Abstract FRI0289 – Tabe 1

	Age	OAC	APT	Vascular risk factors	Valvular disease	Brain stem	Frontal lobe	Strokes (≥2)	Mortality	Follow-up
CVD with APS	57,48±21,52	48%	20%	80%	20%	0%	12%	44%	40%	8,64±6,72
CVD without APS	61,16±20,6	0%	72%	68%	0%	20%	36%	16%	44%	2,04±2,99
	p 0,76	p<001	p<001	p 0,33	p 0,02	p0,02	p 0,04	p 0,03	p 0,77	p<001

Methods: Retrospective and, descriptive study of patients with APS (Sidney criteria) and CVD followed for a long period of time in a specific Systemic Autoimmune Diseases and Thrombosis Unit. Subsequently, retrospective case-control study was performed. Case definition: patients with CVD attributable to APS. Control definition: patients with CVD without APS. The controls were matched with cases by sex and age (within the same decade). Chi-square and t-student were used, using the statistical package SPSS22.0.
Results: 25 patients (25/88 28,4%) had CVD, 19 (76%) of primary APS and 6 (21%) of secondary APS. 17 patients (71,6%) were female. The mean age was 57,48±21,52 [range 13–89], with a mean follow-up of 8,64±6,72 years. 24% of patients had atrial fibrillation, 80% had one cardiovascular risk factor and 48% had two or more factors (hypertension 68%, hypercholesterolemia 36%, diabetes 20%, tabaquism 4%). Echocardiographic study was performed in 72% of patients with APS. Mitral valve was mainly involved. Most CVD were ischemic events (92%). The brain areas most involved were the basal ganglia (36%), together with the parietal and temporal lobe (16% respectively). 40% had two or more affected regions. 44% of the patients had two or more episodes of stroke. Lupus anticoagulant was positive in 40%, anticardiolipin antibodies in 76% and anti-β2 glycoproteinI antibodies in 20%.No differences were found with isotypes of APA and recurrent thrombosis or mortality. The treatment applied was oral anticoagulants (OAC) (48%), antiplatelet therapy (APT) (20%) and low molecular weight heparin (20%). In 10 patients (40%) CVD was diagnosed before APS (mean 8.64±6.7 years). The mortality was 44% and 40% of the patients were hospitalized more than once. When we compared the groups: treatment, performed echocardiogram, valvular disease, affected brain areas, recurrent strokes and follow-up time, revealed significant differences (see table 1).OAC were more used in the patients with APS and APT was the most common in control group. Valvular disease was more frequent in case group. The brainstem and the frontal lobe were the areas more affected in patients without APS.The number of strokes was higher in APS group. The patients with CVD and APS had a long-term follow-up.
Conclusions: The prevalence of CVD in our series of APS was 28.4% and most often were ischemic events. Most of the patients were women with high recurrent strokes and mortality. No differences were found with isotypes of APA and recurrent thrombosis or prognosis. CVD with APS patients had more recurrent strokes and longer follow-up.
Disclosure of Interest: None declared
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FRI0290 INTERLEUKIN 10 GENE POLYMORPHISMS IN PRIMARY SJÖGREN SYNDROME IN A TUNISIAN POPULATION

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Background: Primary Sjögren syndrome (PSS) is one of the most common auto-immune systemic rheumatic diseases although its prevalence anging between 0.6 and 1.7%. PSS affects exocrine glands and lead to sicca syndrome. Interleukin-10 (IL-10) is a pleiotropic cytokine that is involved in the inflammation process of PSS.
Objectives: The aim of our study was to determine in a Tunisian population, clinical and biological characteristics of patients with primary PSS, allelic and genotypic frequencies of (-1082G/A, -819 C/T and -592 C/A) polymorphisms in IL-10 gene and to evaluate the association of these polymorphism with PSS.
Methods: The population we studied consisted of 242 subjects with female predominance (average age at diagnosis =49 years), divided into 84 PSS patients (fulfilling the revised AECG criteria 2002 and/or ACR proposed criteria 2012),recruited in the internal medicine department of the Rabta hospital and 158 controls recruited in the Greater Tunis. Il 10 level was assessed by ELISA. Polymorphisms genotyping of the IL-10 gene was done using PCR-RFLP technique.
Results: Il10 plasma level was lower in PSS patients (23.71pg/ml, n=73) compared to healthy volunteers (42.27pg/ml, n=60) and the difference was statistically significant (p=0.01).
The genotype frequencies of our population respected Hardy-Weinberg equilibrium distribution both in patients by primary SS than in controls. In PSS patients, the genotype frequencies of -592C/A are 53% for the CC genotype, 41% for the CA and 6% for the AA genotype. In controls these frequencies are respectively 60.3%, 32.9% and 6.8%. The genotype frequencies of -1082 G/A are 29.6% for the AA genotype, 63% for the AG and 7.4% for the GG genotype. In controls these frequencies are respectively 41.5%, 52.1% and 6.3%.
The genotype frequencies of -819 C/T are 47.6% for the CC genotype, 43.9% for the CT and 8.5% for the TT genotype. In controls these frequencies are respectively 41.5%, 52.1% and 6.3%.
No significant differences in genotypic frequencies were observed between cases and controls in the three polymorphisms.
Statistical analysis preformed revealed that there was neither protective nor aggravating hapoltype. However ATC haplotype seems to have a protective impact in controls (p=0.06 and OR=0.20)
Conclusions: IL10 level was significantly higher in PSS patients in precedent studies (1) (2). In our case Il10 level was associated with PSS in Tunisian patients but it was statistically lower than controls. Our results show that the three polymorphisms of gene of IL-10 are not a marker of SGS in the Tunisian population. This result might be explained by allelic variation or ethnic group.
References:
[1] Marka M, Bessenyei B, Zeher M, Semsei I. IL-10 promoter -1082 polymorphism is associated with elevated IL-10 levels in control subjects but does not explain elevated plasma IL-10 observed in Sjogren's syndrome in a Hungarian cohort. Scandinavian journal of immunology. 2005;62(5):474–80.
[2] Vazquez-Villamar M, Palafox-Sanchez CA, Munoz-Valle JF, Valle Y, Orozco-Barocio G, Hernandez-Bello J, et al. Analysis of IL10 haplotypes in primary Sjogren's syndrome patients from Western Mexico: Relationship with mRNA expression, IL-10 soluble levels, and autoantibodies. Human immunology. 2015;76(7):473–9.
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FRI0291 CD4 AND CD8 COUNT IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS – ASSOCIATIONS WITH INFECTION AND DISEASE ACTIVITY

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Background: Systemic lupus erythematosus (SLE) is an autoimmune disease driven by the activation of autoreactive T and B cells. Decreased levels of CD4 counts were found in these patients, although there are conflicting data on whether CD4 is associated with SLE disease activity.[1,2,3]
Objectives: To investigate the associations between CD4 and CD8 counts with (1) active SLE and (2) infection in patients with SLE.
Methods: This was a cross-sectional study conducted in a rheumatology referral centre in Malaysia. Inclusion criteria included patients who fulfilled SLICC SLE classification and was admitted to rheumatology ward for active SLE or infection. We excluded patients who had overlap syndrome, retroviral disease or underlying malignancy. SLE Disease Activity Index (SLEDAI) score was assessed by the same rheumatologist.
Statistical analysis was performed using SPSS 20 and a p-value of <0.05 was considered significant. Pearson correlation was used to analyse associations between 2 continuous variables, while comparison between 2 continuous data was performed using student's t test.
Results: Forty-two patients participated in this study. Majority (90.5%) were females with a mean age of 33.05 (±11.42) years and SLE duration of 8.69 (±5.26) years. There were 40 (95.2%) ANA positive, 23 (54.8%) anti-dsDNA positive, 13 (31.0%) anti-smith positive, 24 (57.1%) low C3 and 16 (38.1%) low C4 in this cohort.
There were significant correlations between SLEDAI score and CD4 (r=-0.59, p<0.01) and CD8 counts (r=-0.57, p<0.01). CD4 and CD8 counts were significantly lower in patients with clinically active SLE vs non-active, however, there were no significant differences in CD4 and CD8 counts in patients with infection vs no infection. We also found significantly high anti-dsDNA level and low complement 3, but not complement 4, in active SLE. White cell count was significantly higher in patients with infection. The details are tabulated in Table 1.

Table 1. CD4, CD8 and other parameters in infection and active SLE

Parameters	Infection			Active SLE		
	Yes (±SD), n=21	No (±SD), n=21	p	Yes (±SD), n=26	No (±SD), n=16	p
CD4	566.05 (482.51)	510.43 (479.08)	0.71	*375.58 (348.07)*	*802.56 (544.34)*	*<0.01*
CD8	659.10 (562.91)	456.48 (221.86)	0.13	*406.0 (346.04)*	*804.44 (460.04)*	*<0.01*
SLEDAI	7.14 (7.79)	6.38 (7.13)	0.74	*10.0 (7.54)*	*1.5 (3.30)*	*<0.01*
Anti-dsDNA	110.17 (145.84)	103.14 (186.87)	0.91	*149.01 (193.48)*	*42.47 (53.62)*	*0.05*
C3	0.85 (0.47)	0.93 (0.35)	0.56	*0.78 (0.39)*	*1.06 (0.38)*	*0.03*
C4	0.21 (0.16)	0.19 (0.08)	0.53	0.19 (0.12)	0.21 (0.13)	0.56
WBC	*8.92 (3.98)*	*6.41 (2.52)*	*0.02*	7.52 (3.72)	7.90 (3.30)	0.74

Conclusions: There were significant negative correlations between SLEDAI score and CD4 and CD8 counts, with low CD4 and CD8 counts found in patients with active SLE. There were no significant differences in CD4 and CD8 counts during infection.
References:
[1] Ferreira S, Vasconcelos J, Marinho A et al. CD4 lymphocytopenia in systemic lupus erythematosus. Acta Rheumatol Port 2009; 34: 200–206.
[2] Bonelli M, Savitskaya A, von Dalwigk K et al. Quantitative and qualitative

deficiencies of regulatory T cells in patients with systemic lupus erythematosus (SLE). Int Immunol 2008; 20: 861–868.
[3] Liu MF, Wang CR, Wu CR. Decreased CD4+CD25+ T cells in peripheral blood of patients with systemic lupus erythematosus. Scand J Immunol 2004; 59: 198–202.
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FRI0292 ANTI-PHOSPHATIDYLSERINE/PROTHROMBIN (APS/PT) ANTIBODIES IN PRIMARY ANTIPHOSPHOLIPID SYNDROME

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Background: Several studies have showed conflicting results regarding the presence and meaning of anti-phosphatidylserine/prothrombin (aPS/PT). However aPS/PT antibodies seem to be a risk factor for thrombosis. Nevertheless, most of the studies have focused on patients with SLE and secondary antiphospholipid syndrome (APS).
Objectives: To assess the prevalence of aPS/PT antibodies, as well as their association with other antiphospholipid (aPL) antibodies (specially lupus anticoagulant [LA]) and thrombosis, in a well-established cohort of primary APS from a single center.
Methods: We included 96 consecutive patients with primary APS according the Sydney classification criteria and/or patients with hematological features (thrombocytopenia and hemolytic anemia) attending a referral center in Mexico City. Patients from both groups fulfilled the Sydney laboratory criteria for APS. We registered demographics, disease duration and type of manifestation. aCL (IgG and IgM), antibodies to purified human anti-β2GP-I (IgG and IgM) and aPS/PT antibodies (IgG and IgM) were assessed by ELISA (INOVA Diagnostics). LA was determined by LA/1 screening reactant and a confirmatory test LA/2 according to published guidelines. We used chi-square ($\chi 2$) test, Spearman correlation analysis and logistic regression.
Results: Most patients were females (69.7%), mean age 44.5±14.6 and median disease duration 7.3 years. The main clinical features were thrombosis (n=74, 77%), hematologic involvement (n=49 patients, 51%) and obstetric events (n=24, 25%) (non-exclusive groups). The prevalence of LA was 69.8%, aCL-IgG 56.8%, anti-β2GP-I IgG 43.1%, aCL-IgM 31.5% and anti-β2GP-I IgM 21%. The frequency of aPS/PT antibodies was 61.2% and 61.6% for IgG and IgM isotype, respectively. When we compared patients with LA+ (n=58) vs. LA- (n=25), the first group had a higher prevalence of aPS/PT-IgG (79.3% vs.16%, p=0.0001) and aPS/PT-IgM antibody (81.5% vs. 31.8%, p=0.001), as well as higher titers (aPS/PT-IgG 130.5 U vs. 8.2 U and aPS/PT-IgM 58.5 U vs. 16.6 U, p=0.0001). aPS/PT-IgG antibodies correlated with aPS/PT-IgM (ρ=0.59, p=0.0001), aCL-IgG (ρ=0.62, p=0.0001), anti-β2GP-I IgG (ρ=0.63, p=0.001) and anti-β2GP-I IgM (ρ=0.35, p=0.001). On the other hand, aPS/PT IgM antibodies correlated with aCL-IgG (ρ=0.57, p=0.0001), aCL-IgM (ρ=0.42, p=0.001), anti-β2GP-I IgG (ρ=0.48, p=0.001) and anti-β2GP-I IgM (ρ =0.59, p=0.0001). We found moderate agreement between the presence of LA and both aPS/PT isotypes (k=0.58 p=0.0001 for IgG, and k=0.47 p=0.001 for IgM). Thrombosis was associated with aPS/PT-IgG antibodies (87.7% vs. 61.1%, p=0.003) but not with aPS/PT IgM (73.6% vs. 81.8%, p=0.37). At the logistic regression analysis, the aPS/PT IgG antibodies remained associated with thrombosis after adjusting by all other aPL antibodies, OR 8.6 95% CI 2.1–33.8, p=0.002.
Conclusions: In this cohort of patients with primary APS, aPS/PT antibodies were highly prevalent, correlated with other aPL antibodies and were associated independently with thrombosis.
References:
[1] Sciascia S, Sanna G, Marru V, et al. Anti-prothrombin (aPT) and anti-phosphatidylserine/prothrombin (aPS/PT) antibodies and the risk of thrombosis in the antiphospholipid syndrome. Thrombosis Haemostasis 2014; 111:354–64.
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FRI0293 CHARACTERIZATION AND RISK ESTIMATE OF CANCER IN PRIMARY SJÖGREN SYNDROME: ANALYSIS IN 1300 PATIENTS

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Objectives: To characterize the risk of solid and hematological cancer in a large, well-characterized cohort of patients with primary Sjögren syndrome (SjS).
Methods: The GEAS-SS multicenter registry is a network of Spanish reference centers with specific clinical experience in the management of SjS patients. By January 2016, we had analyzed the development of cancer in 1300 consecutive patients fulfilling the 2002 SjS classification criteria. Multivariate Cox proportional-hazards regression analysis allowed adjustment for age at diagnosis, gender and the statistically-significant baseline variables associated with cancer in the univariate analysis. The sex- and age-specific incidence rates (SIR) of cancer were estimated from 2012 Spanish mortality data modeling, using a set of age-, sex- and site-specific incidence:mortality ratios.
Results: After a mean follow-up of 91 months (9922.3 person-years), 127 (9.8%) patients developed 133 cancers. The most frequent type of cancer was B-cell lymphoma (34% of cancers, including 27 MALT and 19 non-MALT B-cell lymphomas). Systemic activity at diagnosis of primary SjS correlated with the risk of hematological neoplasia (HR 1.06, $p<0.001$). Positive cryoglobulins at SjS diagnosis were associated with a high risk of either B-cell or non-B-cell lymphoma subtypes. Patients with cytopenias had a high risk of non-MALT B-cell and non-B-cell cancer, while those with low C3 levels had a high risk of MALT lymphomas and those with monoclonal gammopathy and low C4 levels had a high risk of non-MALT B-cell lymphomas. The estimated SIR for solid cancer was 1.13 (95% CI 0.88–1.46) and 11.02 (95% CI 8.35–14.54) for hematological cancer. SIRs for specific cancers were 36.17 (95% CI 25.44–51.43) for multiple myeloma and immunoproliferative diseases, 19.41 (95% CI 7.29–51.72) for Hodgkin lymphoma, 6.04 (95% CI 3.43–10.64) for other non-Hodgkin lymphomas, 5.17 (95% CI 1.94–13.79) for thyroid cancer, 4.81 (95% CI 1.81–12.83) for cancers of the lip and oral cavity and 2.53 (95% CI 1.05–6.07) for stomach cancer.
Conclusions: One third of cancers developed by patients with primary SjS are B-cell lymphomas. The prognostic factors identified at SjS diagnosis differed according to the subtype of B-cell lymphoma developed. Primary SjS is also associated with an enhanced risk of development of some types of non-hematological cancers (thyroid, oral cavity and stomach).
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FRI0294 ULTRASOUND OF THE SALIVARY GLANDS HELPS TO DISTINGUISH BETWEEN PRIMARY AND SECONDARY SJÖGREN SYNDROME

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Background: Previous studies have demonstrated typical findings in the ultrasound of salivary glands (USG) in patients with primary Sjögren syndrome (pSS) compared with healthy controls. However, it is unknown, if these findings are only seen in patients with pSS but also in patients with secondary Sjögren syndrome (sSS) or other connective tissue diseases with positive Ro-SSA/La-SSB antibodies.
Methods: We used an ultrasound score developed by Zhang [1] to investigate salivary glands with a score ranging from 0–48. We compared the score from patients with pSS according the criteria of the American-European Consensus Group (group 1) with patients who fulfilled the clinical criteria (1–4), but were Ro-SSA/La-SSB negative (group 2), with patients who had another rheumatic disease, but had sicca symptoms and were Ro-SSA and/or La-SSB positive (sSS) (group 3), with patients with other rheumatic disease without Ro-SSA or La-SSB antibodies (group 4), with patients with other rheumatic disease with Ro-SSA antibodies but no sicca symptoms (group 5) and with patients with no rheumatic disease (group 6), respectively. We investigated the parotid and the submandibular salivary glands bilaterally. The USG was assessed with a score from 0–48 points with a maximum of 12 points for 4 items each (hyoechoic areas, hyperechoic reflexes, inhomogeneity and distinct organ border). If available the score was correlated with the scintigraphically measured function of the salivary glands.
Results: We included USG of 92 patients in our study. Group 1 (n=33) had a score of 16.6±11.6; group 2 (n=7) 2.4±3.5; group 3 (n=16) 8.6±9.5; group 4 (n=16) 5.3±7.8; group 5 (n=11) 4.5±6.7 and group 6 (n=9) 1.5±2.3, respectively. The score between group 1 and all other groups was significantly different ($p<0.01$), with no significant differences between all other groups. In 25 patients a scintigraphy of the salivary glands was available. The excretory function in the scintigraphy highly significantly correlated with the ultrasound score (r=0.53, $p<0.001$).
Conclusions: USG showed significantly higher scores in patients with pSS, than in patients with sSS or other rheumatic disease. USG as a non invasive investigation might be similarly helpful for the diagnosis of pSS like salivary gland functional tests. USG findings can reliable distinguish between pSS and sSS associated with other rheumatic disease, also if they are positive for Ro-SSA/La-SSB.