features were also collected in pSS patients (disease duration, disease activity measured by ESSDAI, glandular vs extraglandular involvement, serological features and treatments received).
Statistical analysis: To evaluate differences between patients and controls, T-test or Wilcoxon test with continuity correction, were used for quantitative features and Fisher test for categorical variables. In order to test the presence of pSS as an independent risk factor for subclinical atherosclerosis, from other features as classic CVRFs or analytical data, first we adjusted logistic binomial regression in a bivariate analysis, to select possible predictors to be included in a multivariate analysis. Statistical significance was p<0.05, and OR CI 95% vas calculated. *R-Statistics v- 3.6*
**Results:** All of the 76 patients included were women, with a mean age of 53.7 ± 11.7 years. For both groups, no differences between prevalence of classical CVRFs were found. Subclinical atherosclerosis presence was higher in patients with pSS than in controls [OR= 4.17, 95%CI (1.27- 16.54), p<0.001], as well as CIMT values (0.79± 0.43 mm vs. 0.66 ± 0.27 mm; p=0.02). An association of subclinical atherosclerosis with erythrocyte sedimentation rate [OR=1.18, 95%CI (1.05-1.37), p<0.05] and Rheumatoid Factor [OR=1.28, 95%CI (1.63-2.26), p<0.05].
**Conclusion:** This cohort showed a greater prevalence of subclinical atherosclerosis in patients with pSS, indicating this disease as an independent risk factor for presence of early vascular damage.
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## AB0438 MALIGNANCIES IN PATIENTS WITH PRIMARY SJOGREN'S SYNDROME

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**Background:** Sjogren's syndrome (SS) is a chronic, systemic, autoimmune disease. The risk of developing lymphoproliferative malignancies is high in primary Sjogren's syndrome(pSS).
**Objectives:** In this study, we planned to present malignancy data in patients who were followed up in our outpatient clinic with a diagnosis of pSS.
**Methods:** Data of 151 patients diagnosed with pSS between 2004-2019 were retrospectively reviewed and clinical, demographic characteristics of 15 patients diagnosed with malignancy were examined.
**Results:** All 15 patients with malignancy were female, their mean age was 59 ± 13 years, and the disease duration was 9 ± 1 years.
In this group, 7% of the patients had fever, 13% had weight loss and 7% had night sweats. Dry eye was present in 87%, dry mouth in 93%, LAP in 53% (Table 1). None of the patients had myositis, neuropathy and vasculitis. In 87% of the patients, schirmer was below 5 mm and in 67% of the salivary gland scintigraphy, decreased involvement in the parotid and submandibular gland was detected. Salivary gland biopsy was compatible with pSS diagnosis in 53% of patients. Rheumatoid factor, ANA, SS-A and SS-B were positive in %60, %93, %67 and %53 of patients, respectively.

**Table 1. The data of pSS patients with malignancy**

| | N(%) |
|---|---|
| Gender (Female) | 15(100) |
| Dry mouth | 14(93) |
| Dry Eye | 13(87) |
| Arthritis | 3(20) |
| Parotitits | 4(27) |
| Raynaud Phenomenon | 2(13) |
| Lymphadenopathy | 8(53) |
| Interstitial Lung Disease | 4(27) |
| Smoking | 7(47) |

**Table 1. The data of pSS patients with malignancy**

| | |
|---|---|
| Hypocomplementemia | 4(27) |
| Malignancy | |
| Lung Cancer | 2(13) |
| Breast Cancer | 4(27) |
| Thyroid Papillary Cancer | 3(20) |
| Cervical Cancer | 2(13) |
| Vulva Cancer | 1(7) |
| Mycosis Fungoides | 1(7) |
| MALT lymphoma | 1(7) |
| Diffuse Large B Cell Lymphoma | 1(7) |

Low C3 level was detected in 27% of patients and C4 level was normal in all patients. Hypergammaglobulinemia was detected in%27 patents but data of five patients could not be reached. Malignancy was detected in 10% of the patients who were followed up with the diagnosis of PSS. Two patients had cervical cancer (CA), four had breast CA, three had thyroid papillary CA, one had diffuse large b cell lymphoma, one had MALT (mucous-associated lymphoid tissue) lymphoma, one had mycosis fungoides, one had vulva epithelial carcinoma and two had lung CA. Patients with malignancy and those without were compared in terms of clinical and laboratory findings. There was a significant relationship between presence LAP and smoking with development of malignancy. Subgroup analysis was performed according to titers of C-Reactive protein (CRP) and erythrocyte sedimentation rates (ESH), but there was no significant relationship between laboratory findings and the development of malignancy. (Table 2)
**Conclusion:** According to 2015 data of Turkey unified database for all age groups, the rate of cancer in woman is 25% for breast cancer, 12% for thyroid CA, 5.1% for lung CA, 2.5% for cervical CA, 2.8% for non-hodgkin lymphoma. Patients with pSS have a 6 to 19-fold increased risk for the development of non-Hodgkin B-cell lymphoma. For these reasons, detailed questioning and physical examination gain importance in the follow-up of patients
**References:**
[1] E Theander, G Henriksson, O Ljungberg.Lymphoma and other malignancies in primary Sjögren's syndrome: a cohort study on cancer incidence and lymphoma predictors. Ann Rheum Dis. 65 (6):796-803 2006

**Table-2. Relationship between presence of malignancy and clinical and laboratory findings**

| *N(%)* | *Malignancy(±)* **15** | *Malignancy(-)* **136** | *P* | *OR* | *%95 CI* |
|---|---|---|---|---|---|
| Hypocomplementemia | 4(27) | 11/96(12) | 0,119 | 2,81 | 0,76-10,3 |
| Fever | 1(7) | 7(5) | 0,576 | 1,31 | 0,15-11,4 |
| Night Sweats | 1(7) | 0 | * | * | * |
| Weight Loss | 2(13) | 10(7) | 0,339 | 1,93 | 0,38-9,81 |
| Smoking | 7(47) | 24(20) | 0,043 | 3,6 | 1,19-10,9 |
| LAP | 8(53) | 36(27) | 0,039 | 3,17 | 1,07-9,38 |
| Hypergammaglobulinemia | 4/10(40) | 26/86(30) | * | * | * |
| ESH>50 mm/h | 2(13) | 8(6) | 0,260 | 2,46 | 0,47-12,8 |
| CRP>3XNormal | 2(13) | 14(10) | 0,662 | 1,34 | 0,27-6,56 |

*No analysis was done because the data was not enough

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## AB0439 LUNG FINDINGS IN PATIENTS WITH PRIMARY SJOGREN'S SYNDROME

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**Background:** Sjogren's syndrome (SS) is a systemic, autoimmune disease and can affect many organs and systems.
**Objectives:** In this study, we planned to present the lung findings of primary SS (pSS) patients who are being followed in our outpatient clinic.
**Methods:** Chest radiographs and thorax CTs of 151 patients who were admitted to the rheumatology outpatient clinic between 2004 and 2017 and diagnosed as pSS according to the classification criteria of the American-European consensus group Sjogren's syndrome were retrospectively scanned.
**Results:** In our study, 97% of pSS patients were female and 3% were male and the mean age was 56 ± 12 years, disease duration was 10.5 ± 5 years.
It was observed dry eye in 86% of patients, dry mouth in 88%, parotitis in 17%, arthritis in 29%, vasculitis in 4%, neuropathy in 6%, myositis in 1%, lymphadenopathy in 29% (LAP), and 20% of patients had Raynaud phenomenon. In 50% of the patients, chest radiography was normal, and there were no respiratory complaints. Thorax CT was requested due to suspicious appearance on 50% chest x-ray.

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According to CT findings, 23% had nodules in the lung, nodule sizes were less than 1 cm, and patients were followed up for an increase in size. Hiler and subcarinal lymph nodes were present in 6% of patients and their sizes was ranged from 5 mm to 15 mm. Bronchoscopy was performed for two patients due to mediastinal LAP. Biopsy results were evaluated as reactive changes.

Interstitial lung disease (ILD) findings were present in 16 patients. (69% NSIP, 25% LIP, 6% UIP). All patients with ILD received steroid therapy. Two patients received 6 cycles of cyclophosphamide treatment for active alveolitis and azathioprine (AZA) was used in maintenance therapy. Due to ILD, one patient was receiving rituksimab, one patient was receiving mycophenolate mofetil, while nine patients were using AZA.

It was found bronchiectasis in 3% of patients, emphysema in 5%, sequelae fibrotic changes in 13%, and 1% patients had thickening of the pleura. One patient was diagnosed with hypersensitivity pneumonia and two patients had lung cancer (Table-1).

There was a smoking history in 21% of the patients. There was a significant relationship between smoking and development of emphysema and malignancy. The relationship between smoking and lung cancer development could not be assessed due to the absence of lung cancer in the non-smoking group (Table-2).

**Conclusion:** Lung findings are detected in 9-12% of patients in pSS, which can increase to 75% with the use of tomography, pulmonary function tests and bronchoscopy.

Since pSS has a wide spectrum from airway disease or interstitial lung disease to BALT lymphoma lung involvement of the disease has been emphasized.

**References:**

[1] Hatron PY, Tillie-Leblond I, Launay D, et al.: Pulmonary manifestations of Sjogren's syndrome. Presse Med. 40:e49-e64 2011

**Table 1. Lung Findings of Primary Sjogren's Syndrome Patients**

| | %(N) |
|---|---|
| Nodule | 23(34) |
| Mediastinal LAP | 9(6) |
| Interstitial Lung Disease | 11(16) |
| NSIP | 69(11) |
| LIP | 25(4) |
| UIP | 6(1) |
| Bronchiectasis | 3(4) |
| Atelectasis | 5(7) |
| Emphysema | 5(7) |
| Sequelae Fibrotic Change | 13(19) |
| Tuberculosis Sequelae | 1(2) |
| Airway disease | 1(1) |
| Pleural effusion | 1(2) |
| Lung cancer | 1(2) |

**Table 2. Effects of smoking on lung findings**

| N(%) | Smoker 31(21) | Non-Smoker 107(71) | p | OR | %95 CI |
|---|---|---|---|---|---|
| Emphysema | 6(19) | 1(1) | 0,001 | 25 | 2,9-220 |
| Interstitial Lung Disease | 2(7) | 14(13) | 0,524 | 0,458 | 0,09-2,13 |
| Raynaud | 6(19) | 22(21) | 0,883 | 0,926 | 0,33-2,53 |
| LAP | 10(32) | 32(30) | 0,802 | 1,11 | 0,47-2,63 |
| Nodule | 9(29) | 23(22) | 0,381 | 1,49 | 0,60-3,68 |
| Malignancy | 7(23) | 8(8) | 0,043 | 3,6 | 1,19-10,9 |
| Lung Cancer | 2(7) | 0 | - | - | - |
| Atelectasis | 2(7) | 3(3) | 0,313 | 2,39 | 0,38-14,9 |
| Bronchiectasis | 0 | 4(4) | - | - | - |

**Disclosure of Interests: :** None declared

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## AB0440 LDL-CHOLESTEROL AS A RISK FACTOR OF PROGRESSION TO ESRD IN PATIENTS WITH LUPUS NEPHRITIS

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**Background:**

**Objectives:** There are few data on the effect of dyslipidemia in patients with lupus nephritis (LN). Thus, we investigated the effect of low-density lipoprotein-cholesterol (LDL-C) on the progression to end-stage renal disease (ESRD) in patients with biopsy-proven LN.

**Methods:** We followed 121 LN patients who underwent kidney biopsy and were subsequently treated with immunosuppressive drugs. Sociodemographic, clinical, laboratory (including lipid profile), and treatment-related data at the time of kidney biopsy and during follow-up were obtained by a review of patients' charts. Patients were divided into two groups related to the mean LDL-C level: <100 mg/dL and ≥100 mg/dL. Cox's proportional regression analysis was performed to identify the independent predictors of progression to ESRD in LN patients.

**Results:** Seventy-one of 121 biopsy-proven LN patients (58.7%) showed more than 100 mg/dL of LDL-C at the time of LN diagnosis. The higher LDL-C group excreted more 24-hour urine protein (p=0.003), and showed a higher proportion of proliferative LN (p=0.013) and an activity score >12 (p=0.023). During a mean follow-up of 83.0 (range, 12–171) months, ESRD was more frequent in the higher LDL-C group than in the lower group (15.5% vs. 2.0%; p=0.012). In the multivariate Cox's proportional regression analysis, LDL-C ≥100 mg/dL (hazard ratio [HR], 171.340; p=0.012), estimated glomerular filtration rate during the renal biopsy (HR, 0.977; p=0.005), statin exposure during follow-up (HR, 0.163; p=0.031), relapse (HR, 9.752; p=0.036), and complete remission at 1-year of treatment (HR, 0.034; p=0.003) were significant predictors of progression to ESRD in LN patients.

**Conclusion:** Our findings suggest that dyslipidemia at the onset of LN is an independent risk factor for predicting the development of ESRD in LN patients. Therefore, lipid profile should be monitored carefully and managed aggressively to avoid the deterioration of kidney function in patients with LN.

**Disclosure of Interests:** None declared

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## AB0441 ASSOCIATION OF CO-POSITIVITY FOR ANTI-DSDNA, -NUCLEOSOME, AND -HISTONE ANTIBODIES AND DISEASE ACTIVITY IN PATIENTS WITH LUPUS NEPHRITIS: RESULTS FROM THE KORNET REGISTRY

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**Background:** Recent studies have shown that the simultaneous positivity of anti-double stranded DNA, -nucleosome, and -histone antibodies (3-pos) is prevalent in lupus nephritis (LN) patients compared to non-renal systemic lupus erythematosus (SLE) patients.

**Objectives:** The aim of this study was to define the clinical, biologic, histopathologic, and prognostic differences according to the simultaneous reactivity to those antibodies in Korean patients with biopsy-proven LN.

**Methods:** We studied 102 patients who underwent kidney biopsy prior to the start of induction treatment and who were subsequently treated with immunosuppressives and followed-up for more than 12 months. Sociodemographic, clinical, laboratory, and treatment-related data at the time of kidney biopsy and during follow-up were obtained by a review of patients' charts. Antibodies were detected by immunoblot analysis or ELISA at the time of renal biopsy.

**Results:** Fifty-eight (35.4%) of the total of 102 LN patients had 3-pos. In comparison with non-3-pos patients, the patients with 3-pos showed a higher SLE Disease Activity Index-2000 score (P=0.002), lower lymphocyte level (p=0.004), higher proportion of proteinuria >3.5 g/24 hr (p=0.005), and higher positivity of urinary sediments (p=0.005) at the time of renal biopsy. In the renal histopathologic findings, the patients with 3-pos had more proliferative LN (p=0.015) and also showed more endocapillary hypercellularity, sub-endothelial hyaline deposits, fibrinoid necrosis/karyorrhexis, and cellular crescents in the disease activity index (p=0.016, p=0.045, p=0.002, and p=0.022, respectively), as well as a higher activity score (p=0.011). After a median follow-up of 83.2 months, rapid glomerular filtration rate decline was frequently observed in patients with 3-pos compared to those without (p=0.012).

**Conclusion:** Our findings suggest that 3-pos is related to severe LN and, furthermore, that patients with 3-pos show a rapid decline of renal function compared to those without.

**Disclosure of Interests:** None declared

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## AB0442 RISK FACTORS ASSOCIATED WITH THROMBOTIC EVENTS IN KOREAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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**Background:**

**Objectives:** Up to 30~40% of all patients with systemic lupus erythematosus (SLE) experience thrombosis, presenting as stroke and myocardial infarction, and these thrombotic events cause substantial morbidity and mortality in SLE. We explored the risk factors associated with the occurrence of thrombotic events in SLE patients.

**Methods:** This study enrolled 259 SLE patients (mean age, 34.0 ± 13.7; 239 females) with available clinical data at the time of SLE onset from the lupus cohort at Chonnam National University Hospital. Sociodemographic, clinical, and laboratory data, and history of concomitant diseases were obtained. Thrombotic events were defined as the presence of arterial or venous thrombosis. The

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