(19.5% vs. 0%, $p=0.04$). BMI and the SLICC score were independent predictors of OSA ($p=0.03$ and $p=0.02$ respectively). A correlation between SLEDAI and moderate-severe OSA was found ($p=0.03$), although an association to medications, secondary fibromyalgia and depression was not found.

Conclusion: Patients with SLE have increased prevalence of OSA with lower sleep quality compared to healthy controls. Our findings suggest a possible correlation between accrued damage as assessed by the SLE damage index and OSA.

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Table 1. WatchPAT sleep parameters analysis

	SLE group n = 42	Control group n = 20	P value
RDI $\pm$ SD	13.52 $\pm$ 6.54	9.72 $\pm$ 3.60	0.04
AHI $\pm$ SD	9.19 $\pm$ 6.79	3.95 $\pm$ 3.47	0.004
ODI $\pm$ SD	2.54 $\pm$ 2.72	1.27 $\pm$ 1.45	0.04
Sleep efficiency (%) $\pm$ SD	83.38 $\pm$ 6.15	87.22 $\pm$ 4.24	0.03
Number of arousals $\pm$ SD	7.72 $\pm$ 5.66	5.13 $\pm$ 2.29	0.01
Saturation (%) $\pm$ SD	96.10 $\pm$ 1.37	95.75 $\pm$ 1.39	0.45
Sleep latency $\pm$ SD	21.25 $\pm$ 9.33	18.46 $\pm$ 6.63	0.27
REM latency $\pm$ SD	87.88 $\pm$ 49.06	73.60 $\pm$ 46.21	0.09
REM $\pm$ SD	25.35 $\pm$ 14.03	27.32 $\pm$ 6.79	0.15
Light sleep $\pm$ SD	57.63 $\pm$ 12.37	52.70 $\pm$ 11.63	0.18
Deep sleep $\pm$ SD	17.89 $\pm$ 5.59	18.76 $\pm$ 6.70	0.54

SLE, Systemic Lupus Erythematosus; RDI, Respiratory Disturbance Index; SD, Standard Deviation; AHI, Apnea Hypopnea Index; ODI, Oxygen Desaturation Index; REM Rapid Eye Movement.

Disclosure of Interests: None declared

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AB0313

THE CLINICAL CHARACTERISTICS OF PATIENTS WITH IMMUNE-ASSOCIATED ADVERSE PREGNANCY

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Background: Immune-associated adverse pregnancy is the adverse pregnancy outcomes induced by autoimmune factors or autoimmune diseases, including infertility, recurrent spontaneous abortion, failed assisted reproduction, fetal growing restriction. It is helpful to explore the mechanism and improve the management by analyzing the clinical characteristics of patients with immune-associated adverse pregnancy.

Objectives: To find the risk factors of Immune-associated adverse pregnancy by analyzing the clinical characteristics of patients with immune-associated adverse pregnancy.

Methods: The patients involved in this study were from the multi-department clinic of immune-associated adverse pregnancy, during April 2019 and August 2020. They were diagnosed with autoimmune diseases according to relative classification standards or with autoimmune abnormality. Patients with adverse pregnancy due to anatomic, endocrine, infectious and chromosomal factors were excluded.

Results: A total of 107 patients were included. The average age was 29.3 years old. The number of total adverse pregnancy was 115 and the average was 1.07. For the diagnosis, 22 (22.4%) were autoimmune abnormality (with autoantibody but cannot be classified to any autoimmune disease), 30 (28.0%) were antiphospholipid syndrome (APS), 17 (15.9%) were systemic lupus erythematosus (SLE), 13 (12.1%) were mixed connective tissue disease (MCTD), 8 (7.5%) were undifferentiated connective tissue disease, 5 (4.7%) were Sjogren syndrome (SS), other autoimmune disease account for 10 (9.4%). For the antibodies, the positive rate of ANA was 44.8% (48/107), anti-SSA 36.4% (39/107), anti-RNP 15.0% (16/107), anti-dsDNA 8.4% (9/107), anti-Sm 9.3% (10/107), anticardiolipin antibody 17.8% (19/107), anti-B2GP1 24.3% (26/107), LA 8.4% (9/107), non-criteria antiphospholipid antibody 3.7% (4/107).

Conclusion: Our data showed that autoimmune abnormality, SLE, APS, MCTD and SS impacted immune-associated adverse pregnancy the most. The most

crucial antibodies were ANA, anti-SSA, anti-RNP, anti-dsDNA and antiphospholipid antibodies.

Disclosure of Interests: None declared

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AB0314

SEMAPHORIN 3A LEVELS IN LUPUS WITH AND WITHOUT SECONDARY ANTIPHOSPHOLIPID ANTIBODY SYNDROME AND RENAL INVOLVEMENT

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Background: In this study, we aimed to evaluate sema3A levels in SLE patients with and without renal involvement or secondary antiphospholipid antibody syndrome (APS), to further elucidate the contribution of sema3A in etiopathogenesis of these conditions.

Objectives: Aim of this study is to evaluate sema3A levels in systemic lupus erythematosus patients (SLE) with and without renal involvement and secondary antiphospholipid antibody syndrome (APS).

Methods: SLE patients were grouped according to presence of secondary APS or renal involvement. The control group consisted of age-matched, non-smoker, healthy volunteers. Sema3A levels were compared among groups. All SLE patients were regrouped according to presence of thrombotic events, miscarriages and proteinuria and sema3A levels were investigated. Finally, sema3A levels of all SLE patients as a single group were compared to controls.

Results: The mean sema3A values were 16.16 $\pm$ 2.84 ng/dL in the control group, 11.28 $\pm$ 5.23 ng/dL in SLE patients without nephritis and APS, 9.05 $\pm$ 5.65 ng/dL in SLE with APS group, and 8.53 $\pm$ 5.11 ng/dL in lupus nephritis group. When all three patient groups were examined as a single group, mean sema3A value was significantly lower than that of the control group. Sema3A was reduced in SLE patients with thromboembolism and/or miscarriage.

Conclusion: Sema3A levels were lower in all patient groups compared to the control group. Moreover, the reduced sema3A levels in patients with a history of thromboembolism and/or miscarriage suggests that sema3A may play an important role in the pathogenesis of vasculopathy.

Table 1. Comparison of sema3A levels between SLE patient groups and control subjects

	Patient groups				p
	Group A (N=20)	Group B (N=20)	Group C (N=19)	Control (N=19)	
Sema3A, ng/dL, mean $\pm$ SD	9.05 $\pm$ 5.65	11.28 $\pm$ 5.23	8.53 $\pm$ 5.11	16.16 $\pm$ 2.84	Group A vs control <0.001
Group B vs control <0.001					Group C vs control <0.001
Group A vs B = 0.203					Group A vs C = 0.766
Group B vs C = 0.106					
All patients (N=59) 16.16 $\pm$ 2.84					<0.001
			Control (N=19) Patients with thrombotic events and/or miscarriages (N=31)	9.64 $\pm$ 5.38 Patients without thrombotic events and/or miscarriages (N=48)	
0.032		9.96 $\pm$ 5.11		12.33 $\pm$ 5.84	<0.001
Patients with proteinuria and/or thrombotic events and/or miscarriages (N=45) 14.91 $\pm$ 4.50			Patients without protein- uria and/or thrombotic events and/or miscarriages (N=34)	9.05 $\pm$ 5.09	

Disclosure of Interests: None declared

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AB0315

DISEASE DAMAGE ACCRUAL AND LOW BONE MINERAL DENSITY IN FEMALE PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Osteoporosis is a common comorbidity in patients with systemic lupus erythematosus (SLE). Available evidence showed that autoimmunity and associated inflammation play main effect in the pathogenesis of negative skeletal effects in SLE patients. However, the potential contribution of disease-associated factors to bone status in SLE is not well known since the reported risk factors from different studies differ greatly.

Objectives: The aim of this study was to examine frequency of reduced bone mass in SLE women, and determine their potential associations with disease activity, damage accrual and SLE-related clinical markers.

Methods: A cross-sectional study including a total 121 Caucasian pre-menopausal and postmenopausal women was conducted (mean age 49.29±12.43 years). The SLE Disease Activity Index (SLEDAI-2K) and the SDI Damage Index were used to assess disease activity and disease-related damage, respectively. Bone mineral density (BMD) of the left femoral neck and lumbar spine (L2–L4) were measured by dual-energy X-ray absorptiometry (Hologic QDR 400).

Results: Ten patients (8.3%) had osteoporosis, 63 (52.1%) patients had osteopenia and 6.8% of women had history of previous fracture. Patients with low bone mass had a significantly higher mean SDI (1.36±1.26 versus 0.70±1.09 p=0.003). T-score at lumbar spine was inversely correlated with SDI score (r=-0.222, p=0.014) and complement C3 level (r=-0.206, p=0.024). Results of bivariate correlations showed that T-score at lumbar spine was inversely correlated with SDI score (r=-0.222, p=0.014) and complement C3 level (r=-0.206, p=0.024). SDI scores were significantly different between patients with osteoporosis, osteopenia and normal BMD after adjusting for age, menstrual status, BMI, time since diagnosis and corticoid use (p=0.004).

Conclusion: There is a high prevalence of low BMD in Caucasian women with SLE and this status of osteopenia/osteoporosis was associated with higher damage accrual scores, supporting that disease damage may itself be a major contributor to the low BMD. SLE women with organ damage require regular bone status monitoring to prevent further musculoskeletal damage. Since diminished BMD is a main comorbidity it is therefore essential to study, monitor and prevent osteoporosis in SLE women to avoid fractures leading to reduced quality of life.

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AB0316

ADHERENCE TO THE MEDITERRANEAN DIET AND ITS ASSOCIATION WITH DISEASE ACTIVITY AND DAMAGE ACCRUAL IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: There is limited evidence regarding the impact of the Mediterranean Diet (Med Diet) on autoimmune diseases although it has been proposed that adherence to the Med Diet may decrease the risk of certain autoimmune diseases. However, the potential usefulness of the Med Diet as a high-quality dietary pattern for other autoimmune diseases such as SLE has not yet been investigated.

Objectives: The aim of this study was to evaluate the potential association between the adherence to the Med Diet and disease activity, damage accrual and SLE-related clinical markers in a large cohort of women with SLE.

Methods: In this cross-sectional study, we assessed Med Diet adherence through a 14-item questionnaire in 253 women with SLE (mean age 46.74 ± 12.70 years). The SLE Disease Activity Index (SLEDAI-2K) and the SDI Damage Index were used to assess disease activity and disease-related damage, respectively. Levels of C-reactive protein (CRP; mg/dL), homocysteine (Hcy; mol/L), anti-double stranded DNA antibodies (anti-dsDNA) (IU/mL), complement C3 (mg/dL), and complement C4 (mg/dL) were determined.

Results: The Med Diet adherence score was classified as follows: low adherence (≤ 5 points); medium adherence (6–9 points) and good adherence (≥ 10 points). Only 50.2% of the SLE women had good adherence to the Med Diet. The ANCOVA models showed significant differences between patients with good adherence to the Med Diet and those with medium and low adherence in SLEDAI (p ≤ 0.001) and SDI (p ≤ 0.001). Age, medical treatment (immunosuppressors, corticoids, or antimalarials), smoking status, and body mass index (BMI) were included as confounding factors. The odds ratio (OR) for having active SLE (SLEDAI ≥ 5) or the presence of damage (SDI ≥ 1) was lower among patients whose Med Diet score was higher (p ≤ 0.001).

Conclusion: Adherence to the Med Diet influences disease activity and damage accrual in SLE women. Thus, these patients would benefit from nutritional counselling and education on modification, to help adapt their lifestyles towards the Med Diet pattern. This would help slow the progression of SLE and the damage it causes.

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AB0317

ADHERENCE TO MEDITERRANEAN DIET AND NUTRITIONAL STATE IN ITALIAN WOMEN WITH ISOLATED SJÖGREN'S SYNDROME

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Background: The Mediterranean Diet (MD) has anti-inflammatory and immunomodulatory effects^{1,2} suggesting a protective role in rheumatic diseases. There is limited knowledge about the eating habits and the nutritional state in patients with isolated Sjögren Syndrome (SS) living within the Mediterranean area.

Objectives: assessment of adherence to the MD and analysis of the nutritional state in women with SS and their correlations with the clinical, laboratory and histological data of the disease.

Methods: patients classified as isolated SS according to AECG criteria 2002³ who had undergone to minor salivary gland biopsy during the previous twelve months were consecutively enrolled during follow-up visits. The adherence to the MD was assessed by the Med Diet (MDiet)⁴ which includes eleven groups of foods; to each group is assigned a value ranging between 0 and 5 based on the frequency of monthly intake. The total score spans from 0 (poor adherence) to 55 (maximum adherence). The level of physical activity was measured by the 6-minutes walking test (6MWT) and by the International Physical Activity Questionnaire (IPAQ). Systemic disease activity was evaluated with the EULAR SS disease activity index (ESSDAI); EULAR SS patient-reported index (ESSPRI) was calculated as well. A subgroup of patients was asked to fill a daily food