nervous system involvement were less in the abnormal than normal BMD group ($\chi^2 = 5.996$, $P = 0.014$ and $\chi^2 = 8.169$, $P = 0.004$). Multivariate analysis showed that BMI (correlation coefficient = 0.484, $P < 0.001$) and multisystem damage (correlation coefficient = 0.258, $P = 0.003$) were positively correlated with BMD.

Conclusion: Low BMI, SLEDAI and less multisystem damage may be risk factors of BMD abnormalities in newly diagnosed SLE patients.

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AB0502

IMPROVING RATES OF CERVICAL CANCER SCREENING AND PREVENTION IN PATIENTS WITH LUPUS

Nancy Desai, Michael York, Hanni Menn-Josephy, Ramon Bonegio, Christina Lam, Anna Kancharla. *Boston Medical Center, Boston, United States of America*

Background: Recent studies suggest that patients with lupus have higher rates of cervical dysplasia and pre-malignant lesions. We have a large population of lupus patients at our institution that may be at increased risk of dysplastic lesions due to suboptimal rates of HPV vaccination and cervical cancer screening. The aim of this study was to determine the rate of HPV vaccination completion and cervical cancer screening compliance among the lupus patients seen in our institution. In addition, we developed a process to increase patient education and improve both HPV and cervical cancer screening rates at the level of the outpatient renal, dermatology and rheumatology clinics.

Objectives: To improve rates of cervical cancer screening and HPV vaccination among patients with Lupus

Methods: A comprehensive list was compiled of all patients with a diagnosis of lupus seen in the clinics over a 3 year period. A chart review of 332 patients was subsequently performed to determine the rate of HPV vaccination completion and the rate of compliance with cervical cancer screening. Methods were developed to improve these rates by streamlining access to HPV vaccination sites or facilitating referral for screening exams. Patients were also provided education through brochures about their increased risk.

Results: Our results revealed that rates of HPV vaccination among lupus patients at our institution were lower than national averages by 11%. Rates of cervical cancer screening were also 21% lower compared to national average for this group of patients. In creating a system to flag providers and increase patient education, we were able to improve these rates. In the first two months, 73.7% of all patients seen in the clinics were provided education and 61.5% of eligible patients that were seen in clinic were appropriately referred to either their PCP or to gynecology to complete cervical cancer screening and prevention.

Conclusion: Initial review of the lupus population at our institution highlighted a strong need to develop an intervention to improve vaccination and screening compliance in this population. By raising awareness amongst providers, we were able to significantly increase the number of at risk patients referred for cervical cancer screening and prevention. Given that the United States Food and Drug Administration has recently approved to expand the use of the HPV vaccine to women and men up to age 45, future efforts will be made to expand our eligible population to reflect these recommendations.

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AB0503

THE LUNG IN SJÖGREN'S SYNDROME PATIENTS – AN OVERVIEW OF CLINICAL CHARACTERISTICS AND DISEASE OUTCOME

Ana Catarina Duarte, Ana Cordeiro, Maria Jose Santos. *Hospital Garcia de Orta, Rheumatology Department, Almada, Portugal*

Background: Lung involvement has been reported in 10-20% of patients (pts) with primary Sjögren's syndrome (pSS) and mostly affecting parenchyma and airways. Its occurrence significantly impacts both quality of life and mortality in pSS pts.

Objectives: To characterize lung involvement in a cohort of pSS pts and present our experience with immunosuppressive drug treatment for pSS-interstitial lung disease (ILD).

Methods: Retrospective analysis of pSS pts followed in our Rheumatology department until December 2018. Lung involvement was based on imaging and/or histopathological alterations described in the spectrum of pSS-associated lung disease. Patients with and without lung disease were compared using parametric and non-parametric tests.

Results: In total, 137 pSS pts who fulfilled the European-American consensus criteria 2002 were identified, 130 (94.9%) females, with mean age at pSS diagnosis of 56.1 (± 12.2) years; median disease duration 6 [IQR 3-10] years and median follow-up 6 [IQR 3-10.25] years. Antinuclear antibodies were positive in 113 (82.5%) pts, with 95/134 (70.9%) pts presenting positive anti-SSA and 60/128 (46.9%) anti-SSB. Specific immunoassays performed in 82 pts allowed identification of anti-Ro52 antibody in 48 (58.5%) of them. Rheumatoid factor was positive in 48/91 (52.7%).

During follow-up 3 pts died, 1 due to ILD progression and 2 due to sepsis (respiratory and abdominal), both under immunosuppression.

Lung involvement occurred in 17 (12.4%) pts; median time to lung disease was 2 years [IQR 0-8] after pSS diagnosis.

Mean EULAR SS disease activity index (ESSDAI) at the time of lung involvement diagnosis was 13.1 (± 5).

Differences between pts with and without lung involvement are shown in table 1.

Table 1. – Comparison between pts with and without lung involvement

	Lung involvement (n=17)	No-lung involvement (n=120)	p-value
Female	17 (100%)	113 (94.2%)	0.31
Age at pSS diagnosis (mean $\pm$ SD)	60.9 $\pm$ 8.6	55.4 $\pm$ 12.4	0.04
Disease duration (median IQR)	8 [2.5-12]	5 [3.9-7.5]	0.24
ANA	15 (88.2%)	99 (82.5%)	0.56
Anti-Ro52	7 (63.6%)	41 (57.7%)	0.72
Hypergammaglobulinemia during follow-up	10 (58.8%)	48 (40%)	0.14
Constitutional involvement during follow-up	6 (35.3%)	5 (4.2%)	<0.001

Legend: pSS - primary Sjögren's syndrome; ANA- antinuclear antibodies