

patients with primary APS, 54 patients with positive aPL serology not meeting clinical criteria for APS and 326 healthy controls adjusted by the month of vitamin D analysis. We considered 30 ng/ml and 10 ng/ml as the thresholds for vitamin D insufficiency and deficiency, respectively.

Results: Median levels of vitamin D were similar in the three groups: 21 (range 5–69) in primary APS, 25 (4–50) in the aPL-positive group, and 21 (4–105) in controls. Overall, 53.9% of measurements were performed during the sunny season (April to September). Ten percent of patients with primary APS were males, versus 16% in the aPL serology group and 26% among healthy controls ($p=0.007$). Mean age was 46 ± 15 in primary APS, 49 ± 17 in the aPL-positive group and 53 ± 10 in the control group ($p<0.001$). Regarding vitamin D insufficiency, 82% of APS patients had levels of vitamin D (<30 ng/ml) versus 70% and 72% of patients with aPL serology and controls, respectively ($p=0.168$). When analyzing the prevalence of vitamin D deficiency (<10 ng/ml), we found significant differences across the groups: 16.2% in patients with primary APS, 11.1% in patients with positive serology and only 4.9% in healthy controls ($p=0.002$). There was no significant association between insufficient levels of vitamin D and the presence of thrombotic or obstetric events. Nevertheless, we found a trend for the presence of more thrombotic events in patients with vitamin D deficiency ($p=0.097$). Regarding the immunological profile, we found no association between vitamin D and either the number of positive antibodies or their serological evolution. However, we found an association between insufficient levels of vitamin D and the presence of lupus anticoagulant (54.7% vs 18.2%, $p=0.047$).

Conclusions: More than 80% of patients with primary APS have insufficient levels of vitamin D and 16% of them have very low levels of vitamin D.

Primary APS patients show a higher frequency of vitamin D deficiency than healthy controls.

Patients with vitamin D insufficiency have more commonly positivity for lupus anticoagulant.

Disclosure of Interest: None declared

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AB0512 EPIDEMIOLOGICAL, CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS OF ANTIPHOSPHOLIPID SYNDROME: STUDY OF 170 PATIENTS

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Background: Antiphospholipid syndrome (APS) is an autoimmune disease defined by the presence of antiphospholipid antibodies (aPL) and thrombosis and/or pregnancy morbidity. Although thrombotic and obstetric APS are considered the same disorder, there are pathogenetic and clinical differences between them.

Objectives: To describe the epidemiological, clinical and immunological characteristics of a cohort of APS patients from a defined population and to study the differences between thrombotic, obstetric and mixed APS.

Methods: Retrospective study including patients attending the rheumatology and the obstetric clinics of a tertiary facility in Northern Spain. All patients met APS classification criteria.

Results: We included 84 patients with thrombotic APS, 76 with obstetric APS and 10 with mixed APS. Main demographical characteristics are showed in table. There were differences in the age of discovery a positive serology (46 ± 15 yr in thrombotic APS, 36 ± 8 yr in obstetric, and 36 ± 14 in mixed APS). Moreover, the prevalence of systemic lupus erythematosus (SLE) was higher in patients with thrombotic and mixed APS (26% and 30% vs 5% in obstetric APS, $p=0.001$). Anticardiolipin antibodies were, overall, the most frequently positive. Lupus anticoagulant was significantly more common in patients with thrombotic and mixed APS (70% and 71% vs 30% in obstetric APS, $p=0.002$). We found no differences in the load

	Total 170	Thrombotic APS 84	Obstetric APS 76	Mixed APS 10	P
Age (yr), mean \pm SD	41.2 \pm 13.7	46.5 \pm 15.5	35.9 \pm 8.1	36.5 \pm 14.4	<0.001
SLE, n (%)	29 (17)	22 (26)	4 (5)	3 (30)	0.001
Load of antibodies					
- 1	63 (37)	24 (29)	34 (45)	5 (50)	
- 2	68 (40)	37 (44)	28 (37)	3 (30)	
- 3	38 (22)	23 (27)	13 (17)	2 (20)	
aCL	130 (77)	67 (80)	54 (72)	9 (90)	0.306
aB2Gp1	108 (64)	56 (67)	49 (65)	3 (30)	0.070
LA	53 (58)	40 (70)	8 (30)	5 (71)	0.002
Family history of thrombosis, n (%)	21 (19)	14 (29)	4 (7)	3 (50)	0.011
Traditional CV risk factors, n (%)					
Tobacco use	69 (41)	37 (44)	28 (37)	4 (40)	0.650
Hypertension	55 (32)	41 (49)	10 (13)	4 (40)	<0.001
Dyslipidemia	48 (28)	39 (46)	5 (7)	4 (40)	<0.001
Diabetes mellitas	8 (5)	4 (5)	4 (5)	0	0.761
Previous treatment, n (%)					
Heparin	88 (52)	28 (33)	54 (72)	6 (60)	<0.001
Oral anticoagulants	71 (42)	62 (74)	3 (4)	6 (60)	<0.001
Antiplatelet therapy	145 (86)	63 (76)	74 (97)	8 (80)	<0.001
Corticoids	5 (3)	5 (6)	0	0	0.072
Antimalarials	47 (28)	31 (37)	13 (17)	3 (30)	0.020
Immunosuppressants	5 (3)	4 (5)	1 (1)	0	0.371

of antibodies between the three groups. Regarding traditional cardiovascular risk factors (CVRF), tobacco use was the most common, followed by hypertension and dyslipidemia. The last two factors were more frequent in patients with thrombotic and mixed APS than in those with obstetric APS ($p<0.001$). As expected, treatment with heparin was more frequent in obstetric and mixed APS, while oral anticoagulants were more frequently used in thrombotic APS. Antimalarial drugs were less frequently used in obstetric APS (17% vs 37% and 30%, $p=0.020$), probably due to a lower prevalence of lupus in this group.

Conclusions: In our cohort, patients with thrombotic or mixed APS have a higher frequency of SLE than patients with obstetric APS. Positivity for lupus anticoagulant is more common in patients with thrombotic or mixed APS. Regarding traditional CVRF, hypertension and dyslipidemia are more common in patients with thrombotic or mixed APS.

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AB0513 FATIGUE IN CHINESE PATIENTS WITH PRIMARY SJÖGREN'S SYNDROME: A CROSS SECTIONAL STUDY

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Background: Primary Sjögren's syndrome (pSS) is the second most common systemic autoimmune disease, with a female-male ratio of 9:1, and characterized by sicca symptoms of the eyes and mouth, including joint pains and multi-system involvement. pSS affects patients' health-related quality of life (QoL), mental status and relationships with family. In pSS patients, symptoms such as fatigue, depression, arthralgia, fibromyalgia and general loss of well-being are commonly reported. Among them, fatigue is the most common problem that includes physical and mental fatigue, it can be as disabling as pain, which is difficult to manage and has a notable impact on QoL. Fatigue is a tiredness which may be mental, physical, or both, and that results in an inability to function at normal performance levels. However, the underlying pathophysiological mechanisms of fatigue remain unclear. A number of studies have reported the association of fatigue with Primary Sjögren's syndrome (pSS), whereas, because of the small sample size of pSS patients, we still lack large sample studies to find the relationship between pSS and fatigue.

Objectives: To investigate the relationship of fatigue severity to other clinical features in primary Sjögren's syndrome (pSS) and to identify factors contributing to the physical and mental aspects of fatigue in Chinese patients.

Methods: Sixty-seven consecutive patients with PSS according to the American-European Consensus group (AEGG) criteria were included. Demographic, clinical and biological characteristics for all patients were collected. The Fatigue Severity Scale (FSS), Profile of Fatigue (ProF), Visual analogue scale, Hospital Anxiety and Depression Scale (HADS), OHIP-14 Scale, MDADI Scale and PSQI Scale were adopted to assess fatigue, depression, anxiety, xerostomia, xerophthalmia and sleep disturbances. Associations with fatigue were compared using multivariate regression.

Results: 94% of our patients were women. The mean age of patients was 51.13 ± 13.23 years, and the mean disease duration was 4.12 ± 4.49 years. The mean oral dryness was 51 ± 17.82 , and the mean ocular dryness was 33.56 ± 26.3 . Abnormal fatigue, defined as an FSS score >4 , was present in 64% of the patients. Dry symptoms, low educational level, Pain and depression had a negative impact on fatigue scores. The regression models explained that Pain and depression were the strongest predictors of fatigue according to the FSS.

Conclusions: Fatigue is a tiredness which may be mental, physical, or both, and that results in an inability to function at normal performance levels. However, the underlying pathophysiological mechanisms of fatigue remain unclear. From our study, we found that psychosocial variables are determinants of fatigue, and fatigue is associated with depression, but depression is not the primary cause of fatigue in primary SS. Therefore, the investigation of the pathophysiologic correlates of physical and mental aspects of fatigue is needed to guide the development of more effective interventions.

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AB0514 THE RELATIONSHIP BETWEEN SERUM LEVEL OF C-TERMINAL TELEPEPTIDE OF TYPE I COLLAGEN WITH COURSE OF SYSTEMIC LUPUS ERYTHEMATOSUS AND STRUCTURAL AND FUNCTIONAL STATE OF BONE TISSUE

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Background: It is well known, that the incidence of osteoporosis in patients with systemic lupus erythematosus (SLE) is higher compared to the population level. Its severity in patients with SLE is associated with a number of factors: female gender, disease activity, damage index, glucocorticoid therapy etc. One of metabolic factors indicating the reducing bone mineral density (BMD) is the level