

Premature delivery in patients with Systemic Lupus Erythematosus

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Introduction: Premature delivery (PD) is one of the most important difficulties in perinatology. An incidence on developing countries of around 19% and 5-7% in developed nations is estimated. In Systemic Lupus Erythematosus (SLE) preterm delivery and stillbirth are still concerns, particularly in relation to pregnancies in patients with renal involvement, the presence of antiphospholipid antibodies (a-PL) or anti Phospholipidic Syndrome (APS).

Aim: To evaluate the prevalence of PD in patients with SLE and analyze the relationship between different factors related to the disease with fetal outcomes and neonatal mortality.

Patients and methods: Patients with SLE (1997 ACR criteria) with ≥ 1 pregnancy between 1987-2011 were analyzed. Premature delivery was defined as live birth before 37 weeks of gestation. We compared the outcomes among PD pregnancies versus term pregnancies. The statistical analysis was performed with Chi-square test or test of Student as appropriate.

Results: 166 pregnancies were recorded in 124 SLE patients. In 132/166 (79.5%) pregnancies were live birth. 46/132 (34.8%) were PD. Main causes of PD were: premature rupture of fetal membranes (21.7%), gestosis (19.6%) and placental insufficiency with intrauterine growth restriction (13%). Eight preterm newborn (17.4%) died in the neonatal period, 4 of them were part of the seven cases of extreme preterm birth (< 32 weeks of gestation).

	Preterm 46	Term 98	p	OR	CI
APS	51%	32.65%	0.65	2.063	0.94-4.49
Previous nephropathy	32.6%	30.6%	1.000	1.063	0.46-2.39
Infections	24%	18.3%	0.505	1.39	0.54-3.52
Proteinuria	43.75%	10.2%	0.002	3.85	1.42-10.51
a- PL	77%	52.6%	0.006	3.06	1.27-7.49
Hydroxychloroquine	37%	40%	0.855	0.887	0.40-1.93
Pre-eclampsia	19.6%	11.2%	0.201	1.92	0.66-5.54
Cesarean delivery	58.7%	47%	0.212	1.61	0.74-3.48
Low birth weight	82.6%	10%	<0.0001	41.8	13.9-132
Neonatal Death	17.4%	4%	0.019	4.94	1.24-20.9

Conclusion: 34.8% of the 132 live newborns from mothers with SLE were preterm deliveries. Proteinuria during the course of the pregnancy and anti-phospholipid antibodies were significantly associated with PD. Patients with PD had increased the risk of having a newborn with low birth weight as well as increased mortality in the neonatal period, especially when the delivery occurred before 32 weeks of gestation.