (60.6)	NS
bDMARD, n (%)	13 (41.9)	13 (39.4)	NS
Lipid Profile			
TC, mean ± SD	181.83 ± 40.27	178.66 ± 30.04	NS
LDL-C, mean ± SD	92.08 ± 35.99	99.51 ± 30.97	NS
TG, mean ± SD	204.92 ± 135.83	136.4 ± 64.74	**0.012**
HDL-C, median (p25-p75)	44.30 (31.40-52.10)	48.50 (42.05-54.60)	NS
AIP, mean ± SD	0.59 ± 0.34	0.38 ± 0.25	**0.005**

PsA, psoriatic arthritis; CP, carotid plaque; SD standard deviation; NS, not significant; T2DM, type 2 diabetes mellitus; HTN, hypertension; BMI, body mass index; DAPSA, disease activity score for psoriatic arthritis; MTX, methotrexate; bDMARD, biological disease modifying antirheumatic drugs; TC total cholesterol; LDL-C, low density lipoprotein cholesterol; TG, triglycerides; HDL-C, high density lipoprotein cholesterol.

Conclusion: Patients with PsA and CP have a higher AIP than patients without CP. These findings suggest that the AIP could be a useful marker to predict the presence of subclinical atherosclerosis in PsA patients.

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1. Martínez-Vidal MP, Andrés M, Jovaní V, Santos-Ramírez C, Romera C, Fernández-Carballido C. Role of carotid ultrasound and Systematic Coronary Risk Evaluation charts for the cardiovascular risk stratification of patients with psoriatic arthritis. J Rheumatol. 2020;47(5):682–9.

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PANLAR2021-ABS-1416

EFFICACY AND SAFETY OF IXEKIZUMAB VERSUS ADALIMUMAB (SPIRIT-H2H) WITH AND WITHOUT CONCOMITANT CONVENTIONAL SYNTHETIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS (DMARD) IN BIOLOGIC DMARD-NAÏVE PATIENTS WITH PSORIATIC ARTHRITIS: 52-WEEK RESULTS

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Objectives: Ixekizumab (IXE) was superior to adalimumab (ADA) at Week (Wk) 24 for simultaneous achievement of ACR50 and PASI100 in patients with active PsA from SPIRIT-H2H.

Objectives: To determine how concomitant csDMARD use affects safety and efficacy of IXE and ADA in prespecified subgroups (biologic monotherapy, concomitant csDMARD).

Methods: SPIRIT-H2H (NCT03151551) was a 52-week, multicentre, randomised, open-label, assessor-blinded, parallel group study evaluating efficacy and safety of IXE vs ADA in adults with PsA naïve to biologic DMARDs, predominantly MTX. Efficacy outcomes (by presence/ absence of csDMARDs) through Wk52 were compared between IXE and ADA using logistic regression models and Fisher's exact tests. Nine patients with active PsO and BSA ≥ 3% were assessed as PASI = 0 at baseline, a medical inconsistency that was resolved using medical judgement. These patients were considered PASI100 responders if PASI = 0 and BSA = 0 at post baseline visits.

Results: At baseline, 193 of 283 IXE-treated patients and 199 of 283 ADA-treated patients had concomitant csDMARD use. A significantly greater proportion of patients on IXE vs ADA achieved the primary endpoint of simultaneous ACR50 and PASI100 when used as monotherapy (38% vs 19%, $p < 0.01$) or with csDMARD (40% vs 29%, $p \leq 0.05$) at Wk52, respectively. Significantly more patients achieved PASI100 with IXE vs ADA when used as monotherapy (66% vs 35%, $p \leq 0.001$) or with csDMARD (64% vs 44%, $p < 0.01$) at Wk52. No difference was seen in ACR50 response at Wk52 between IXE and ADA subgroups. A significantly higher proportion of patients achieved MDA on IXE compared to ADA in the monotherapy subgroup (49% vs 33%, $p \leq 0.05$), while response rates were similar in the combination subgroups (47% vs 44%). Adverse event frequencies were similar across subgroups for IXE and ADA, with infections and nasopharyngitis most common.

Conclusion: Consistent efficacy across multiple PsA domains was observed with IXE regardless of whether IXE was taken with/without csDMARD or MTX therapy.

PANLAR2021-ABS-1282

PREDICTORS OF 1-YEAR TREATMENT RESPONSE AMONG UPADACITINIB-TREATED PATIENTS WITH ANKYLOSING SPONDYLITIS: A POST HOC ANALYSIS OF SELECT-AXIS 1

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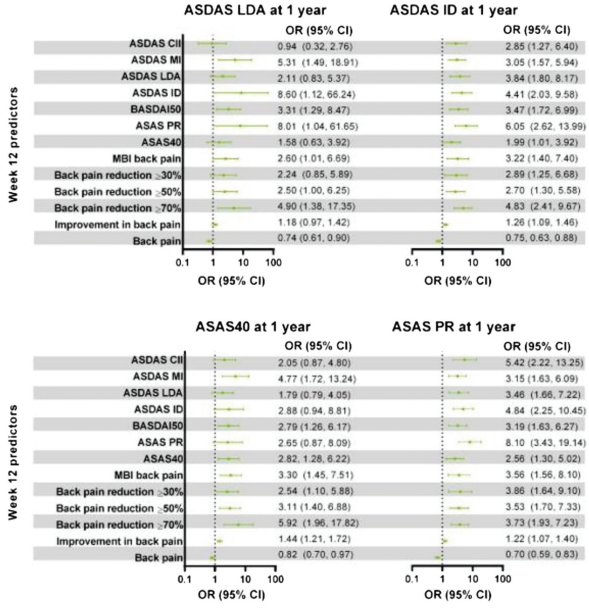
Objectives: Upadacitinib (UPA), an oral Janus kinase inhibitor, has demonstrated efficacy and safety in patients (pts) with ankylosing spondylitis (AS). We determine whether baseline (BL) characteristics or early responses predict clinical response at 1 year (yr) in UPA-treated pts with AS.

Methods: In SELECT-AXIS 1, a double-blind, randomized, placebo (PBO)-controlled study, pts received UPA 15 mg once daily or PBO until Week (Wk) 14. At Week 14, PBO pts switched to UPA 15 mg; pts originally randomized to UPA continued UPA therapy. Data from PBO group and UPA arms were combined based on overall exposure to UPA; in the switch arm, exposure was defined as current visit minus 14 Wks (time of switch). Outcomes assessed at 1 yr were: Ankylosing Spondylitis Disease Activity Score with C-reactive protein (ASDAS[CRP]) inactive disease (ID; <1.3) and low disease activity (LDA; <2.1), Assessment of SpondyloArthritis International Society (ASAS) partial remission (PR), and ≥ 40% improvement in ASAS criteria (ASAS40) response. Ability of BL characteristics, Wk 12 efficacy, and back pain at Wk 12 to predict 1-yr outcomes was assessed using a univariable logistic regression model generating odds ratios (ORs; 95% confidence intervals). LASSO regression determined best-fitted multivariable model at Wk 12 for each outcome measure.

Results: Among 187 pts who received or switched to UPA 15 mg, 70(37.4%), 134(71.7%), 73(39.0%), and 131(70.1%) achieved ASDAS(CRP) ID, ASDAS (CRP) LDA, ASAS PR, and ASAS40, respectively, following 1 yr of UPA treatment. No meaningful predictors of 1-yr efficacy outcomes were identified based on BL demographics (including disease duration, gender, and human leukocyte antigen B27 status) or BL disease characteristics (including ASDAS, Bath Ankylosing Spondylitis Disease Activity Index, and CRP levels). In univariable analyses, Wk 12 responses based on several disease activity measures and patient-reported outcomes (PROs), including reductions (much better

improvement [MBI], ≥30/≥50/≥70% reduction, or improvement) in back pain score, along with lower scores for back pain, were associated with achievement of ASDAS(CRP) ID, ASDAS(CRP) LDA, ASAS PR, and ASAS40 at 1 year (Figure). In a multivariable analysis, improvement from BL to Wk 12 in back pain score consistently predicted several efficacy outcomes at 1 year.

Figure Association between Week 12 response or back pain at Week 12 and achievement of efficacy outcomes at 1 year (univariable analysis)



All ASDAS scores are calculated using C-reactive protein
ASDAS CII: change from BL ≥1.1; ASDAS MI: change from BL ≥2.0; MBI back pain: ≥2-point reduction in absolute score and ≥33% reduction from BL on a 0–10 NRS
ASAS, Assessment of SpondyloArthritis International Society; ASAS40, ≥40% improvement in ASAS criteria; ASDAS, Ankylosing Spondylitis Disease Activity Score; BASDAI50, ≥50% improvement in the Bath Ankylosing Spondylitis Disease Activity Index; BL, baseline; CI, confidence interval; CII, clinically important improvement; ID, inactive disease; LDA, low disease activity; MBI, much better improvement; MI, major improvement; NRS, numeric rating scale; OR, odds ratio; PR, partial remission

Conclusion: In upadacitinib-treated patients with AS, improvement in PROs and reduction in back pain score at 12 weeks predicted clinical outcomes at 1 year.

PANLAR2021-ABS-1235

WORK PRODUCTIVITY IN AN ARGENTINE COHORT OF REACTIVE ARTHRITIS

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Objectives: To assess work productivity loss (WPL) in a cohort of patients with ReA and post-infectious arthritis and its correlation with disease activity, quality of life, functional ability and radiological damage.

Methods: ReA (Calin'79 criteria) and post-infectious arthritis patients, > 18 years of age were included. Work Productivity and Activity Impairment Spondyloarthritis (WPAI SpA) questionnaire was used. Work category, degree of physical demand (Pujol scale) and functional class (Hochberg'91 classification) were recorded. Pain, disease activity, morning stiffness (MS) and fatigue were evaluated through a visual analog scale (VAS), DAS 28 and BASDAI, HAQ and BASFI and quality of life according to EuroQol (EQ-5D). Statistical analysis: a descriptive analysis of the variables. Spearman's correlation coefficient was used to assess the correlation between disease activity measures and WPL.

Results: 35 patients were included, 31 with ReA and 4 with post-infectious arthritis, 68.6% male, median age: 38 years (IQR 29-49) and median disease duration: 18 months (IQR 2-45). Median DAS28 3.07 (IQR 1.87-3.78), BASDAI 2.87 (IQR 1.3-6), HAQ 0.5 (IQR 0-1) and BASFI 2.7 (IQR 0.9-6.1). The dimensions with the highest involvement in the EQ-5D were pain/discomfort (62.8%) and anxiety/depression (48.6%); 65.7% were working. Median absenteeism was 0% (IQR 0-42.5), presenteeism 20% (IQR 0-40), WPL 22.5% (IQR 0-86) and activity impairment 25% (IQR 10-50). WPL correlated with number of painful ($rs = 0.61$ $p < 0.003$) and swollen joints ($rs = 0.74$ $p < 0.001$), pain VAS ($rs = 0.69$ $p < 0.001$), patient activity VAS ($rs = 0.66$ $p < 0.001$), physician VAS ($rs = 0.60$ $p < 0.003$), MS VAS ($rs = 0.59$ $p < 0.003$), DAS 28 ($rs = 0.51p < 0.02$), HAQ ($rs = 0.63p < 0.002$) and activity impairment ($rs = 0.79p < 0.001$). Furthermore, the involvement of daily activities correlated with the number of painful ($rs = 0.56$ $p < 0.001$) and swollen joints ($rs = 0.62$ $p < 0.001$), pain VAS ($rs = 0.69$ $p < 0.001$), patient activity VAS ($rs = 0.67$ $p < 0.001$), physician VAS ($rs = 0.75$ $p < 0.001$), MS VAS ($rs = 0.53$ $p < 0.002$), DAS 28 ($rs = 0.57$ $p < 0.001$) and fatigue VAS ($rs = 0.60$ $p < 0.001$).

Conclusion: In this Argentine cohort, WPL occurred in 22.5% of the patients and was associated with pain parameters, disease activity and functional ability, as well as activity impairment, which was also correlated with fatigue VAS.

PANLAR2021-ABS-1144

WORK ABSENTEEISM AND DISABILITY ASSOCIATED WITH PSORIATIC ARTHRITIS AND PSORIASIS IN THE UNITED STATES – A STUDY OF CLAIMS DATA FROM 2009 TO 2020

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Objectives: Absenteeism and work disability substantially contribute to the economic burden of psoriasis and psoriatic arthritis (PsA). This study compared work absenteeism and short-term disability among adults with psoriasis, PsA, and controls with neither psoriasis nor PsA in the United States.

Methods: Adults eligible for work absenteeism and/or short-term disability benefits between 1/1/2009 and 2/29/2020 were screened in the IBM MarketScan Commercial and Health and Productivity Management Databases. The following groups were defined: 1) Psoriasis: ≥1 inpatient or 2 outpatient psoriasis diagnoses and no PsA diagnoses; 2) PsA: ≥1 inpatient or 2 outpatient PsA diagnoses; 3) Control: absence of psoriasis and PsA diagnoses. Controls were matched 3:1 to psoriasis and PsA patients based on age, gender, and comorbidities. Absenteeism, short-term disability, and corresponding costs (in 2019 USD) were evaluated descriptively and through mixed models.

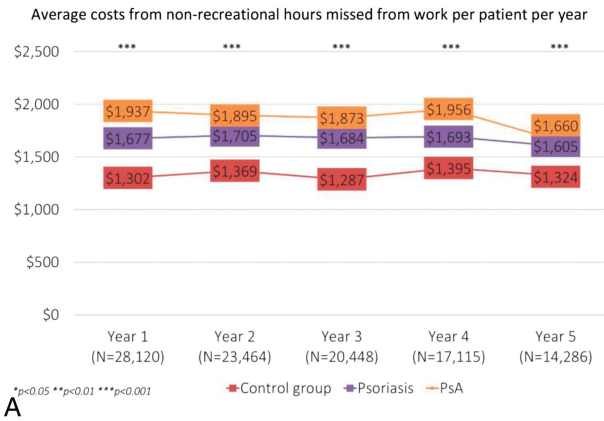
Results: 5,785 psoriasis and 1,245 PsA absentee-eligible and 35,512 psoriasis and 7,434 PsA short-term disability eligible patients were matched to the control group. During the first year of follow-up, 9.7% of PsA patients had short-term disability leave versus 6.2% of psoriasis patients and 4.8% of controls (Table 1). The odds of short-term disability at one year were significantly greater among patients with PsA than psoriasis (OR: 1.56, 95% CI: 1.45-1.69) and controls (OR: 1.95, 95% CI: 1.82-2.10). Average costs from non-recreational work absences were $1,891, $1,680, and $1,333 per patient per year for the PsA, psoriasis, and control group, respectively. Costs associated with non-recreational work absences and short-term disability were significantly greater for PsA and psoriasis patients than controls at one year ($p < 0.0001$ for all comparisons). These costs were also significantly greater for PsA than psoriasis at one year ($p = 0.001$ and $p < 0.0001$, respectively). This trend of increased costs for PsA patients compared with the other groups was sustained throughout the five years of follow-up (Figure 1).

Table 1. Work absenteeism and short-term disability during follow-up

	Control group	Psoriasis	PsA
Number of absentee-eligible patients	21,090	5,785	1,245
Patients with work absence during 1st follow-up year - N (%)			
Non-recreational	12559 (59.5%)	3982 (68.8%)	876 (70.4%)
Sick leaves	9422 (44.7%)	3208 (55.5%)	728 (58.5%)
Absenteeism days during follow-up - Mean (SD)			
Non-recreational (PPPY)	6.29 (13.11)	7.82 (15.53)	8.78 (17.97)
Sick leaves (PPPY)	3.37 (7.62)	4.43 (9.24)	5.10 (10.95)
Costs from hours missed from work - Mean (SD)			
Non-recreational (PPPY)	1333.04 (2778.51)	1680.40 (3350.64)	1890.88 (3878.78)
Sick leaves (PPPY)	714.90 (1614.39)	953.39 (1999.70)	1099.64 (2377.68)
Number of short-term disability-eligible patients	128,838	35,512	7,434
Patients with short-term disability during 1st follow-up year - N (%)	6217 (4.8%)	2190 (6.2%)	722 (9.7%)
Short-term disability days during follow-up - Mean (SD)	2.76 (18.21)	3.38 (21.26)	5.15 (25.71)
Costs associated with short-term disability (PPPY) - Mean (SD)	352.88 (2323.59)	436.03 (2736.99)	664.58 (3315.59)

PPPY: per patient per year

Figure 1.



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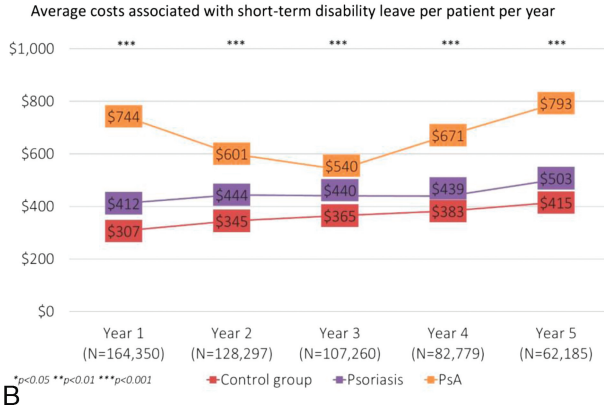

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Conclusions: Work absenteeism and short-term disability were greater among both the psoriasis and PsA groups than the control group. Absenteeism and short-term disability were greater among patients with PsA than psoriasis. These findings demonstrate the substantial impact that psoriatic disease has on patients' work related outcomes, and highlight remaining unmet needs for patients with psoriatic disease.

PANLAR2021-ABS-1149

CLINICAL CHARACTERISTICS & OUTCOMES ASSOCIATE WITH WORK PRODUCTIVITY IN BIO-NAÏVE PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS THROUGH WEEK 24 OF THE DISCOVER-2 STUDY

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Objectives: Psoriatic arthritis (PsA) causes impaired physical function, disability & loss of work productivity (WP). We evaluated associations between PsA clinical characteristics & outcomes including fatigue & WP using Work Productivity & Activity Impairment Questionnaire: PsA (WPAI-PsA).

Methods: The Phase 3 DISCOVER-2 trial assessed guselkumab (GUS), a human monoclonal antibody targeting the IL23p19-subunit, in bio-naïve adults with active PsA despite standard therapies.[1] Patients (Pts) were randomized 1:1:1 to GUS 100 mg Q4W; GUS 100 mg at W0, W4, then Q8W; or placebo (PBO). WPAI-PsA assesses PsA-related work time missed (absenteeism), impairment while working (presenteeism), productivity loss (absenteeism +presenteeism) & daily activity during the previous week. Spearman correlation testing evaluated relationships between demographics & disease characteristics & observed baseline WPAI domain scores. Associations between WPAI & these variables were assessed based on observed data at W0 & W24. Variables with $p < 0.10$ were included in a multivariate analysis; p-values <0.05 were considered statistically significant.

Results: Among 738 pts, WPAI domain scores were moderately to strongly correlated (ie, ≥0.4) with pt-reported pain (0-10 visual analog scale), physical function (Health Assessment Questionnaire Disability Index [HAQ-DI]), fatigue (Functional Assessment of Chronic Illness Therapy-Fatigue [FACIT-F] scale) & 36-Item Short Form Health Survey (SF36) Physical Component Summary (PCS) score, but weakly correlated with other variables (Fig). Based on univariate analyses & evaluation of collinearity between variables, attributes included in multivariate models were age, body mass index (BMI), gender, CRP, FACIT-F, pain, Psoriasis Area Severity Index (PASI), TJC, SJC, enthesitis & dactylitis. In the final model, CRP, FACIT-F & pain were significantly associated with all WPAI domains (Table). Presence of enthesitis & higher PASI score were significantly associated with higher loss of WP & activity outside work.

Conclusions: In PsA pts, extra-articular symptoms, fatigue, pain & elevated CRP were significantly associated with WPAI assessed work and activity impairment. Treating all major clinical manifestations of PsA is needed to help pts improve work and activity impairment. GUS effectively treats all major clinical manifestations[1] and improves work and activity impairment in PsA[2].

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PANLAR2021-ABS-1219

CARDIOVASCULAR RISK FACTORS IN LATIN AMERICAN PATIENTS WITH PSORIATIC ARTHRITIS

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Objectives: Psoriatic Arthritis (PsA) is a chronic inflammatory arthropathy that affects 14% to 30% of patients with skin and/or nail psoriasis. Patients with psoriatic arthritis (PsA) have a higher prevalence of traditional cardiovascular (CV) risk factors and an increased risk of developing cardiovascular diseases[1], such as acute myocardial infarction, cerebrovascular accident, peripheral vascular disease and heart failure. Despite this evidence, patients with PsA are inadequately screened and undertreated for CV risk factors (CVRF), highlighting a gap in preventive medicine to adjust cardiovascular therapies[2]. The aim of the study is to determine the main CVRF in Mexican Mestizo patients with a diagnosis of PsA and to compare it with healthy controls. Additionally, to assess the impact of the diagnosis of PsA on the presence on these cardiovascular comorbidities.

Methods: A cross-sectional, observational, and comparative study of 96 patients with PsA between 40-75 years of age who fulfilled the 2006 CASPAR criteria. Patients were matched by age and gender with non-PsA subjects. A medical history and physical exam were performed, also a blood sample was collected during the first visit. Chi square and Students' t test were used for comparations between groups. A binary regression was performed including the traditional CVRF (diabetes mellitus type 2, hypertension, obesity, and active smoking), age and the diagnosis of PsA.

Results: There were 58 (60.4%) women in each group with a mean of 53 years. Patients with PsA showed a higher prevalence of hypertension (HTN) compared to healthy controls (35.4% vs 19.8%, respectively, $p = 0.015$). Additionally, there was a significant difference in the diagnosis of dyslipidemia (42.7% vs 22.9%, $p = 0.003$). We found no statistically significant difference between the two groups in diabetes mellitus type 2, active smoking and obesity (Table 1).

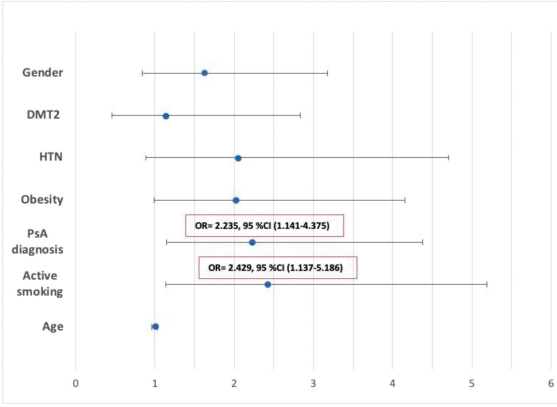
The binary logistic regression showed that the diagnosis of PsA (OR 2.235, 95% CI 1.141-4.375, p = 0.019 and active smoking (OR 2.429 95%, CI 1.137-5.186, p = 0.022) are independent risk factors for the presence of dyslipidemia (Figure 1)

Table 1. Comparison of cardiovascular risk factors between Psoriatic Arthritis and controls.

	PsA (n=96)	Control (n=96)	*p*
Age, years ± SD	53.19 ± 11.13	53.34 ± 8.4	NS
Women, n (%)	58 (60.4)	58 (60.4)	NS
DMT2 2, n (%)	21 (21.9)	12 (12.5)	NS
HTN, n (%)	34 (35.4)	19 (19.8)	**0.015**
Active smoking, n (%)	21 (21.9)	20 (20.8)	NS
Dyslipidemia, n (%)	41 (42.7)	22 (22.9)	**0.003**
Obesity, n (%)	36 (37.5)	25 (26.0)	NS

NS, no significative; SD, standard deviation; HTN, hypertension; DMT2, diabetes mellitus type 2.

Figure 1. Binary logistic regression for the presence of dyslipidemia.



Conclusions: Patients with PsA have a higher prevalence of HTN and dyslipidemia. The diagnosis of PsA seems to be an independent factor for the presence of dyslipidemia. It is important for rheumatologists to identify those patients who could benefit from adjustment of antirheumatic and cardiovascular therapies due to their impact on morbidity and mortality.

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PANLAR2021-ABS-1330

PREVALENCE OF AXIAL SPONDYLOARTHRITIS AMONG YOUNG PEOPLE CONSULTING BECAUSE OF CHRONIC LOW BACK PAIN IN A UNIVERSITY HOSPITAL IN ARGENTINA

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Objectives: Our objective was to estimate the prevalence of axial SpA and the amount of undiagnosed axial SpA in people under 45 years of age that contacted the health care system for chronic low back pain.

Methods: The setting was a University Hospital based Health Management Organization. All electronic medical records of patients with chronic low back pain (lasting 3 or more months), < 45 years of age at time of initiation of symptoms (as defined in ASAS 2009 criteria) seen at university hospital-based health management organization between 2009 and 2019 were reviewed. After review, each patient was classified as definitive axial SpA (AS or non-radiographic SpA) if fulfilled ASAS criteria (among this group, patients were also classified as axSpA if the diagnosis had already been established in the medical records, and undiagnosed SpA when fulfilling ASAS criteria, but without diagnosis by the treating physicians), other definitive diagnosis or undetermined. We are reporting the results of descriptive analysis.

Results: A total of 796 patients were included (Table 1), 426 women (53.52%, 95% CI 50.1-57) with a median age of 34 years (IQR 29-40) at initiation of low back pain with a median follow up of 77.7 months (IQR 35.7-136.4). The prevalence of axial SpA among patients with chronic low back pain was 5.78% (n = 46, 95% CI 4.2-7.4). 22 patients had AS (2.76%, 95% CI 1.6-3.9) with a median lag time between first chronic low back pain and diagnosis of 58.7 months (IQR 33.5 - 92).

All AS cases had already been diagnosed. 24 patients had non-radiographic axial SpA (3.02%, 95% CI 1.8 - 4.2). Of those, 14 were diagnosed by treating physicians with a lag time median of 23.2 months (IQR 13.1 - 36.5) between onset of chronic low back pain and diagnosis. Finally, 10 patients fulfilled ASAS criteria for nr-axSpA but were not diagnosed by treating physicians (22%, 95% CI 9.82-33.66, among patients with axial SpA).

Table 1. Demographic, clinical features and therapeutic characteristics of patients with chronic low back pain stratified by diagnosis.

	Axial spondyloarthritis N=46	Ankylosing spondylitis N=22	Diagnosed non-radiographic axial SpA N=14	Undiagnosed non radiographic axial SpA N=10	Other diagnosis† N=749
Female, n (%, CI)	18 (39.13%, 25.04-53.23)	4 (18.18%, 2.06-34.29)	10 (71.42%,47.7-95.09)	4 (40%, 9.63-70.36	407 (54.3, 50.77-57.9
Age at chronic low back pain initiation, years, median (IQR)	36 (29.25-40)	32 (32-40)	38 (22-36.75)	39 (35.25-41.5)	34 (29-40)
Follow up, median months (IQR)	88 (33.43-148.66)	33.67 (23.38-90.34)	16.73 (7.64-24.02)	64.77 (11.21-164.7)	77.69 (35.83-135.32
Inflammatory chronic low back pain by any criteria n (%)	44 (95.7)	21 (95.5)	13 (92.8)	10 (100)	56 (7.5, 5.6 - 9.4)
Seen by a Rheumatologist, n (%)	42 (91.3)	22 (100)	14 (100)	6 (60)	36 (5.1)
Lag time between first low back pain to axial SpA diagnosis, months, median (IQR)	34.6 (22.6 -63.2)	58.7 (33.5 – 92)	23.1 (13.1 - 36.5)	-	-
bDMARDs treatment n, (%, CI)	15 (33; 19.5 – 48)	10 (45; 24.4 – 67.8)	5 (36; 13 – 64.9)	-	-
Lag time between NSAIDs failure and first bDMARDs, months, median (IQR)	2.66 (2.05-4.63)	2.76 (2.07-11.3).	2.66 (2.04-3.25)	-	-

CI: 95% confidential interval, IQR: interquartile range, bDMARDs: biologic disease modifying antirheumatic drugs. †Other diagnosis: myofascial, spondylolysis, discopathy, osteoarthritis, scoliosis, spondylolisthesis

Conclusions: In our cohort, the prevalence of axial SpA among patients with chronic low back pain under 45 years of age was 5.78% (AS: 2.76%; and nonRxSpA: 3.02%). One in every five patients with the final diagnosis of axial SpA had the disease undiagnosed.

PANLAR2021-ABS-1351

EFFICACY OF IXEKIZUMAB VERSUS ADALIMUMAB IN PSORIATIC ARTHRITIS (PSA) PATIENTS WITH AND WITHOUT MODERATE-TO-SEVERE PSORIASIS: 52-WEEK RESULTS FROM A MULTICENTRE, RANDOMIZED OPEN-LABEL STUDY

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Objectives: Ixekizumab (IXE), is approved for active PsA, moderate-to-severe psoriasis (PsO), and radiographic/nonradiographic axial SpA treatment in adults. Efficacy of IXE was compared to adalimumab (ADA) in patients (pts) with PsA and concomitant PsO in SPIRIT-H2H (NCT03151551). We report results at week (wk) 24 and 52 from subgroup analysis based on baseline PsO severity.

Methods: SPIRIT-H2H was a 52-wk, multicenter, randomized, open-label, rater-blinded, parallel-group study of biologic DMARD-naïve pts (N = 566) with PsA and active PsO (≥3% body surface area). Pts were randomized (stratified by concomitant use of conventional synthetic DMARDs and PsO severity) to IXE or ADA. Pts received on label dosing according to PsO severity. We report efficacy outcomes at wk 24 and 52 for subgroup analysis of patients with/without

moderate-to-severe PsO at baseline. The primary endpoint was the proportion of pts simultaneously achieving ACR50 and PASI PASI100 at wk 24. Additional post-hoc analysis was performed for other endpoints. Logistic regression models were performed with treatment, baseline PsO severity and treatment-by-baseline PsO severity interaction as independent variables. Missing data were imputed using non-responder imputation. Differences in the proportion of responders were assessed using the Fisher's exact test.

Results: At baseline, 49/283 IXE-treated pts and 51/282 ADA-treated pts had moderate-to-severe PsO. A greater proportion of IXE-treated pts achieved the combined endpoint of ACR50 + PASI100, and PASI100 compared to ADA at wk 24 and 52, regardless of baseline PsO severity (Table). Similar efficacy was observed on joints for IXE and ADA across subgroups. Faster improvement was observed for IXE vs. ADA in minimal disease activity (MDA) and Disease Activity in Psoriatic Arthritis (DAPSA) remission regardless of PsO severity, and very low disease activity (VLDA) in pts with moderate-to-severe PsO.

Table. Other efficacy outcomes by subgroup based on PsO severity at baseline.

Proportion of pts, n/N (%)	Week 24				Week 52			
	With moderate-to-severe PsO		Without moderate-to-severe PsO		With moderate-to-severe PsO		Without moderate-to-severe PsO	
	IXE	ADA	IXE	ADA	IXE	ADA	IXE	ADA
ACR50 + PASI100	40.8*†	17.6	35.0	30.3	38.8*	17.6	39.3*	28.1
ACR50	59.2	54.9	48.7	45.0	55.1	62.7	48.7	46.8
PASI100	59.2*†	27.5	60.3*	51.1	59.2***	25.5	65.4***	45.0
ACR20	37/49 (75.5)	40/51 (78.4)	158/234 (67.5)	164/231 (71.0)	36/49 (73.5)	41/51 (80.4)	161/234 (68.8)	153/231 (66.2)
ACR70	21/49 (42.9)	17/51 (33.3)	69/234 (29.5)	56/231 (24.2)	21/49 (42.9)	20/51 (39.2)	79/234 (33.8)	76/231 (32.9)
PASI75	44/49 (89.8)	38/51 (74.5)	183/234 (78.2)*	157/231 (68.0)	42/49 (85.7)	41/51 (80.4)	180/234 (76.9)*	153/231 (66.2)
PASI90	41/49 (83.7)**	30/51 (58.8)	162/234 (69.2)**	128/231 (55.4)	40/49 (81.6)**	31/51 (60.8)	166/234 (70.9)***	122/231 (52.8)
MDA	57.1	39.2	45.7*	34.6	51.0	45.1	46.6	39.8
VLDA	32.7**	9.8	14.1	10.4	26.5	19.6	22.6	18.6
DAPSA LDA/Rem	73.5	64.7	59.0	59.3	71.4	72.5	59.4	55.4
DAPSA Rem	38.8	21.6	23.9	17.3	36.7	39.2	28.6	25.5
SPARCC enthesitis	18/29 (62.1)†	25/36 (69.4)	89/160 (55.6)**	52/134 (38.8)	16/29 (55.2)	22/36 (61.1)	91/160 (56.9)*	60/134 (44.8)
LEI=0	15/25 (60.0)	18/28 (64.3)	80/134 (59.7)	63/118 (53.4)	14/25 (56.0)	18/28 (64.3)	84/134 (62.7)	65/118 (55.1)
LDI-B=0	9/9 (100.0)	19/19 (100.0)	28/33 (84.8)	35/39 (89.7)	8/9 (88.9)	18/19 (94.7)	27/33 (81.8)	29/39 (74.4)
NAPSI=0	28/37 (75.7)*†	21/41 (51.2)	83/154 (53.9)	67/136 (49.3)	29/37 (78.4)	28/41 (68.3)	100/154 (64.9)	76/136 (55.9)
DLQI (0,1)	29/49 (59.2)*†	17/51 (33.3)	145/234 (62.0)	129/231 (55.8)	27/49 (55.1)	19/51 (37.3)	140/234 (59.8)	118/231 (51.1)
HAQ-DI MCID ≥0.35	34/45 (75.6)	37/45 (82.2)	134/207 (64.7)	129/209 (61.7)	33/45 (73.3)	35/45 (77.8)	135/207 (65.2)	129/209 (61.7)

*p≤0.05, **p≤0.01, ***p≤0.001 vs. ADA. P-values from Fisher's exact test. †Interaction p≤0.10. Other efficacy outcome assessed in a *post-hoc* analysis.
Patients with moderate-to-severe PsO (PASI ≥12, sPGA ≥3, BSA involvement ≥10%) received either IXE (160 mg at week 0, then 80 mg Q2W to week 12 and Q4W thereafter) or ADA (80 mg at week 0 then 40 mg Q2W). Patients without moderate-to-severe PsO received either IXE (160 mg at week 0, then 80 mg Q4W) or ADA (40 mg Q2W).
ACR20/70, ≥20%/≥50%/≥70% improvement in American College of Rheumatology criteria; ADA, adalimumab; BSA, body surface area; DLQI (0,1), DAPSA, Disease Activity in PSoriatic Arthritis; Dermatology Life Quality Index 0 or 1; HAQ-DI MCID ≥0.35, Health Assessment Questionnaire–Disability Index minimal clinically important difference of ≥0.35 points; IXE, ixekizumab; LDA, low disease activity; LDI-B=0, complete resolution in Leeds Dactylitis Index–Basic; LEI=0, complete resolution in Leeds Enthesitis Index; MDA, Minimal disease activity (18 entheseal points); n, number of patients in each subgroup; N, number of patients in the analysis population; NAPSI=0, complete resolution in Nail Psoriasis Severity Index; PASI, Psoriasis Area and Severity Index; PASI75/90/, ≥75%/≥90% improvement in PASI; PsA, psoriatic arthritis; PsO, psoriasis; pts, patients; Q2W, every 2 weeks; Q4W, every 4 weeks; SPARCC, Spondyloarthritis Research Consortium of Canada criteria; sPGA, static Physician's Global Assessment; VLDA, very low disease activity (≤8 entheseal points)

Conclusion: In pts with active PsA, a significantly higher proportion of IXE-treated pts achieved the combined ACR50 + PASI100 endpoint, and PASI100 at wk 52 vs. ADA, regardless of baseline PsO severity. ACR50 response at wk 24 and 52 was not influenced by IXE dosing. Faster improvements in MDA and DAPSA remission were observed with IXE than with ADA. These results were consistent with the overall SPIRIT-H2H population.

PANLAR2021-ABS-1341

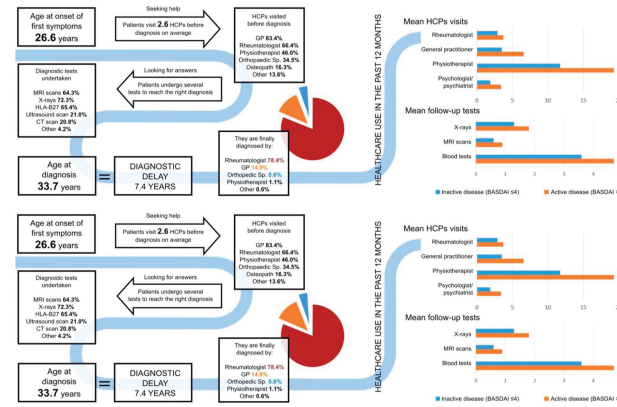
PATIENT JOURNEY TOWARDS AXIAL SPONDYLOARTHRITIS: CRITICAL ISSUES FROM THE PATIENT PERSPECTIVE. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS)

Marco Garrido-Cumbrera[1,2], Denis Poddubnyy[3], Christine Bundy[4], Laura Christen[5], Raj Mahapatra[6], Souzi Makri[7], Carlos Delgado-Domínguez[1], Sergio Sanz-Gómez[1], Pedro Plazuelo-Ramos[2], Victoria Navarro-Compán[8], and IMAS Working Group. [1]*Health & Territory Research (HTR), Universidad de Sevilla, Seville,* [2]*Spanish Federation of Spondyloarthritis Associations (CEADE), Madrid, Spain,* [3]*Department of Rheumatology, Charité - Universitätsmedizin Berlin, Berlin, Germany,* [4]*School of Healthcare Sciences, Cardiff University, Cardiff, United Kingdom,* [5]*Patient Engagement, Novartis Pharma AG, Basel, Switzerland,* [6]*Axial Spondyloarthritis International Federation (ASIF), London, United Kingdom,* [7]*Cyprus League Against Rheumatism (CYPLAR), Nicosia, Cyprus,* [8]*IdiPaz, Hospital Universitario La Paz, Madrid, Spain.*

Objectives: The goal was to assess the journey to diagnosis and further management in axial spondyloarthritis (axSpA) patients.

Methods: Data from 2,846 unselected patients from EMAS, generated through an online survey (2017-2018) across 13 European countries were analysed. Additional data are being collected in Argentina, Brasil, Colombia, Costa Rica and Mexico. Descriptive analysis of sociodemographic factors, insurance scheme, diagnostic journey and post diagnosis healthcare utilization was performed. Mann-Whitey test was used to examine possible differences between BASDAI and the number of visits to healthcare professionals and follow-up tests undertaken.

Results: The mean age was 43.9 years, 61.3% were female, 48.1% university educated, 67.9% married, 53.9% employed and 81.7% had public health insurance. Mean age at symptoms onset was 26.6 (11.1), while mean age at diagnosis was 33.7 (11.5) and mean diagnostic delay (DD) was 7.4 years. Over 50% had a DD of >4 years. Prior to receiving a diagnosis, patients visited on average 2.6 specialists. The most commonly performed diagnostic tests were x-ray films (72.3%), HLA B27 tests (65.4%) and MRIs (64.3%). 78.4% were diagnosed by a rheumatologist while 14.9% received their diagnosis from a General Practitioner (GP). Patients who experienced a DD of >1 year (n = 2,208) undertook a considerable number of visits to specialists and medical tests in the year prior to participating in EMAS, which increased with disease activity. Patients with active disease (BASDAI >4) reported a higher number of visits to rheumatologists (3.7 ± 3.5 vs 2.9 ± 2.6), GPs (6.6 ± 10.0 vs 3.5 ± 4.1), physiotherapists (19.3 ± 25.0 vs 11.7 ± 17.0), and psychologists/psychiatrists (3.4 ± 10.7 vs 1.9 ± 7.7). They also undertook more x-ray films (1.8 ± 2.8 vs. 1.3 ± 1.9), MRI scans (0.9 ± 1.2 vs. 0.6 ± 1.1), and blood tests (4.7 ± 4.4 vs 3.6 ± 3.2) compared to patients with inactive disease (Figure 1).



Conclusions: DD continues to be a key challenge in axSpA journey, with patients waiting an average of 7.4 years, visiting multiple doctors and undertaking a significant number of medical tests prior to diagnosis. Once diagnosed, disease management presents a further challenge, as patients with higher disease activity reported more healthcare professional visits as well as medical tests. Safeguarding health and controlling healthcare utilization requires effective disease management, greater education for non-specialists, rapid referral routes for diagnosis and collaborative care between specialists and non-specialists.

PANLAR2021-ABS-1096

RENAL SURVIVAL IN ANCA VASCULITIS: PERFORMANCE OF THE ANCA RENAL RISK SCORE MARIA VICTORIA

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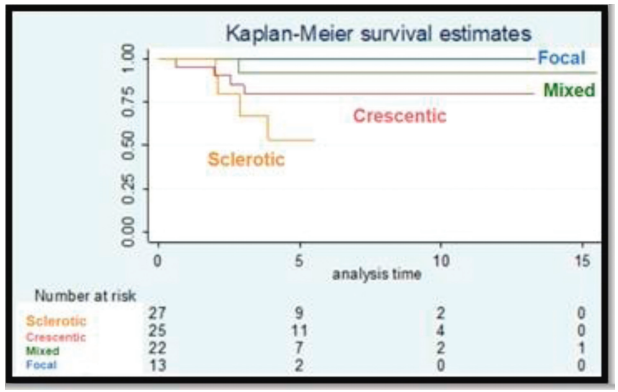
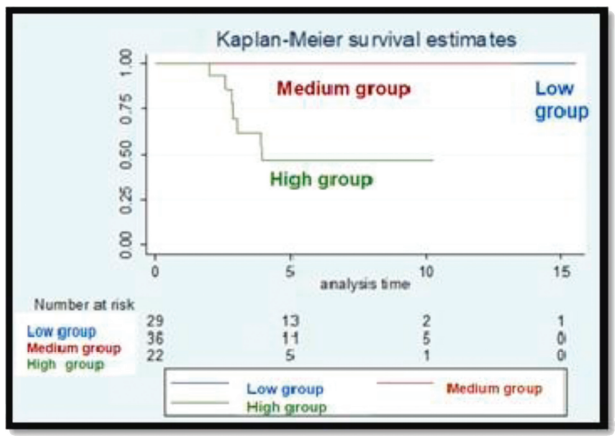
Objectives: To evaluate the performance of ANCA renal risk score (ARRS) in patients with ANCA vasculitis and renal involvement.

Methods: Observational medical records review study. Patients ≥18 years with biopsy-proven ANCA glomerulonephritis (GN) were included between 2002 and 2020. Demographic and clinical data were collected from electronic medical records. Renal biopsies were classified according to Berden classification (focal, crescentic, mixed, and sclerotic class). ARRS was calculated at diagnosis. This score includes percentage of normal glomeruli, tubular atrophy/interstitial fibrosis, and glomerular filtration rate; and it classifies patients into groups at low, medium and high risk of end-stage renal disease. Renal survival, defined as dialysis/transplant-free patients, was evaluated at 6, 12 and 36 months. ROC curves were performed to evaluate the diagnostic accuracy of ARRS. Predictors of renal survival, including the different histological classes and ARRS subgroups, were evaluated using Kaplan-Meier method and Cox proportional hazard model.

Results: Eighty-seven patients with ANCA GN were included: 26 granulomatosis with polyangiitis, 25 microscopic polyangiitis, 4 eosinophilic granulomatosis with polyangiitis and 32 renal-limited vasculitis. Mean age at diagnosis was 65.5 years (SD 16.2), and median follow-up time was 3.7 years (IQR 1.5-6.5). According to the Berden classification 27 patients had a focal class, 25 crescentic, 22 mixed and 13 sclerotic class by biopsy. Sixteen patients (19.5%) died during the follow-up. Renal failure was present in 9, 7 and 6 patients at 6, 12 and 36 months

respectively, none of whom had a focal class biopsy. ARRS was able to predict renal failure, with an area under the ROC curve of 0.92 (95% CI 0.83-1.00) at 6 months, 0.90 (95% CI 0.79-1.00) at 12 months, and 0.93 (95% CI 0.82-1.00) at 36 months. The best cut-off point was ≥9 with a sensitivity and specificity of 88.9% and 89.9% at 6 months, 85.7% and 86.9% at 12 months, and 83.3% and 93.0% at 36 months. None of the patients with a low or medium ARRS (<8 points) had kidney failure during the follow-up. In the univariate analysis, ARRS was associated with renal failure at 6 months (HR 1.75, 95% CI 1.24-2.47, p = 0.001), 12 months (HR 1.82, 95% CI 1.22- 2.70, p = 0.003) and 36 months (HR 1.75, 95% CI 1.17-2.62, p = 0.006). Figures 1 and 2.





Conclusions: In this cohort of patients with ANCA GN, the ARRS demonstrated a very good discriminatory capacity, sensitivity and specificity to predict renal failure at 6, 12 and 36 months.

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PANLAR2021-ABS-1161

INFLAMMATORY ARTHROPATHY IN PATIENTS WITH SYSTEMIC VASCULITIS

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Objectives: To determine the prevalence of joint alterations as a manifestation of activity in patients with systemic vasculitis.

Methods: Descriptive, observational study. Patients with a diagnosis of systemic vasculitis, with symptoms of inflammatory arthropathy, with a directed physical examination and performance of a musculoskeletal ultrasound (US) of the hands.

Results: 28 patients, with a median age of 40.5 years were included. 17 patients with ANCA-associated vasculitis (60.7%), and 11 with another type of systemic vasculitis (39.3%). Regarding the determination of acute phase reactants, the median erythrocyte sedimentation rate (ESR) was 21.5 and C-reactive protein (CRP) was 0.4. ACPA (anti citrullinated antibodies) and Rheumatoid Factor were without reactivity. Disease duration for all vasculitis was 5.0. Physical examination: It was more common to find pain than phlogosis (26.1% vs 8.7%); Using US, grade 1 hypertrophy with a median of 3.0, without grade 2 synovial hypertrophy, grade 1 synovitis with a median of 1.0 without grade 2 synovitis. 6 patients (26.1%) had erosions and 2 (8.7%) had joint effusion. Patients with microscopic polyangiits, Behcet, PAGE, retinal vasculitis, and CNS vasculitis did not have erosions or inflammatory arthropathy activity by US. Those with granulomatous polyangiitis (9), ANCA +, pain and phlogosis in 100%, with erosion-like changes in 3 and joint effusion in 2. Patients with VKH (6) with pain, phlogosis and 3 with erosions. In the case of PAN, 60% had arthritis, and 2 erosions. Images are presented below. Figures 1 and 2 are representative.

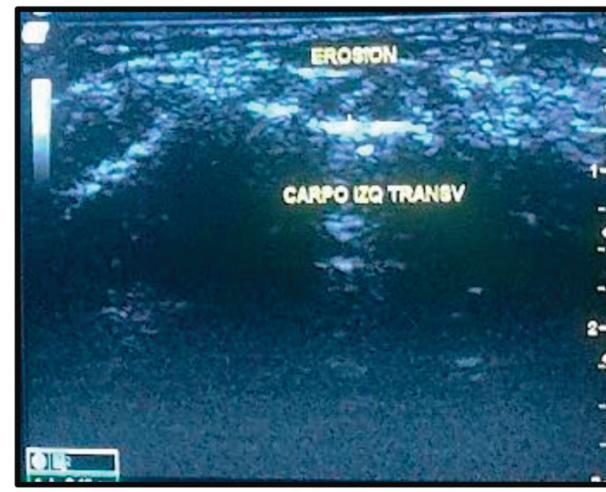

Ilustración 1: Imagen de US de paciente con PAN. Erosión en carpo izquierdo.

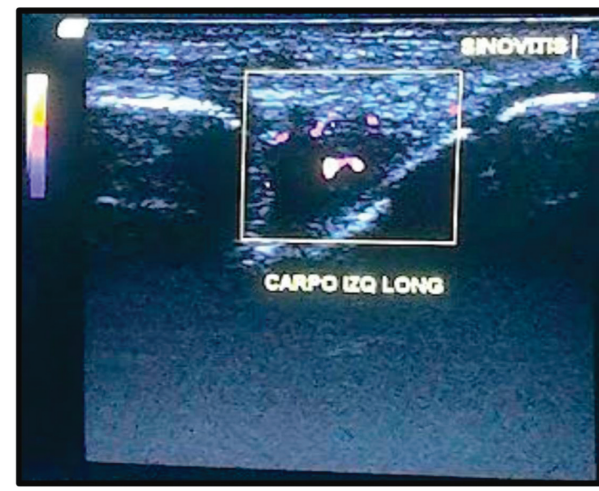

Ilustración 2: Imagen de US de paciente con PAG. Sinovitis en carpo izquierdo.

Conclusions: In ANCA-associated vasculitis, the joint manifestations are more severe (erosions and joint effusion) in granulomatous polyangiitis and Polyarteritis nodosa. And they are not related to ACPA or positive FR. Serious changes (erosions) can be found in non-ANCA vasculitis such as VKH and is related to an increase in acute phase reactants.

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PANLAR2021-ABS-1350

OPHTHALMOLOGICAL MANIFESTATIONS IN TAKAYASU DISEASE

Valery Ascuña, Hugo Madariaga, Maria Elena Luza, and Brisstte Soto.

Objectives: To report atypical ophthalmological manifestations in Takayasu disease.

Methods: Case report

Results: Case 1: A 45-year-old woman, with diffuse joint pain, myalgias, cognitive alterations, a history of stroke and decreased visual acuity for 8 months. At ophthalmological examination: visual acuity OD light perception and 20/30 OS. OD optic nerve atrophy, OS active, ischemic optic neuritis, diffuse arterial thinning and increased venous caliber and peripapillary neovessels in both eyes. On physical examination, differential blood pressure 40 mmHg between upper and lower limbs. An angioresonance was performed, and type I Takayasu disease was diagnosed.

Case 2: Woman, 23 years of age, illness time 1 year, with decreased bilateral visual acuity, weight loss and fever. On ophthalmological examination, visual acuity, movement of hands in both eyes, cellularity AC 2+ in both eyes, total cataract in OS. OD pale optic nerve, generalized thinning of the arteries, associated with multiple areas of perivascular hemorrhages, peripapillary neovessels, and perivascular exudates (chronic retinal vasculitis and ischemia). Ocular fundus non-assessable in OS due to cataract. She presented a stroke that compromised the right fronto-parietal area producing left hemiplegia. Negative infectious disease workup. Blood pressure in upper limbs 60 / 40 mmHg and in lower limbs 150/80 mm Hg. Treatment was started with methylprednisolone 1 g for 3 days and cyclophosphamide 1 g and systemic anticoagulation. Patient discontinued treatment and presents a new stroke. Angio resonance was performed, showing stenosis of the right subclavian and right brachiocephalic trunk; it was diagnosed as type I Takayasu disease.

Conclusions: Ophthalmological manifestations in Takayasu's disease are frequent, generally associated with damage due to hypertension followed by damage due to ischemia, but extremely rare, uveitis. They are generally found in those with involvement of the aortic arch and its branches (types I, II and V).

PANLAR2021-ABS-1135

CLINICOPATHOLOGIC CHALLENGE: VERRUCOUS NODULES ON DISTAL LIMBS

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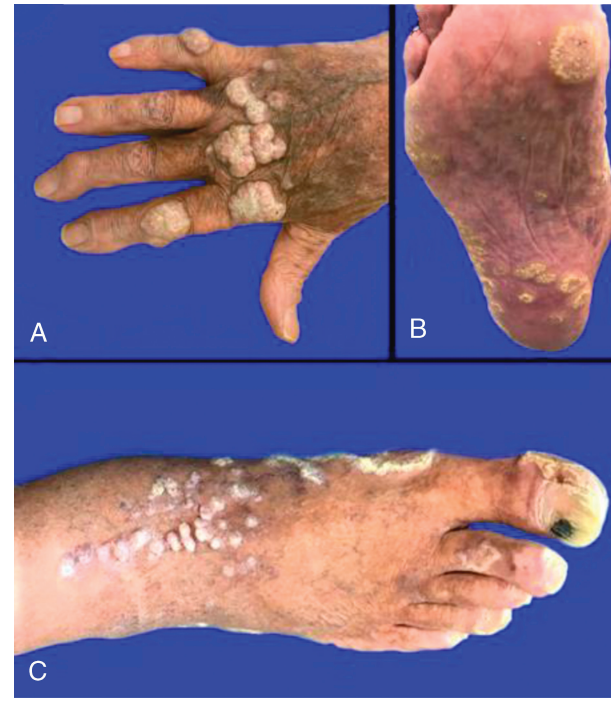
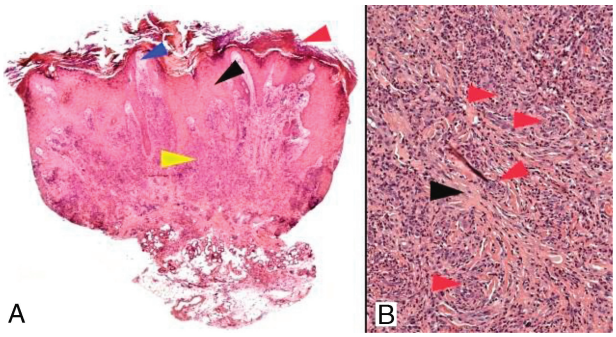
Objectives: Erythema elevatum diutinum (EED) is an uncommon dermatosis manifesting as firm purple nodules particularly over the joints. Histologically it is characterized by a leukocytoclastic vasculitis followed later by spindle cell proliferation and fibrosis. We present a case of a 70-year-old man (fig. 1) with numerous verrucous lesions that appeared five years before and progressively grew in size and in number. His co-morbidity was IgA monoclonal gammopathy of undetermined significance (MGUS).

Methods: Physical examination was otherwise normal. Laboratory tests showed serum M-protein level < 3 g/dL, and bone marrow biopsy showed <10% plasma cells. There was no evidence of multiple myeloma or Waldenstrom's macroglobulinemia by laboratory or imaging tests, no hypercalcemia or renal function impairment. Histologic examination showed hyperkeratosis, acanthosis and papillomatosis (Figure 2) overlying a hypercellular dermis, with prominent fibroplasia in the form of interweaving bundles of collagen. The blood vessel walls were infiltrated by inflammatory cells, particularly neutrophils, nuclear dust and mononuclear cells.

Results: The diagnosis was verrucous EED.



Conclusions: Despite being known for more than a century, the etiology of EED remains elusive. It has been associated with medications, infections, rheumatologic disease, B-cell lymphoma, and, as was found in this gentleman, monoclonal gammopathies. Dapsone is the first line of treatment and steroids are not effective. Cases of verrucous EED are rare, but when lesions are very numerous, as in this case, in the absence of iatrogenic immunosuppression,



laboratory screening might reveal one of conditions associated with EED, including MGUS. This should alert the clinicians to include verrucous EED in their differential diagnosis.

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PANLAR2021-ABS-1260

ANCA-ASSOCIATED VASCULITIS: CASE REPORT

Letícia Dal Ri[1,2], Rafaela Zarpelon Kunz[1,2], Tatiane Fortuna[1,2], Andrea Montenegro[1,2], Gabriel Ferrari Alves[2], Bruno Trevisan[1,2], Gabriela Sasso Padilha[1,2], Rafael Coradin[1], Thiago Willers[1], Felipe Giovani Tawil Aubin[1], Tatiana Freitas Tourinho[1,2], and Maria Lúcia Lemos Lopes[1,2]. *[1]ISCMPA, [2]UFCSPA, Porto Alegre, Brazil.*

Objectives: ANCA-associated vasculitis is a group of vasculitis that affect small vessels, producing auto antibodies against cytoplasmic antigens of neutrophils and myeloperoxidase. Clinical manifestations vary between pulmonary, renal and even cutaneous involvement, which can cause tissue necrosis and in extremes even amputation. In this report, we describe a patient with a rheumatological condition without a confirmed diagnosis who progresses to cutaneous manifestations of vasculitis.

Methods: Medical record review.

Results: 35 year-old man, brown, ex-alcoholic and ex-smoker, undergoing treatment of non-specific arthritis (negative ANA, rheumatoid factor and anti-CCP) with a clinical picture of additive arthritis of metacarpophalangeal joints and ankles associated with cutaneous xerosis and periungual erythema. During clinical evolution, ulcers appeared on the distal phalanges of both hands, with progression to necrosis and amputation of the right third and fourth fingers. New laboratory tests were performed that indicated a positive ANA 1:160 with a dense fine dotted nuclear pattern, nonreactive rheumatoid factor and anti-CCP, positive p-ANCA greater than 1:80 and reactive anti-myeloperoxidase. Thus, the diagnosis of ANCA- associated vasculitis was made, treatment started with prednisone 0.5 mg/kg/day and monthly cyclophosphamide for 6 months with improvement of the condition.

Conclusions: ANCA- associated vasculitis comprises a wide spectrum of clinical manifestations. Non-severe cutaneous involvement can be treated with medications such as colchicine and dapsone; however, when severe manifestations occur, potent immunosuppression is necessary due to the high risk of permanent organ damage and the risk of death.

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PANLAR2021-ABS-1342

PROGNOSTIC VALUE OF RHEUMATOID FACTOR IN ANCA-ASSOCIATED VASCULITIS

Laura Sorrentino[1], Vanessa Castro Coello[1], Jonathan Rebak[1], Alejandro Brigante[1], Demelza Yucra[1], Adriana Hamaui[1], and Diana Dubinsky[1]. *[1]Rheumatology, Sanatorio Güemes, Ciudad Autónoma De Buenos Aires, Argentina.*

Objectives: To set the frequency of rheumatoid factor in our ANCA associated vasculitis (AAV) cohort, and to establish the clinical significance and prognosis of the presence of rheumatoid factor in patients with AAV.

Methods: An observational medical records review study was conducted. Data from our Department databases were extracted from patients diagnosed with ANCA vasculitis over the age of 18, from 2015 to 2019, with rheumatoid factor and anti-citrulline cyclic peptide antibody obtained prior to the initiation of treatment. The following data were collected: age, sex, type of VAA, duration of disease, treatment, affected organs, Birmingham Vasculitis Activity Score (BVAS),

Erythrocyte sedimmentation rate, C-Reactive Protein, dialysis requirement, mechanical ventilatory assistance, mortality, and cause of death. As outcomes were considered: clinical manifestations, dialysis requirement, mechanical ventilatory assistance, mortality, disease activity. Continuous variables were expressed as average ± standard deviation, and categorical variables were performed as number and percentage. For the comparison of means, t-student testing was performed. Odds ratio calculation was performed to determine the association between variables. Significant differences were compared using the Chi-square test for categorical data. A $p < 0.05$ was considered significant.

Results: Demographic characteristics are shown in Table 1. There were no significant differences on the clinical or laboratory manifestations in both groups; the same for disease activity as measured by the BVAS ($p = 0.4234$). Increased dialysis and mortality were observed in the negative rheumatoid factor group (Table 2). The causes of death were sepsis (n = 3) and complication of vasculitis (n = 4).

Table 1. Demographics

	Total	RF +	RF -	p
n (%)	32	10 (31.2)	22 (68.7)	
Age (average)	55.3 ± 15.5	55.7 ± 12.9	55.1 ± 16.8	*p=0.92*
Female n (%)	19 (59.3)	6 (18.7)	13 (40.65)	*p=0.96*
EGPA n (%)	4 (12,5)	1	3	*p=1.77*
GPA n (%)	15 (46.8)	5	10	*p=0.81*
MPA n (%)	6 (18.75)	4	9	*p=0.96*

EGPA: Eosinophilic granulomatosis with polyangiitis, GPA: Granulomatosis with polyangiitis, MPA: microscopic polyangiitis

Table 2. Dialysis, mechanical ventilatory assistance and mortality requirement

	total	RF +	RF -	*OR (CI)*	Q
MVA	8	3	5	*1.45 (0.27-7.81)*	*0.66*
Dialysis	16	2	14	*0.14 (0.024-0.8)*	*0.022*
Mortality	7	0	7		*0.04*

RF: rheumatoid factor, MVA: mechanical ventilatory assistance. OR: Odds Ratio CI: confidence interval

Conclusions: We found a positive rheumatoid factor frequency of 31.2%. Previous studies have found a frequency of 39.1% and 61%. An increased access to dialysis and mortality were observed in the negative rheumatoid factor group, probably conferring a worse prognosis in these patients. The renal protective role of rheumatoid factor has already been studied in other diseases such as RA and SLE. No correlation was found with kidney disease in RA but could be a protective factor of kidney damage in SLE. Demonstrating rheumatoid factor reactivity with soluble antigen-antibody complexes to form immunoprecipitants with higher sedimentation has led to speculation that their function may involve the formation of less soluble complexes, which are easily phagocyted and therefore less likely to be deposited in the renal glomeruli.

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PANLAR2021-ABS-1349

LARGE VESSEL VASCULITIS AND UVEITIS

Valery Ascuña, Hugo Madariaga, and Maria Elena Luza.

Objectives: To report two patients with large vessel vasculitis and associated uveitis, due to their extreme rarity of presentation. Methods case report

Results: Case 1: 68-year-old woman, with 2 years of disease, characterized by multiple episodes of bilateral panuveitis (cellularity 1+, vitreous haze 1+, chorioretinal scars smaller than 50 peripheral microns). In addition, headache and hypersensitivity of the scalp of the right parietal region. On examination, the temporal artery is hardened, thickened, and palpable. Angio-MRI revealed obstruction of the right temporal artery. The patient was diagnosed as having giant cell arteritis, treatment with deflazacort and methotrexate was started with favorable ophthalmological and systemic evolution. Case 2: 23-year-old woman, 1 year of disease, decreased bilateral visual acuity, weight loss and fever. On ophthalmological examination, visual acuity was hand movement in both eyes, CA 2+ cellularity in both eyes, total cataract in left eye (LE). Right eye (RE) with pale optic nerve, generalized thinning of the arteries, with areas of hemorrhages and perivascular exudates (chronic retinal vasculitis and ischemia). Non-assessable LE due to cataract. The patient presented a stroke that compromised the right fronto parietal area, producing left hemiplegia. Blood pressure in upper limbs 60 / 40 mmHg and in lower limbs 150/80 mm Hg. Treatment was started with methylprednisolone 1 g for 3 days and cyclophosphamide 1 g and systemic anticoagulation. Patient discontinued this treatment and presented with a new stroke. An angio resonance showed stenosis of the right subclavian and right brachiocephalic trunk; she was diagnosed as type I Takayasu disease.

Conclusions: There are only 8 reported cases of uveitis associated with Takayasu disease, making it a very rare manifestation of the disease. Like uveitis in giant cell arteritis, there are also only case reports.

PANLAR2021-ABS-1264

CORRELATION BETWEEN THE NEUTROPHIL/ LYMPHOCYTE RATIO, CRP AND BVAS SCORE IN PATIENTS WITH ANCA P VASCULITIS IN A THIRD LEVEL HOSPITAL 2020

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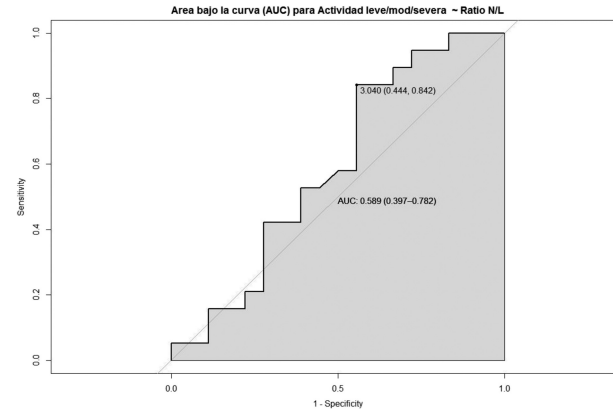
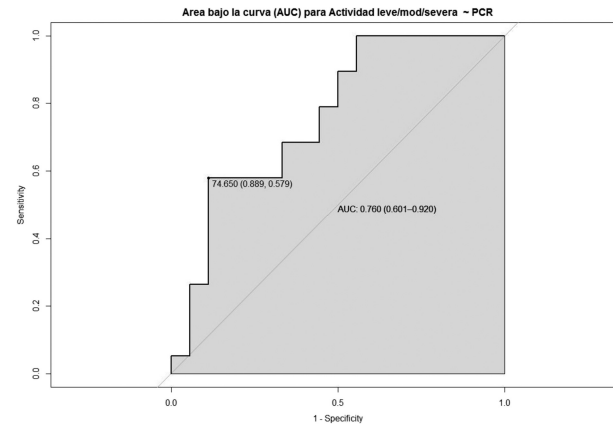
Objectives: To establish whether there is a correlation between the neutrophil lymphocyte ratio, CRP and BVAS score in patients from a tertiary hospital during 2020.

Methods: A cross sectional study was carried out. Target population: Patients with a diagnosis of vasculitis, hospitalized at the HUCSR during the year 2020. Data collection: the medical records of the selected patients were reviewed and analyzed. Analysis: The quantitative variables are presented with measures of dispersion and central tendency. The Shapiro Wilk test was applied to determine the distribution of the quantitative variables. The Spearman or Pearson test was applied according to the distribution of the data to establish correlations. The cutoff point and the area under the curve were calculated. A simple regression analysis was performed. The statistical software R studio 4.0.2 was used to perform the statistical analysis.

Results: In the linear regression analysis, variables that were correlated such as the BVAS score and CRP, the FFS score and age, and the CRP with neutrophil lymphocyte ratio were identified.

The Spearman correlation showed a strong correlation between the BVAS score and the CRP with a p of 0.0005. The area under the curve was calculated with a cut-off point of the BVAS score of 9 points, finding an AUC close to 80% when the CRP was greater than 74 mg / dl and 60% for neutrophil lymphocyte ratio greater than 3,04 (Figures 1 and 2).





Conclusions: Most patients had vasculitis activity with a calculated BVAS>8 points, there was no correlation between the R N/L and the BVAS score but there was a correlation between CRP and BVAS score; so patients with an elevated CRP present vasculitis activity.

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PANLAR2021-ABS-1213

EVALUATION OF THE DIAGNOSTIC PROCESS IN PATIENTS WITH ANCA VASCULITIS AND ITS RELATION TO DAMAGE ACCRUAL AT THE END OF FOLLOW-UP

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Objectives: To define the time and how the diagnosis was reached, to determine which specialists performed it and assessing whether this process affected damage accrual at the end of the follow-up, in patients with granulomatosis with polyangiitis (GPA, Wegener) and microscopic polyangiitis (MAP).

Methods: All patients with GPA and MAP belonging to the health plan of a University Hospital with a diagnosis after the year 2000 were included. The

medical records were reviewed, identifying dates of onset of symptoms, first visit, date of diagnosis, specialists involved in diagnosis and follow-up, type of involvement and BVAS at the beginning, as well as fulfillment of the classification criteria, received treatments and Vascular Damage Index (VDI) at the end of follow-up.

Descriptive statistics and multivariate logistic regression analysis were performed to identify factors associated with a longer delay in diagnosis.

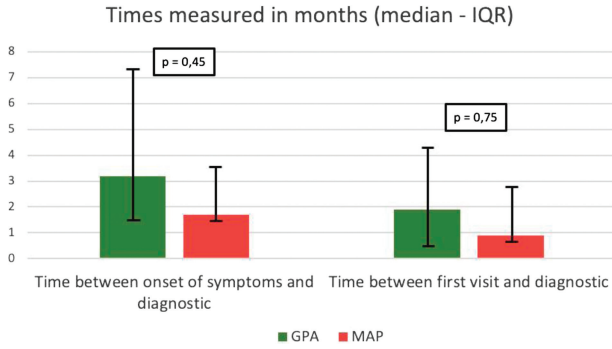
Results: Fifty-two patients with ANCA vasculitis (19 GPA, 33 MAP) were included, of which 40 were women (76.9%). The median age at diagnosis was 75 years (IQR 66.3 - 81.9).

The delay between the onset of symptoms and diagnosis was 1.8 months (IQR 1.3-4.7) and between the first visit for symptoms related to AAV and the diagnosis was 1 month (IQR 0.5- 3.2), with no significant differences between GPA and MAP (these results can be seen in figure 1 and table 1).

The main route of entry to the healthcare system was through general practitioners (84.6%), requiring a median of 6 visits before diagnosis (IQR 3-11) and the specialists who made the diagnosis were mostly rheumatologists (40.4%) and nephrologists (53.8%). Approximately 73% of AAVs were diagnosed during a hospital stay.

Patients with GPA required a greater number of specialists consulted before reaching the diagnosis than patients with MAP (median of 3 (IQR 2-3) versus 2 (IQR 2-3), p = 0.03).

In the multivariate analysis, the only factor associated with a shorter time to diagnosis was having presented renal involvement (OR 0.06, 95% CI: 0.01-0.75, P = 0.03). There was no relationship between diagnostic delay and VDI at the end of the follow-up.



	Total (n=52)	GPA (n=19)	MAP (n=33)	p
Age at diagnostic, age, median (IQR)	75.0 (66.3-81.9)	73.6 (66.2-79.1)	77.4 (66.4-82.7)	0.45
Female sex, n (%)	40 (76.9)	14 (73.7)	26 (78.8)	0.67
ANCA C positive, n (%)	18 (34.6)	18 (94.7)	0	<0.001
ANCA P positive, n (%)	31 (59.6)	0	31 (93.9)	<0.001
Anti PR3 positive, *n/40 performed (%)*	13 (32.5)	13 (92.9)	0	**<0.001**
Anti MPO positive, *n/40 performed (%)*	25 (62.5)	1 (7.1)	24 (92.3)	**<0.001**
Renal involvement, n (%)	44 (84.6)	12 (63.2)	32 (96.9)	**0.001**
Lung involvement, n (%)	30 (57.7)	13 (68.4)	17 (51.5)	0.23
Ear, nose and throat involvement, n (%)	20 (38.5)	14 (73.7)	6 (18.2)	**<0.001**
BVAS at diagnostic, median (IQR)	14.5 (12-18.5)	15 (9-21)	14 (12-18)	0.81
Number of organs involved at diagnosis, median (IQR)	2 (1-3)	2 (1-3)	2 (1-2)	0.31
Relapsing, n (%)	14 (27.4)	8 (44.4)	6 (18.2)	0.04
Retreatment, n (%)	9 (17.3)	5 (26.3)	4 (12.1)	0.19
VDI at the end of follow-up, median (IQR)	3 (2-5)	3 (2-5)	3 (2-4)	0.57
Death, n (%)	16 (30.8)	6 (31.6)	10 (30.3)	0.92

Conclusion: In our cohort of patients with AAV belonging to a closed healthcare system, the median time between the onset of symptoms and diagnosis was 1.8 months. Renal involvement allowed an earlier diagnosis. We found no relationship between time to diagnosis and damage at the end of follow-up.

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