Fig.1 The prevalence of autoantibodies in SN-APS **Fig.2** The percentage of SN-APS positive for more than one test

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FRI0146

SLICC/ACR DAMAGE INDEX IN PATIENTS WITH ANTIPHOSPHOLIPID SYNDROME WITH AND WITHOUT SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: The role of antiphospholipid syndrome (APS) as a cause of chronic organ damage in patients with systemic lupus erythematosus (SLE) is important. While acute disease manifestations of APS are well known, information on the long-term prognosis and damage in affected patients is still very limited.

Objectives: To assess the severity of organ damage in patients with APS without SLE and with concomitant SLE, as well as the feature of irreversible damage to internal organs in patients with primary APS during a dynamic observation using SLICC/ACR Damage Index (SDI).

Methods: The study included 195 patients (41 men and 154 women) who were observed at the Institute of Rheumatology from 2007 to June 2018 with a diagnosis of SLE and APS. The study inclusion criteria were: a follow-up period of at least 3 years with the study of serological markers of APS for previous years, the possibility of dynamic monitoring of patients, patient consent. Patients were divided into 3 groups, depending on presence of APS: group I - SLE with APS (n=99 with average age 34.6 [25-44]), group II - SLE without APS (n=45; 33.5[26-42]) and group III - 45 (average age 37.7 [27-46]) patients with primary APS (PAPS) diagnosed according to international diagnostic criteria, without signs of any disease. In all three groups organ damage was assessed using SDI. SDI 1-2 points corresponded to moderate damage, more than 2 points - to severe.

Results: A linear increase in irreversible organ damage was noted over 10 years of follow-up. At the time of inclusion in the study, the average SDI was significantly higher in the SLE + APS group than in the SLE group: 1.32 versus 0 when included ($p < 0.0001$). A direct correlation was found between the age of patients and the value of SDI both in the group I ($p = 0.004$, $r = 0.284$) and in the group II ($p = 0.04$, $r = 0.281$) when included in the study. There was a direct correlation between the activity of the disease on the SLEDAI at the end of the study and the value of SDI ($p = 0.03$, $r = 0.41$) in the group II. The number of patients by the 10th year of follow-up remained in group I were 44 of 99, in group II - 24 of 51 and in group III - 14 of 45. SDI was more than 2 points in 39 (89%) of 44 patients in group I, in 12 (50%) of 24 in group II and 9 (65%) of 14 in Group III ($p = 0.0002$ OR=13; 95% CI 2.4-70). 5 years after the start of the observation average SDI in group I and II was 2.5 and 1.3 ($p < 0.0001$) and after 10 years - 2.8 and 1.9 ($p = 0.0008$) accordingly. An increase of total SDI occurred primarily due to damage to peripheral vessels due to the large number of thromboses (in 55% of patients) in the group II. Using step-by-step multiple logistic regressions in the study groups only APS was an independent predictor of increased SDI. The most common cause of an increase in SDI in the PAPS group was damage to peripheral vessels (64%) as a result of a high frequency of venous thrombosis, followed by damage to the neuropsychiatric system (55%) and the cardiovascular system (40%).

Conclusion: APS is an independent predictor of increased SDI. The determination of irreversible organ damage in patients with PAPS using SDI allows us to assess the functional disorders of organs and systems and can be used in clinical practice in these patients.

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FRI0147

PREVALENCE OF COMORBIDITIES IN ANTIPHOSPHOLIPID SYNDROME VERSUS RHEUMATOID ARTHRITIS: A MULTICENTRE, AGE- AND SEX-MATCHED STUDY

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Background: Comorbidities in rheumatic diseases (RDs) have been associated with increased morbidity and mortality. Evidence on prevalence of comorbidities in antiphospholipid syndrome (APS) and its difference from high comorbidity burden RDs is limited.

Objectives: To compare the prevalence of common comorbidities between APS [primary (PAPS) and Systemic lupus erythematosus (SLE)-APS] and Rheumatoid arthritis (RA) patients.

Methods: 326 APS patients from the Greek registry (237 women, mean age 48.7±13.4 years, 161 PAPS) were matched 1:2 for age and sex with 652 RA patients from Greek RA Registry. Prevalence of cardiovascular (CV) risk factors, stroke, coronary artery disease (CAD), osteoporosis, diabetes mellitus (DM), Chronic obstructive pulmonary disease (COPD), depression and neoplasms were compared between APS and RA using logistic regression analysis.

Results: Regarding CV burden, hyperlipidemia and obesity (BMI≥30) were comparable while hypertension, smoking, CAD and stroke were more prevalent in APS compared to RA patients (Table 1). Osteoporosis and depression were more frequent in APS while DM, COPD and neoplasms were comparable between two groups. Comparison of APS subgroups to 1:2 matched RA patients revealed that smoking and stroke were more prevalent in PAPS and SLE-APS vs RA. Hypertension, CAD and osteoporosis were more prevalent only in SLE-APS vs. RA while DM was less prevalent in PAPS vs. RA patients.

Table 1. Comparison of comorbidities between Antiphospholipid syndrome (APS) vs. matched Rheumatoid Arthritis (RA) patients and between primary APS (PAPS) or Systemic Lupus Erythematosus-APS (SLE-APS) vs matched RA patients

	APS	RA	OR*	PAPS	RA	OR	SLE-APS	RA	OR
n (%)	326	652		161	322		165	330	
Hypertension	97 (29.8)	136 (21)	1.61 (1.19-2.18)	40 (25)	75 (23.3)	1.09 (0.70-1.69)	57 (34.6)	61 (18.5)	2.33 (1.52-3.56)
Smoking	175 (53.7)	264 (40.5)	1.70 (1.30-2.22)	87 (54)	142 (44)	1.49 (1.02-2.18)	88 (53.3)	122 (37)	1.95 (1.33-2.85)
Hyperlipidemia	79 (24.2)	135 (20.7)	1.23 (0.89-1.68)	40 (24.8)	62 (19.3)	1.39 (0.88-2.18)	39 (23.6)	73 (22)	1.09 (0.70-1.70)
Obesity	48 (20.5)	105 (19.5)	1.06 (0.73-1.56)	20 (17)	51 (19)	0.86 (0.49-1.52)	28 (24)	54 (19.7)	1.28 (0.76-2.15)
Stroke*	66 (20.3)	9 (1.4)	13.8 (6.5-29.1)	36 (22.4)	4 (1.2)	19.9 (6.6-59.9)	30 (18.2)	5 (1.5)	7.8 (2.7-22.6)
Coronary disease*	16 (4.9)	13 (2)	3.14 (1.17-8.45)	2 (1.2)	7 (2.2)	0.46 (0.04-4.77)	14 (8.5)	6 (1.8)	10.9 (2.7-44.3)
Osteoporosis*	66 (20.3)	92 (14)	1.45 (1.01-2.06)	19 (11.8)	42 (13)	0.96 (0.54-1.73)	47 (28.5)	50 (15)	1.91 (1.20-3.05)
Diabetes*	18 (5.5)	58 (9)	0.58 (0.33-1.01)	5 (3)	29 (9)	0.34 (0.13-0.89)	13 (8)	29 (9)	0.88 (0.44-1.79)
COPD*	11 (3.4)	14 (2.2)	1.26 (0.56-2.84)	3 (1.9)	6 (2)	0.96 (0.23-4.0)	8 (5)	8 (2.4)	1.28 (0.44-3.72)
Depression*	53 (16.3)	66 (10)	1.70 (1.15-2.53)	23 (14)	30 (9.3)	1.69 (0.93-3.05)	30 (18.2)	36 (10.9)	1.65 (0.96-2.84)
Neoplasms	14 (4.3)	27 (4.1)	1.05 (0.54-2.06)	5 (3)	12 (3.7)	0.84 (0.28-2.52)	9 (5.5)	15 (4.6)	1.31 (0.55-3.1)

* OR: Odds ratio, crude or adjusted for:

± age, sex, smoking, hypertension, hyperlipidemia, BMI, corticosteroid (Cs) duration

× Cs duration

± smoking, Cs duration

* sex, disease duration, Cs duration

* age, disease duration

Conclusion: Comorbidity burden in APS (PAPS and SLE-APS) is comparable or even higher to that in RA, entailing a high level of diligence for CV risk prevention, awareness for depression and corticosteroid exposure minimization.

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FRI0148 SEROLOGICAL PROFILES IN PRIMARY SJÖGREN SYNDROME, SJOGRENSER PROJECT

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Objectives: Primary Sjögren's Syndrome (pSS) is characterized by hyperactivity of the B cell, with the consequent production of autoantibodies. The presence of anti-Ro and anti-La has been associated with extraglandular manifestations and lymphoma development. The aim of this study is to evaluate the frequency of different serological profiles in patients of SJOGRENSER registry and to assess whether the combination of antibodies and serological markers are associated with the development of systemic disease and the systemic illness and/or the development of systemic disease and complications.

Methods: SJOGRENSER is a transversal multicenter study with pSS patients (patients who meet 2002 pSS classification criteria); it is collected demographic, clinical, serological data and the activity index: ESSDAI and ESSPRI. It was established three serological profiles: 1. ANA/Ro+ with La/Rf-; 2. ANA/Ro/La+ with Rf-; 3. ANA/Ro/La/Rf+. A descriptive analysis was done, with means and standard deviations, frequencies and proportions. Student t for quantitative variables and Chi2 for qualitative ones were performed to evaluate differences between groups, it was considered a p < 0.05 as significant. The association was analyzed by multinomial analysis.

Results: Four hundred and thirty-seven patients were included, the most frequent serological patterns observed were: ANA/Ro/La/Rf+ 221 patients (50.5%), ANA/Ro/La+ 61 patients (13.9%) and ANA/Ro+ 60 patients (13.7%). There were only two patients with ANA/La+. The ESSDAI score was significantly associated with the profile ANA/Ro/La/Rf+ (6 vs 4, p=0.007) and the group with the ANA/Ro/La+ profile reached an ESSDAI < 5 (79%, p=0.043) (Table 1).

Table 1. Serological markers associated with the development of systemic disease

Involvement	Profile 1 ANA + Anti-Ro + Anti-La - RF - n=60 Nº (%)	Profile 2 ANA + Anti-Ro + Anti-La + RF - n= 61 Nº (%)	Profile3 ANA + Anti-Ro + Anti-La + RF + n= 221 Nº (%)	p
ESSDAI index	4	4	6	0.007
ESSDAI < 5	44 (73.3)	48 (78.7)	139 (63.2)	0.043
ESSPRI index	6.1	5.3	5.0	0.007
Constitutional syndrome	5 (8.3)	9 (14.8)	51 (23.1)	0.023
Lymphadenopathy	8 (13.3)	9 (14.8)	37 (16.7)	0.790
Glandular	14 (23.3)	16 (26.2)	87 (39.4)	0.024
Articular	49 (81.7)	40 (65.6)	187 (84.6)	0.004
Lung	3 (5.0)	4 (6.6)	29 (13.2)	0.100
Kidney	0 (0)	5 (8.2)	31 (14.1)	0.006
Peripheral nervous system	5 (8.3)	6 (9.8)	18 (8.2)	0.918
Central nervous system	4 (6.7)	7 (11.5)	13 (5.9)	0.320
Hematological	24 (40.0)	26 (42.6)	147 (66.5)	<0.001
Biologic	5 (8.3)	4 (6.6)	26 (11.8)	0.428
Lymphoma	1 (1.7)	2 (3.3)	3 (1.4)	0.598

In contrast to the ESSPRI index was lower significantly associated with the profile ANA/Ro/La/Rf+ and higher in the ANA/Ro+ (5 vs 6.1, p=0.007). The presence of antiLa and/or RF to the profile ANA/Ro+ rises the percentage of patients with constitutional syndrome, glandular, kidney and hematological affectation with statistically significant differences. The percentage of patients with articular involvement it was similar in the profiles ANA/Ro+ and ANA/Ro/La/Rf+.

The multinomial analysis showed that the profile ANA/Ro/La/Rf+ was associated with higher ESSDAI values (OR=1.09 (1.01-1.17)). The hematological involvement was associated with the profiles ANA/Ro/La/Rf+ (OR= 2.76 (1.46-5.22)). Higher scoring of ESSPRI was associated with the profile ANA/Ro+ (OR=0.79 (0.69-0.91)).

Conclusion: The most frequent serological profile was ANA/Ro/La/Rf+ and it was associated with higher ESSDAI score. The presence of antiLa and/or RF with an ANA/Ro+ increased the presence of systemic involvement. The ANA/Ro+ profile was associated with a higher level of ESSPRI.

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FRI0149 THE CLINICAL FEATURES OF SJÖGREN'S SYNDROME PATIENTS WITH EARLY AND LATE DISEASE ONSET

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