(CRP) and autoantibody profile were analyzed. Quantitative and categorical data were compared using Kruskal-Wallis test and chi-square test, respectively.

Results: There was a difference in prevalence of malar rash between the groups ($p=0.022$): it was more common in JSLE (40.4%) and ASLE (34.4%) than in LSLE patients (15.6%; $p=0.04$ and 0.05 , respectively). Similar distribution was found for renal involvement: JSLE and ASLE patients presented higher rates of nephritis (55.8% and 49.4%, respectively) than LSLE patients (23.8%; $p=0.012$ and 0.014 , respectively). But the groups did not differ significantly with regard to nephrotic syndrome ($p=0.224$). ASLE was associated with more frequent alopecia (38.8%) comparing with JSLE (19.2%; $p=0.04$). Moreover, ASLE patients also had the highest frequency of lymphadenopathy (56.3%) whereas in LSLE it was observed only in 25.0% of patients ($p=0.001$). Serositis was more common in LSLE (54.5%) and ASLE (43.8%) than in JSLE (23.1%; $p=0.011$ and 0.034 , respectively). Although secondary Sjögren's syndrome was more frequently observed in ASLE (7.6%) and LSLE (7.3%) than in JSLE (0.0%), the difference did not achieve statistical significance ($p=0.157$). Also, no differences were observed in the occurrence of arthritis, pulmonary and neurological manifestations, constitutional symptoms, SLEDAI score among the groups. Median CRP level in LSLE was significantly higher (14.0 (1.1-46.4) mg/L) than in JSLE (0.7 (0.0-12.0) mg/L) ($p<0.05$). But all groups did not differ significantly with regard to ESR levels. When differences in antinuclear antibodies were analyzed, we disclosed that the frequency of anti-dsDNA positive results was significantly higher in JSLE (68.6%) and ASLE (70.1%) patients when compared with that found in LSLE patients (31.3%) ($p=0.016$ and 0.001 , respectively). There were no significant differences between groups with regard to positivity for other antibodies (anti-Sm, -Ro, -La, -RNP, antiphospholipid antibodies).

Conclusion: JSLE and ASLE patients are more likely to have malar rash, nephritis and anti-dsDNA positivity. Alopecia and lymphadenopathy are most frequent in ASLE patients. JSLE are far less likely to have serositis than any other group. Patients with LSLE demonstrate comparatively low frequency of major organ involvement, but they have higher levels of CRP.

REFERENCES:

- [1] Ambrose N., et al. Differences in disease phenotype and severity in SLE across age groups. *Lupus*. 2016;25(14):1542-1550.
- [2] Livingston B., et al. Differences in autoantibody profiles and disease activity and damage scores between childhood- and adult-onset systemic lupus erythematosus: a meta-analysis. *Seminars in Arthritis and Rheumatism*. 2012;42(3):271-280.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1237

POS0726

POST-TRAUMATIC STRESS DISORDER AND QUALITY OF LIFE IN SYSTEMIC LUPUS ERYTHEMATOSUS. A CROSS SECTIONAL WEB SURVEY-BASED STUDY

L. Moroni^{1,2}, M. Mazzetti³, G. A. Ramirez^{1,2}, S. Zuffada³, N. Farina^{1,2}, E. Bozzolo¹, V. Di Mattei^{2,3}, L. Dagna^{1,2}. ¹San Raffaele Hospital, Unit of Immunology, Rheumatology, Allergy and Rare Diseases, Milano, Italy; ²Vita-Salute San Raffaele University, Milano, Italy; ³San Raffaele Hospital, Clinical and Health Psychology Unit, Milano, Italy

Background: Exposure to severe or chronic life stressors may alter immune function and high levels of subsequent distress have been implicated in autoimmune disease pathogenesis. Post-traumatic stress disorder (PTSD) is a debilitating psychiatric condition affecting 1-12% of the general population¹, occurring in response to traumatic events. Growing evidence supports an association between trauma exposure and PTSD with systemic lupus erythematosus (SLE) onset².

Objectives: To cross-sectionally assess PTSD prevalence in a cohort of patients with SLE and to examine its correlation with quality of life.

Methods: A 189-item anonymous questionnaire including demographics, disease features, the 9-domain Trauma and Loss Spectrum – Self Report (TALS-SR) and the 8-domain Lupus Quality of Life (Lupus QoL) was administered via web to a cohort of patients with SLE. Patients were classified as PTSD cases based on TALS-SR items corresponding to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for PTSD.

Results: Ninety-nine (95% female and 5% male) patients with a median follow-up of 16.5 years completed the questionnaire. Self-reported fatigue prevalence was 75%. Fifteen patients (15%) reportedly were on psychological and/or psychiatric support. Thirty-one patients (31%) met the DSM-5 criteria for PTSD. The average LupusQoL interdomain score was 80/100. PTSD cases reported significantly lower scores compared to non-cases in three LupusQoL domains: planning (83 vs. 100, $p=0.035$), body image (85 vs. 95, $p=0.031$), and fatigue (67 vs. 92, $p=0.001$). An inverse correlation between TALS-SR scores and Lupus QoL subscales was found (Table1). In particular, the degree of stress secondary to losses or upsetting events was strongly correlated to fatigue intensity ($\rho=-0.458$, $p<0.001$).

Conclusion: PTSD prevalence might be higher in SLE than in the general population and have a detrimental influence on quality of life. Fatigue perception might be more significantly affected by PTSD. Intervention studies are needed to assess the therapeutic effects of psychological support in patients with SLE.

REFERENCES:

- [1] Shalev A et al. *Post-Traumatic Stress Disorder*. New England Journal of Medicine, June 2017.
- [2] Roberts AL et al. *Association of Trauma and Posttraumatic Stress Disorder With Incident Systemic Lupus Erythematosus in a Longitudinal Cohort of Women*. *Arthritis & Rheumatology*, November 2017.

Table 1. Spearman rho coefficients outlining correlation across Lupus QoL and TALS-SR domains. The highest negative correlation has been found between fatigue and reaction to traumatic events. Significant correlations boxes are coloured in yellow (weak, $\rho 0.20-0.39$) and red (moderate, $\rho 0.40-0.59$). * $p<0.05$, ** $p<0.01$.

	LupusQoL Domains								Lupus QoL Total Score
	Physical health	Pain	Planning	Intimate relationship	Burden of others	Emotional health	Body image	Fatigue	
TALS-SR Domains									
Loss events	-0.217	-0.217	-0.096	-0.031	0.047	-0.022	0.076	-0.009	-0.061
Grief reactions	-0.145	-0.104	-0.041	-0.018	-0.124	-0.172	-0.192	-0.149	-0.107
Potentially traumatic events	0.039	-0.082	-0.169	-0.167	-0.207	-0.185	-0.046	-0.229	-0.096
Reaction to losses or upsetting events	-0.221	-0.256*	-0.289*	-0.218	-0.290*	-0.369**	-0.371**	-0.458**	-0.341**
Re-experiencing	-0.139	-0.215	-0.245*	-0.228	-0.320**	-0.275*	-0.287*	-0.342**	-0.274*
Avoidance	-0.176	-0.246*	-0.279*	-0.257*	-0.337**	-0.405**	-0.413**	-0.406**	-0.338**
and numbing	-0.190	-0.238	-0.294*	-0.282*	-0.324**	-0.340**	-0.358**	-0.405**	-0.327**
Maladaptive coping	-0.134	-0.177	-0.263*	-0.320**	-0.283*	-0.279*	-0.321**	-0.397**	-0.282*
Arousal	-0.044	-0.115	-0.266*	-0.189	-0.409**	-0.231	-0.197	-0.253*	-0.199
Personal characteristics / risk factors									

Disclosure of Interests: Luca Moroni: None declared, Martina Mazzetti: None declared, Giuseppe Alvise Ramirez: None declared, Simone Zuffada: None declared, Nicola Farina: None declared, Enrica Bozzolo: None declared, Valentina Di Mattei: None declared, Lorenzo Dagna Consultant of: Abbvie, Amgen, Biogen, BristolMyers Squibb, Celltrion, Galapagos, GlaxoSmithKline, Novartis, Pfizer, Roche, Sanofi-Genzyme, and SOBI, Grant/research support from: The Unit of Immunology, Rheumatology, Allergy and Rare Diseases (UnIRAR) received unrestricted research/educational grants from Abbvie, Bristol-Myers Squibb, Celgene, GlaxoSmithKline, Janssen, Merk Sharp & Dohme, Mundipharma Pharmaceuticals, Novartis, Pfizer, Roche, Sanofi Genzyme, and SOBI

DOI: 10.1136/annrheumdis-2021-eular.1238

POS0727

INSULIN RESISTANCE AND LEPTIN LEVELS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS WITHOUT DIABETES MELLITUS OR FASTING HYPERGLYCEMIA

L. Kondratyeva¹, T. Panafidina¹, T. Popkova², M. Cherkasova³, A. Lila⁴, E. Nasonov⁴. ¹V.A. Nasonova Research Institute of Rheumatology, Department of Systemic Rheumatic Diseases, Moscow, Russian Federation; ²V.A. Nasonova Research Institute of Rheumatology, Department of Systemic Rheumatic Diseases, Moscow, Russian Federation; ³V.A. Nasonova Research Institute of Rheumatology, Immunology and Molecular Biology of Rheumatic Diseases, Moscow, Russian Federation; ⁴V.A. Nasonova Research Institute of Rheumatology, Scientific Department, Moscow, Russian Federation

Background: Insulin resistance (IR) is considered as initial stage of diseases continuum from development of prediabetes to eventual progression to type 2 diabetes mellitus (T2DM). Individuals with prediabetes have also elevated leptin levels, so this adipocytokine along with IR can be considered as predictive laboratory markers of higher risk of T2DM. It is not yet clear whether presence of individual or multiple SLE-related and/or known traditional risk factors of T2DM (such as unhealthy diet, physical inactivity, family history of diabetes, or being overweight) can precipitate the development of IR.

Objectives: To analyze the relationship between IR and increasing leptin levels rates. To identify the presence and evaluate the potential role of traditional and disease-related risk factors for IR in SLE patients without T2DM or hyperglycemia.

Methods: A total of 49 SLE pts (46 women, 3 men, 40 [33;48] years old) without established DM and with normal fasting glucose levels (<6.1 mmol/l) were enrolled in the study. Median disease duration was 3,0[0,7;8,0] years, SLEDAI-2K was 5[2;8]. SLE pts were treated with glucocorticoids (GC) (84%), hydroxychloroquine (78%), immunosuppressive drugs (20%) and biological agents (10%). Insulin levels were measured using electrochemiluminescence assay Elecsys (Roche Diagnostics), serum leptin concentrations were estimated using ELISA (DBS-Diagnostics Biochem Canada Inc.). IR was defined as Homeostasis Model Assessment of Insulin Resistance index (HOMA-IR) ≥ 2.77 . Leptin levels were considered elevated at values ≥ 11.1 ng/ml for women, ≥ 5.6 ng/ml for men. Eight traditional T2DM risk factors from the FINDRISK (Finnish Type 2 Diabetes Risk Assessment Form) questionnaire (older age, being overweight, abdominal obesity, family history of diabetes, sedentary life-style, lack of regular dietary fiber intake, taking antihypertensive medications as a surrogate marker of high blood pressure, documented episodes of hyperglycemia) were evaluated. This study used 5 risk categories for developing T2DM proposed by FINDRISK questionnaire: low, slightly elevated, moderate, high or very high.

Results: Median HOMA-IR levels were 1,7 [1,2;2,5]. HOMA-IR correlated with leptin levels ($r=0.7$, $p<0.001$), body mass index (BMI) ($r=0.6$, $p<0.001$), waist circumference (WC) ($r=0.5$, $p<0.001$), T2DM risk categories by FINDRISK ($r=0.3$, $p=0.03$), SLEDAI-2K ($r=-0.4$, $p<0.01$), and duration of GCs therapy ($r=0.3$, $p=0.03$). Current GC use had no influence on HOMA-IR in SLE. IR was detected in 10 (20%) SLE pts. The traditional T2DM risk factors profiles were similar in pts with (Group 1) or without IR (Group 2) except for higher anthropometric parameters in group 1 (for BMI 27,2[24,8;32,2]kg/m² vs 23,7[20,6;26,7]kg/m², $p<0.01$; for WC: 93[86;102]cm vs 83[76;93]cm, $p=0.02$). Leptin levels were also higher in SLE pts with IR compared to pts without IR (74,2[30,4;112,7]ng/ml vs 25,0[6,7;42,4]ng/ml, $p<0.01$). Increased leptin levels were found in 35 (71%) pts, more often in pts with IR (100 vs 64%, $p=0.04$).

Conclusion: IR was found in 20% of SLE pts without T2DM having normal serum fasting glucose concentration. Emergence of IR was commonly preceded by increased leptin levels. IR values were closely associated with accumulation of adipose tissue facilitated by long-term GCs use and disease activity decrease. Contribution of other traditional risk factors of T2DM seemed insignificant.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1307

POS0728

QRISK3 RELATION TO CAROTID PLAQUE IS HIGHER THAN THAT OF SCORE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

J. C. Quevedo-Abeledo¹, C. Palazuelos², J. Llorca², L. Cáceres Martín¹, I. Ferraz-Amaro³, M. A. González-Gay⁴. ¹Hospital Universitario de Gran Canaria Dr Negrín, Rheumatology, Las Palmas de GC, Spain; ²University of Cantabria, CIBER Epidemiología y Salud Pública (CIBERESP), Santander, Spain; ³Hospital Universitario de Canarias, Rheumatology, La Laguna, Spain; ⁴Hospital Universitario Marqués de Valdecilla, University of Cantabria, Rheumatology, Santander, Spain

Background: Systemic lupus erythematosus (SLE) has been described as an independent risk factor for the development of cardiovascular (CV) disease. Recently, QRESEARCH risk estimator version 3 (QRISK3) calculator has been released for the assessment of CV risk in general population. QRISK3 now includes the presence of SLE as one of its variables for the calculation of CV risk.

Objectives: We aim to compare, in patients with SLE, the predictive capacity between QRISK3 and Systematic COronary Risk Evaluation (SCORE) for the presence of carotid subclinical atherosclerosis.

Methods: 296 patients with SLE were recruited. The presence of carotid plaque and carotid intima media thickness (cIMT) were assessed through ultrasound. QRISK3 and SCORE were calculated. The relation of QRISK3 and SCORE between themselves and to the presence of carotid subclinical atherosclerosis (both carotid plaque and cIMT) was studied.

Results: Most of the patients were female (95%) and average age was 51 $\pm$ 12 years. Traditional cardiovascular risk factors were prevalent, as shown in table 1. Most SLE patients were in the no activity (41%) or mild activity (29%) categories as shown by the SLEDAI scores. SLICC and Katz indexes were, respectively, 1 (IQR 0-2) and 2 (IQR 1-4). Seventy-one percent of the patients had a SLICC/ACR DI score equal to or higher than 1, and 39% had a Katz index equal to or higher than 3. Almost half of the patients (47%) were taking prednisone (the median dose of those 139 patients on prednisone was 5 [IQR 2.5-5] mg/day at the time of the study). DMARDs use was reported in 77% of the patients and 69% were taking hydroxychloroquine at the time the study was performed. SCORE and QRISK3 did not correlate between them in patients with SLE. In this sense, QRISK3, both calculated including the SLE item (Rho Spearman $r=-0.008$, $p=0.90$) or not (Rho Spearman $r=-0.009$, $p=0.96$), did not correlate with SCORE. This lack of correlation was also found when the corresponding categorizations of both scores were used. For example, patients with a QRISK3

= 10 did not show a higher SCORE when compared to patients with a QRISK3 <10 (1.26 vs. 1.30, $p=0.90$). Similarly, QRISK3 was not different between the low, moderate, high and very-high SCORE CV risk categories.

Relation of QRISK3 and SCORE to cIMT and to the presence of carotid plaque is shown in Figure 1. QRISK3 was statistically significantly correlated with cIMT (Rho Spearman $r=-0.420$, $p=0.000$). However, this relation was not found between SCORE and cIMT (Rho Spearman $r=-0.005$, $p=0.93$). Moreover, QRISK3 showed a statistically significant discrimination for the presence of carotid plaque (AUC 0.765 (95%CI 0.711-0.820)). This relation was found to be significant both when QRISK3 was calculated with the SLE variable item or not. However, in patients with SLE, SCORE did not show a significant discrimination for the presence of carotid plaque (0.561 (95%CI 0.494-0.629)). Additionally, a statistical significant difference was observed between the AUC of QRISK3 and SCORE ($p=0.000$).

Table 1. Characteristics of SLE patients

SLE patients	
(n=296)	
Age, years	51 $\pm$ 12
Female, n (%)	280 (95)
Body mass index, kg/m ²	27 $\pm$ 6
Systolic blood pressure, mmHg	127 $\pm$ 19
Cardiovascular co-morbidity	
Smoking, n (%)	74 (25)
Diabetes, n (%)	14 (5)
Hypertension, n (%)	119 (40)
Dyslipidemia, n (%)	115 (39)
Analytical and lipid profile	
CRP, mg/dl	1.9 (0.9-4.9)
Cholesterol, mg/dl	198 $\pm$ 38
LDL cholesterol, mg/dl	110 $\pm$ 29
SLE related data	
Disease duration, years	17 (10-25)
SLICC	1 (0-2)
SLEDAI	2 (0-4)
Current prednisone, n (%)	139 (47)
Hydroxychloroquine, n (%)	205 (69)
Subclinical atherosclerosis	
Carotid IMT, microns	630 $\pm$ 122
Carotid plaques, n (%)	108 (36)

Figure 1. Relation of QRISK3 and SCORE to cIMT and carotid plaque.

Conclusion: QRISK3 discrimination for carotid plaque is higher than that of the SCORE. QRISK3, and not SCORE, should be used for the calculation of CV risk in patients with SLE.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1376

POS0729

INFLUENCE OF VARIOUS FACTORS ON THE IMMUNOGENICITY OF 23-VALENT POLYSACCHARIDE PNEUMOCOCCAL VACCINE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

G. Tarasova¹, B. Belov¹, M. Cherkasova², E. Aseeva³, T. Reshetnyak⁴, N. Kosheleva⁴, T. Popkova⁵. ¹V.A. Nasonova Research Institute of Rheumatology, Laboratory for the Study of Comorbid Infections and Monitoring the Safety of Drug Therapy, Moscow, Russian Federation; ²V.A. Nasonova Research Institute of Rheumatology, Laboratory of Immunology and Molecular Biology of Rheumatic Diseases, Moscow, Russian Federation; ³V.A. Nasonova Research Institute of Rheumatology, Intensive Therapy Laboratory, Moscow, Russian Federation; ⁴V.A. Nasonova Research Institute of Rheumatology, Vascular Rheumatology Laboratory, Moscow, Russian Federation; ⁵V.A. Nasonova Research Institute of Rheumatology, Systemic Rheumatic Diseases Laboratory, Moscow, Russian Federation