deviations were reported for continuous variables. Number and percentages were shown for categorical variables and chi-square test was utilised for comparison. T-test was used to compare patients between the groups.

Results: Total of 1362 patients with SLE fulfilling revised ACR criteria were included; 60.9% were Caucasian and 32.8% African American. 596 had biopsy-proven LN however 524 patients were excluded because they had proteinuria before or at cohort entry. Only first available BMI were analysed: 32.7% were obese (BMI >30 kg/m²), 27.2% overweight (BMI: 25–29.9 kg/m²), 37.5% normal (BMI: 18.5–24.9 kg/m²) and 2.6% underweight (BMI <18.5 kg/m²). 39.4% (537) patients were on steroids at first BMI measurement. Results are described in table 1. BMI measured as continuous (p=0.51) and categorical variables (overweight p=0.64, obese p=0.67) were not associated with LN after adjusting for age, sex and ethnicity. SLE patients with obesity were found to have lower disease activity (SLEDAI), proteinuria, dsDNA titers and higher complement levels.

Abstract AB0538 – Table 1. SLE Patients with vs without Lupus Nephritis (P<0.05 in bold)

	Lupus Nephritis (n=72)	SLE without Lupus Nephritis (n=1290)	P Value
	Mean (SD)	Mean (SD)	
	/N (%)	/N (%)	
Age when BMI are measured	32.07 (8.4)	42.53 (13.48)	<0.0001
Kidney Biopsy Age	35.14 (10.9)	–	
Ethnicity	20 (27.78%)	811 (62.87%)	<0.0001
Caucasian			
Asian	5 (6.94%)	36 (2.79%)	
African American	42 (58.33%)	404 (31.32%)	
Others	5 (6.94%)	39 (3.02%)	
Male	6 (8.33%)	76 (5.89%)	0.4387
Age when SLE was diagnosed	27.39 (8.47)	35.46 (12.85)	<0.0001
BMI (continuous)	26.93 (6.72)	28.02 (7.32)	0.1855
BMI (Categorical)	32 (44.44%)	475 (36.82%)	0.6242
Underweight			
Normal Weight	2 (2.78%)	38 (2.95%)	
Overweight	19 (26.39%)	372 (28.84%)	
Obesity	19 (26.39%)	405 (31.4%)	
SLEDAI (continuous score)	5.04 (4.03)	2.13 (2.8)	<0.0001
SLEDAI (≥2)	65 (90.28%)	690 (53.61%)	<0.0001
Anti dsDNA (≥10)	40 (59.7%)	252 (20.31%)	<0.0001
Low C3 (<79)	37 (53.62%)	178 (14.19%)	<0.0001
Low C4 (<12)	27 (39.13%)	146 (11.67%)	<0.0001
ESR (>20)	47 (70.15%)	576 (47.56%)	0.0004

Conclusions: Obesity was not associated with the development of lupus nephritis. Obese patients with SLE had lower disease activity as measured by SLEDAI, dsDNA titers and complement levels.

Disclosure of Interest: None declared

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AB0539 CORRELATION BETWEEN MORPHOLOGICAL AND FUNCTIONAL MICROVASCULAR DAMAGE IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: Numerous articles have investigated peripheral microcirculation in primary Raynaud's phenomenon (PRP).^{1–3} However, reports that analyse peripheral microcirculation in systemic lupus erythematosus (SLE) are scanty.^{4,5}

Objectives: The aim of this study was to investigate possible correlations between morphological and functional aspects of microcirculation in different skin areas of the hands and face in SLE patients and to compare the results with PRP patients and healthy subjects (HS).

Methods: A total of 14 SLE patients without RP (ACR criteria)⁶ (mean age 53 ±14 SD years, mean disease duration 7±4 years), 14 PRP patients (LeRoy and ACR/EULAR 2013 criteria)^{7,8} (mean age 53±17 years, mean RP duration 6±5 years) and 14 HS (mean age 50±17 years) were enrolled during the winter period. Nailfold videocapillaroscopy (NVC) and laser speckle contrast analysis (LASCA) were performed in the three groups of patients. The absolute nailfold capillary number (CN) per linear millimetre at first distal row was assessed by NVC. Blood perfusion (BP) was detected by LASCA at the level of fingertips, periungual areas, dorsum and palm of both hands and face. The average BP was calculated as perfusion units (PU).² Patients were not taking vasodilator drugs since at least one month. Statistical analysis was performed by non parametric tests.

Results: SLE patients showed a positive correlation between BP and nailfold CN in all areas of hands (p<0.0001), but no statistically significant correlation was observed between BP and nailfold CN at the level of face (p=0.10). In both PRP and HS no statistically significant correlation was observed between BP and nailfold CN in all examined areas (p=0.70 and p=0.20, respectively). SLE patients showed a statistically significant lower nailfold CN than both PRP and HS (median 9.1 vs 10.3 vs 11.0, respectively, p<0.0005). Conversely, no statistically significant difference of nailfold CN was observed between PRP and HS. PRP patients showed a statistically significant lower BP than both SLE and HS at the level of fingertip (median 90, 114, 187 PU, respectively; p<0.0001), periungual (median 74, 100, 141 PU, respectively, p<0.0001), dorsal (median 61, 72, 128 PU, respectively, p<0.0001), and palm areas (median 76, 96, 124 PU, respectively, p<0.0001). Conversely, PRP, SLE and HS patients showed similar BP values at the level of face (median 141, 139, 137 PU, respectively, p=0.30).

Conclusions: This study demonstrates a correlation between morphological and functional microvascular features in SLE patients. SLE patients without RP have a subclinical microangiopathy, showing lower nailfold CN and BP than HS. Conversely, PRP patients show only a functional dysfunction, having a lower peripheral skin BP than both SLE patients and HS. The clinical value of this new finding is undergoing further analysis.

REFERENCES:

- [1] Cutolo M, et al. J Rheumatol 2010;37:1174–80.
- [2] Ruaro B, et al. Ann Rheum Dis 2014;73:1181–5.
- [3] Rosato E, et al. Rheumatology 2009;36:2257–63.
- [4] Anania C, et al. Lupus 2012;21:815–20.
- [5] de Leeuw K, et al. Lupus 2008;17:1010–1017.
- [6] Petri M, et al. Arthritis Rheum. 2012;64:2677–86.
- [7] van den Hoogen F, et al. Ann Rheum Dis 2013;72:1747–55.
- [8] LeRoy EC, et al. Clin Ex Rheumatol 1992;10:485–8.

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AB0540 USEFULNESS OF CARDIAC SCREENING IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND ANTI-RO POSITIVE ANTIBODIES

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Background: Cardiac block in neonatal lupus is associated with placental transfer of anti-Ro antibodies. The effect of these antibodies on cardiac conduction disorders in adult patients is controversial. The association between anti-Ro antibodies and heart rhythm disorders have been described in isolated cases. However, there are just a few studies that analyse the relationship between auto-immune diseases and electrocardiographic disturbances.

Objectives: To determine if there are differences in cardiac conduction of SLE patients in presence of anti-Ro antibodies.

Methods: All patients included fulfilled the SLE criteria, SLICC 2012 and they were followed up in a single centre. The inclusion was consecutive and voluntary. Patients who took drugs that altered the conduction (except antimalarial drugs), and those who had heart or thyroid disease were discarded. All patients were assessed blindly by a cardiologist who performed an interrogation and physical examination, an electrocardiogram, an echocardiogram and a 24 hour Holter study. Besides, a rheumatologist performed a clinical and analytical assessment including a qualitative analysis by immunoblotting of anti-Ro Ab and a quantification by chemiluminescence of the anti-Ro52 and Ro60 Ab. The presence of other SLE specific Ab (ANA, DNA, antiphospholipids), was also analysed. Clinical, analytical and, activity and damage indexes, were collected (SLEDAI and SLICC). The data were compared by Student's t test, Fisher's test and Chi square using 21 SPSS version. The level of significance was established at 5%.

Results: 145 patients were included: 91.7% women, average age 45±12, average disease duration 11 years. The patients were undergoing the following treatments: antimalarial 91%, mycophenolate 20%, azathioprine 12%, biological treatment 5% and glucocorticoids 70%. The clinical characteristics are summarised in table 1.

There were no significant differences between the group of positive and negative anti-Ro Ab in terms of gender, age, clinical characteristics or cardiovascular risk factors. None of the patients was affected by an atrio-ventricular block and the rest of the electrocardiographic alterations had no clinical significance and did not predominate in the positive Ro Ab group. Additionally, no differences in heart rate, ventricular extrasystoles or PR, QT or QRS intervals were detected between both groups. The echocardiogram's findings were not relevant and there were no differences between groups.

Since the majority of patients with SLE are double positive, differences between the two subspecificities of Ro (52 and 60) could not be analysed. On the other hand, no differences were found in cardiac conduction regarding the treatments received, the activity or damage indexes, or the analytical or clinical characteristics of the patients.

Cumulative clinical manifestations (%)	
Articular	80
Cutaneous	63
Leuco-lymphopenia	42
Renal	24
Serositis	30
Neurologic	9
Secondary antiphospholipid syndrome	10
Secondary Sjögren syndrome	10
Activity and damage indexes	
SLICC	0,32 ± 0,7
SLEDAI in diagnosis	7,97 ± 4,2
SLEDAI in inclusion	1,82 ± 2,48
Analytical parameters	
Increased DNA	51 %
Average DNA	207,86 ± 357 (UI/L)
Hypocomplementemia	39 %
Anti-Ro positive antibodies	31 %

Abstract AB0540 – Figure 1

Conclusions: The study results show that there are no differences in cardiac conduction according to the presence of anti-Ro antibodies in SLE patients. Thus, the cardiac screening in SLE patients with anti-Ro positive antibodies seems not helpful in clinical practice.

Disclosure of Interest: None declared

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AB0541 HEPICIDIN AND INTERFERON- α IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease where interferon (IFN) α , is considered to play a central role in its pathogenesis. Anaemia of chronic disease (ACD) in SLE is common. Hepcidin may contribute to anaemia by limiting iron availability for erythropoiesis.

Objectives: The aim of the study was to evaluate INF- α and hepcidin levels in sera of anaemic and non-anaemic SLE patients.

Methods: This was a pilot study of SLE patients with established disease. Patients were divided as anaemic and non- anaemic according to the haemoglobin (Hb) levels: Hb value <13.5 gm% for men and <11.5 gm% for females. ACD was defined according the levels of iron and ferritin. Serum hepcidin (the active 25 amino acid form) was measured using ELISA (Peninsula Laboratories International). IFN alpha was also measured using ELISA (eBioscience, affymetric). The inter-assay coefficient of variation was <20% for both assays). All analyses were performed with IBMSPSS Statistics for Windows (version 21). Data are expressed as the mean $\pm$ standard deviation (SD). Statistical analysis was performed using

Student's t-test for independent samples. The relationships between hepcidin level and all variables were analysed using two-tailed Pearson's correlation test. P values less than 0.05 were considered significant.

Results: Forty SLE patients (36 women and 4 men) were studied. Demographic parameters were as follows: age 46.78 $\pm$ 16.04 years, disease duration 10.55 $\pm$ 6.58 years. Levels of Hb were 12.49 $\pm$ 1.28 g/dl. Levels of INF- α were 0.16 $\pm$ 0.47 pgr/ml while hepcidin levels were 2.54 $\pm$ 2.63 ngr/ml. When the patients were divided into anaemic (20 patients) and non-anaemic (20 patients) groups (Hb:11.41 $\pm$ 0.56 vs. 13.57 $\pm$ 0.77 g/dl, $p<0.001$), patients with anaemia had lower disease duration (9.75 $\pm$ 6.16 vs. 11.35 $\pm$ 7.03 years, $p=0.45$), lower levels of INF- α (0.13 $\pm$ 0.035 vs. 0.19 $\pm$ 0.036 pgr/ml $p<0.001$) and higher hepcidin levels (2.92 $\pm$ 2.9 vs. 2.17 $\pm$ 2.35 ngr/ml, $p=0.37$) than the patients without anaemia. No correlation was observed between levels of hepcidin with all variables. There was also no correlation between hepcidin and INF- α levels.

Conclusions: INF- α does not seem to contribute in ACD pathogenesis in SLE patients and does not correlate with hepcidin levels in SLE patients. Further studies will clarify the role of INF- α in anaemia in SLE.

Disclosure of Interest: None declared

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AB0542 MULTIPLE SCLEROSIS IN PATIENTS WITH PRIMARY SJÖGREN'S SYNDROME

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Background: Imaging and histopathologic studies in patients with primary Sjögren's Syndrome (pSS) have demonstrated white matter lesions which are indistinguishable from those observed in multiple sclerosis (MS).

Objectives: The purpose of this study was to evaluate the frequency of MS in a cohort of patients with pSS.

Methods: One hundred and twenty-one patients with pSS had been evaluated and followed up in the outpatient Rheumatology Clinic at predefined times since 1994. All patients were classified according to the 2016 ACR-EULAR criteria for SS. During follow-up the clinical, laboratory and imaging findings were all recorded. In addition, Magnetic Resonance Imaging and electrophysiological studies as well as spinal fluid analysis were performed when indicated. The diagnosis of MS was based on the 2010 revised McDonald criteria.

Results: Seven patients were diagnosed as having MS. All patients with MS were female. Mean age at the time of MS diagnosis was 65.5 $\pm$ 3.6 years, while pSS has been diagnosed at the mean age of 54.4 $\pm$ 3.2 years. Mean time of MS development was approximately 10 years after the pSS diagnosis. pSS patients who developed MS had severe sicca symptoms without other extraglandular manifestations and had positive Ro (SSA) antibodies and a positive minor salivary gland biopsy. pSS patients with MS development were treated appropriately in the Neurology department with biological medications with some improvement of the sicca symptoms.

Conclusions: We found that 5.8% of pSS patients as having MS. This percentage of patients clearly indicates the possibility for the coexistence of a second autoimmune disease with similar if not common pathogenetic mechanisms. Thus patients with pSS should be evaluated carefully and screened appropriately for MS when indicated.

Disclosure of Interest: None declared

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AB0543 CORRELATION BETWEEN SYSTEMIC LUPUS ERYTHEMATOSUS DISEASE ACTIVITY AND OCULAR SIGNS IN OPHTHALMOLOGICALLY ASYMPTOMATIC PATIENTS

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Background: Systemic lupus erythematosus (SLE) is an autoimmune disease involving different organs and systems. Ocular manifestations of lupus may manifest as a presenting feature of the disease or as a complication that can be sight threatening. Almost any part of the eye and visual pathway can be affected by inflammatory or thrombotic processes yet ophthalmological assessment in those patients may be delayed.

Objectives: Detection of various ocular pathologies in ophthalmologically asymptomatic SLE patients using Optical Coherence Tomography (OCT), Fundus Fluorescein angiography (FFA), and fundus examination, in addition to studying the