

## **Human Papillomavirus Lesion in Systemic Lupus Erythematosus.**

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**Background/Purpose:** Papapanicolau test and a pelvic exam are important as a part of a woman's routine health care because it can detect cancer related abnormalities. Human papillomavirus (HPV) infection is the primary risk factor for cervical cancer and is the most common sexually transmitted infection. Previous studies have demonstrated an increase prevalence of atypical cervical smears in patients with Systemic Lupus Erythematosus (SLE). These patients probably, may be predisposed to HPV infection due to SLE itself or the use of immunosuppressant or both. The aims of this study were to compare, the prevalence of abnormal pap smears in SLE patients and to compare it with a group of healthy controls.

**Methods:** We studied consecutive patients fulfilling ACR criteria for SLE, recruited from one rheumatology center included between 2007 to 2010. Healthy controls were recruited from the same community and were matched by age. Each individual provided detailed medical information, medication and biochemistry. Disease activity was determined using Systemic Lupus Erythematosus Activity Index (SLEDAI) and disease damage by Systemic Lupus Erythematosus Collaborating Clinics Damage Index (SLICC). All the patients were referred to the gynecologist to take a sample of pap smear and colposcopy study.

**Results:** Thirty-two patients and 33 healthy controls were included. The median age of the SLE women was 35 years (IQR: 27–43.7) with a median disease duration of 6 years (IQR: 3–9.75). The prevalence of abnormal pap (Class III) smear was 12.4% (n = 4) in SLE patient compared with 6.1% (n = 2) in controls, but this difference did not reach statistical significance. The prevalence of squamous intraepithelial lesion (SILs) was higher in patients than in controls, but was not statistically significant (7 (21.8%) vs 3 (9.09%), p = 0.139). The distribution for Low – grade SIL (LGSIL) was 3 (9.4%) vs 1 (3%), p = 0.355 and for high grade SIL (HGSIL) was 4 (12.5%) versus 2 (6.1%), p = 0.427. One of the patients had florid papillomatosis. In SLE patients there was no association between the presence of an abnormal gynecologic exam and the use of any immunosuppressive therapy, or higher levels of SLEDAI or SLICC.

**Conclusion:** Abnormal Pap smear was more frequent in SLE patients than in healthy controls, though it did not reach statistical significance, perhaps due to the small number of patients.