cell expression is more frequent in SSc (72.7%) and overlap patients (85.7%) in comparison with SjS (58.2% and *P*=0.004). Additionally, most of the acinar TGF-β1 staining was strong positive in SSC patients (45.5% vs 19.0% and 3.6%).
Conclusions: The results of our study showed that mTOR may be one of the common pathways for the pathology/inflammation observed in both SjS and SSc. Thus, there may be a room for mTOR inhibitors for the treatment of both diseases. Additionally PTEN and TGF-β1 expression, in particular acinar TGF-β1 might be a distinctive feature of SSc.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.5191

THURSDAY, 15 JUNE 2017

SLE, Sjögren's and APS - clinical aspects (other than treatment)

THU0246 THE IMPACT OF CLASSIFYING SLE PATIENTS WITH THE SLICC-2012 VERSUS THE ACR-1997 CLASSIFICATION CRITERIA ON EARLY DIAGNOSIS, SEVERITY, AND DAMAGE: DATA FROM THE COMMUNITY-BASED CRETAN LUPUS REGISTRY

I. Gergianaki[1,2], A. Fanouriakis[3], C. Adamichou[2], G. Spyrou[4], P. Sidiropoulos[2], D. Boumpas[1,3,5,6,7], G. Bertsias[1,2]. *[1]Laboratory of Autoimmunity and Inflammation, Institute of Molecular Biology-Biotechnology, FORTH; [2]Rheumatology, Clinical Immunology and Allergy, University of Crete School of Medicine, Iraklio; [3]4th Department of Medicine, Attikon University Hospital, National and Kapodistrian University of Athens Medical School, Athens; [4]Laboratory of Autoimmunity and Inflammation, University of Crete School of Medicine, Iraklio; [5]Laboratory of Autoimmunity and Inflammation, Biomedical Research Foundation of the Academy of Athens, Athens, Greece; [6]Medical School, University of Cyprus, Nicosia, Cyprus; [7]Joint Rheumatology Program, Attikon University Hospital, National and Kapodistrian University of Athens Medical School, Athens, Greece*

Background: Systemic Lupus Erythematosus (SLE) often poses challenges to diagnosis in clinical practice and classification in research. The 2012 SLICC criteria have been recently introduced, with validation studies suggesting greater sensitivity yet equal or lower specificity compared to the 1997 ACR criteria. However, the prognostic significance of classifying SLE patients with the $SLICC^{2012}$ versus the ACR^{1997} criteria is not known.
Objectives: To evaluate the impact of $SLICC^{2012}$ versus ACR^{1997} SLE classification in terms of clinical characteristics and outcome.
Methods: Both the $SLICC^{2012}$ and the ACR^{1997} classification criteria were applied to adult SLE patients enrolled in the community-based Cretan Lupus Registry over the period 1999–2013. Classified cases were assessed at the end of 2013 in terms of disease severity (determined by the severity of manifestations and the use of lupus treatments) and organ damage (assessed by the SLICC/ACR damage index). Cases who fulfilled both criteria during the observation period were categorized according to which set of criteria was satisfied first and then compared for the frequency of individual criteria.
Results: At the end of the observation period (year 2013), fewer SLE patients had been classified with the $SLICC^{2012}$ (n=602) as compared with the ACR^{1997} (n=750) criteria. The female-to-male ratio (12.6:1 versus 13:1) and the mean (±SD) age at the time of diagnosis (42±15 versus 43±15 years) were comparable between $SLICC^{2012}$ and ACR^{1997}-classified cases, respectively. Lupus was classified as mild, moderate and severe in 50%, 33% and 17% of the ACR^{1997}- as compared to 42%, 34% and 23% of the $SLICC^{2012}$-classified patients ($p<0.001$). Damage occurred in 30.5% of the ACR^{1997} versus 36% of the $SLICC^{2012}$ cohort (p=0.01) despite comparable disease duration. Patients who fulfilled both sets of criteria (n=512) were categorized into three groups based on which criteria were fulfilled first, i.e. group 0 (concurrently: 87% of cases), group 1 ($SLICC^{2012}$ after ACR^{1997}: 5%), and group 2 ($SLICC^{2012}$ before ACR^{1997}: 8%). We found that malar rash and neurologic disorder were significantly more prevalent in group 1 (malar rash: 54.3%, 80.8% and 48.8% in groups 0, 1 and 2, respectively, p=0.02; neurologic disorder: 3.7%, 15.4% and 0%, respectively, p=0.05). Conversely, group 1 patients had significantly lower frequency of non-scarring alopecia (51.3%, 23.1% and 68.3%, respectively, p=0.02) and synovitis (23.9%, 0% and 29.3%, respectively, p=0.012).
Conclusions: Application of the $SLICC^{2012}$ criteria may result in classification of SLE patients with more severe disease compared to those who fulfill the ACR^{1997} criteria, which may have important implications in terms of trial design; however, these data need to be validated. Lack of inclusion of malar rash in the $SLICC^{2012}$ criteria and of non-scarring alopecia in the ACR^{1997} criteria may delay the classification of SLE patients.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6734

THU0247 THE PRESENCE OF ANTI-RO AND ANTI-LA ANTIBODIES IS ASSOCIATED WITH TUBULOINTERSTITIAL DAMAGE IN LUPUS NEPHRITIS

A. Londono Jimenez[1], W.B. Mowrey[2], A. Broder[3]. *[1]Department of Medicine, Montefiore Medical Center/Albert Einstein College of Medicine; [2]Epidemiology and Population Health, Albert Einstein College of Medicine; [3]Division of Rheumatology, Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, United States*

Background: Moderate-to-severe tubulointerstitial damage (TID) is associated with poor renal outcomes in lupus nephritis (LN) independent of glomerular pathology[1]. Specific antibody profiles associated with TID in LN have not been identified. Unlike glomerular damage, TID is not associated with anti-dsDNA or complement levels[1]. An association between TID and the presence of anti-Ro/La antibodies has been proposed in Sjögren's syndrome[2]. Whether these antibodies are associated with TID in LN is not known.
Objectives: To study an association between anti-Ro/La antibodies and moderate-to-severe TID in LN.
Methods: We identified all patients who fulfilled ACR and/or SLICC criteria for SLE. Patients were included if they had an index renal biopsy consistent with LN between January 2005 and July 2015 and had complete data on TID and anti-Ro/La. Medical history, demographic and laboratory data were ascertained from chart review. TID was defined as the presence of moderate or severe tubular atrophy and/or interstitial fibrosis from the renal biopsy reports.
Results: of the 157 LN patients, 39 (25%) had moderate/severe TID (Table). As expected, moderate/severe TID was associated with older age, class III/IV±V LN and lower estimated glomerular filtration rate (eGFR) at biopsy. Anti-Ro antibodies were present in 55 (47%) of patients with none/mild TID and 17 (44%) of patients with moderate/severe TID (p=0.74). Both anti-Ro and anti-La antibodies were present in 11 (9%) of patients with none/mild TID vs 11 (28%) of patients with moderate/severe TID (p=0.003). In the logistic regression model adjusted for age, eGFR and LN class, the presence of both anti-Ro and anti-La antibodies was associated with a 3-fold increase in the odds of TID, OR 3.1, 95% CI (1.1–9.1), p=0.04.

Baseline characteristics by TID (none/mild vs. moderate/severe)

	None/Mild TID (n=118)	Moderate/Severe TID (n=39)	p-value
Age, median (IQR), years	26 (17, 37)	41 (25, 53)	<0.001
Men, n (%)	21 (18)	10 (26)	0.29
Black Race, n (%)	55 (47)	22 (56)	0.29
Hispanic ethnicity, n (%)	41 (40)	12 (38)	0.79
Charlson comorbidity index, median (IQR)	3 (1, 4)	3 (1, 4)	0.09
Creatinine (mg/dL), median (IQR)	0.8 (0.6, 1.2)	1.6 (1, 2.6)	<0.001
eGFR mL/min/1.73m^2, median (IQR)	91 (61, 127)	42 (26, 75)	<0.001
Protein/Creatinine ratio (mg/mg), median (IQR)	2.2 (1.0, 4.9)	2.1 (1.5, 5.5)	0.68
LN class n (%)			0.008
I/II	10 (9)	0	
III/IV ± V	71 (61)	34 (87)	
V	35 (30)	5 (13)	
Low C3, n (%)	83 (75)	23 (70)	0.51
Low C4, n (%)	76 (70)	22 (67)	0.69
Elevated dsDNA, n (%)	70 (68)	21 (66)	0.81
Anti-Ro, n (%)	55 (47)	17 (44)	0.74
Anti-Ro and anti-La, n (%)	11 (9)	11 (28)	0.003

Conclusions: The presence of anti-Ro and anti-La antibodies is associated with moderate/severe TID, independent of age, LN class and eGFR. Understanding the role of anti-Ro/La in the mechanisms underlying TID in LN may lead to novel preventive and therapeutic strategies.
References:
[1] Yu F, et al. Kidney Int 2010;77:820–9.
[2] Francois H, et al. Nat Rev Nephrol, 2016;12(2):82–93.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.2237

THU0248 THE ASSOCIATION BETWEEN SYSTEMIC LUPUS ERYTHEMATOSUS TO BIPOLAR DISORDER – A REAL-LIFE STUDY

S. Tiosano[1,2], O. Gendelman[1,2], D. Comaneshter[3], H. Amital[1,2], A. Cohen[3,4], D. Amital[5]. *[1]Sackler School of Medicine, Tel-Aviv University, Tel-Aviv; [2]Internal Medicine 'B', Sheba Medical Center, Ramat-Gan; [3]Chief physician's office, Clalit Health Services, Tel-Aviv; [4]Siaal Research Center for Family Medicine and Primary Care, Faculty of Health Sciences, Ben Gurion University of the Negev, Beer Sheva; [5]Ness Ziona Beer Yaacov Mental Health Center, Beer Yaacov, Israel*

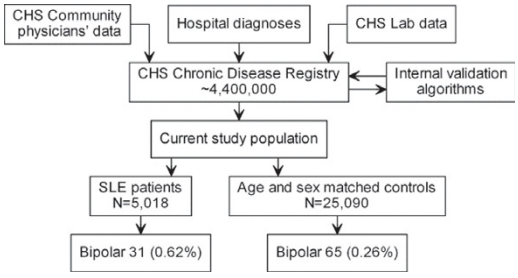
Background: Systemic Lupus Erythematosus (SLE) is a chronic, autoimmune disease that has a wide variety of physical manifestations, including neuropsychiatric features. Bipolar Disorder (BD) is a chronic, phasic affective disorder that may present as depression or as mania. Neuropsychiatric symptoms in SLE develop in 20%>70% of SLE patients during the course of the disease and in half of these patients they precede the diagnosis of SLE[1–4]. In half of the patients, neuropsychiatric manifestations occur prior to the diagnosis of SLE[5].

Objectives: The objective of this study was to investigate the association between SLE and Bipolar Disorder (BD) using big data analysis methods.
Methods: Patients with SLE were compared with age- and sex-matched controls regarding the proportion of BD in a cross-sectional study. Chi-square and t-tests were used for univariate analysis and a logistic regression model was used for multivariate analysis, adjusting for confounders. The study was performed utilizing the chronic disease registry of Clalit Health Services medical database.
Results: The study included 5,018 SLE patients and 25,090 matched controls. BD was found in a higher proportion among SLE patients compared to controls (0.62% vs. 0.26%, respectively, $p<0.001$). BD patients had a greater proportion of smokers compared to non-BD patients (62.5% vs 23.5%, respectively, $p<0.001$). In a multivariate analysis, smoking and SLE were both found to be significantly associated with BD.

Multivariate logistic regression model of covariates associated with Bipolar disorder

	OR	CI	p
Age	1.01	1.00, 1.02	0.137
Gender: Female	1.63	0.96, 2.97	0.087
SES:			
Medium vs. Low	1.06	0.66, 1.69	0.816
High vs. Low	1.17	0.67, 1.98	0.575
Smoking	4.80	3.16, 7.39	<0.001
SLE	**1.74**	**1.11, 2.66**	**0.012**

SES: Socioeconomic status, SLE: Systemic lupus erythematosus.



Conclusions: SLE was found to be independently associated with BD. These findings may imply that an autoimmune process affecting the central nervous system among lupus patients facilitates the expression of concomitant BD.
References:
[1] Kivity S, Shoenfeld Y. Association between autoantibodies and neuropsychiatric manifestations of autoimmune disease: comment on the article by Lauvsnes et al. Arthritis Rheumatol 2015; 67(6):1683.
[2] Meszaros ZS, Perl A, Faraone SV. Psychiatric symptoms in systemic lupus erythematosus: a systematic review. J Clin Psychiatry 2012; 73(7):993–1001.
[3] Unterman A, Nolte JE, Boaz M, Abady M, Shoenfeld Y, Zandman-Goddard G. Neuropsychiatric syndromes in systemic lupus erythematosus: a meta-analysis. Semin Arthritis Rheum 2011; 41(1):1–11.
[4] Zandman-Goddard G, Chapman J, Shoenfeld Y. Autoantibodies involved in neuropsychiatric SLE and antiphospholipid syndrome. Semin Arthritis Rheum 2007; 36(5):297–315.
[5] Kivity S, Agmon-Levin N, Zandman-Goddard G, Chapman J, Shoenfeld Y. Neuropsychiatric lupus: a mosaic of clinical presentations. BMC Med 2015; 13:43.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.3667

THU0249 SUBCLINICAL HAND ARTHROPATHY IN PATIENTS WITH SYSTEMIC LUPUS ERITHEMATOSUS

C.A. Guillen-Astete, M. Revenga-Martinez, A. Zea-Mendoza. *Rheumatology Department, Ramon y Cajal University Hospital, Madrid, Spain*

Background: As well as other systemic inflammatory diseases with joint compromise, there is an interest to identify the presence of synovitis in systemic lupus erythematosus (SLE) patients, in every follow up consultation. In SLE, the research about subclinical synovitis (that, which is clinically unnoticed but demonstrable by means of image studies) is quiet limited. The majority of studies focused on the use of ultrasound (US) assessment of patients with SLE included non selected patients so many of them counted with patients with chronic synovitis or even deformities. Due to that their results are difficult to compare and the real prevalence of subclinical synovitis is still unknown.
Objectives: To determine the prevalence of synovitis in a selected cohort of patients without clinical evidence of arthritis or synovitis.
Methods: We performed a prospective study on 96 SLE patients grouped as follows: Group 0 (20) without no historical or present joint symptoms, Group 1 (34) with intermittent joint pain and Group 2 (42) with intermittent arthritis without deformities or erosions. A systematic US study of the carpal, 2nd and 3rd MCP joint of the non dominant hand were performed to all patients. US findings were expressed according to the nomenclature EULAR recommendations for synovitis, power Doppler signal and composite synovitis index.
Results: Six patients from group 0 showed any grade of synovitis (30%), 13 from group I (38.2%) and 18 from group II (42.8%). From the whole group of subjects, those with at least a synovitis finding was 37 (38.5%).
Into the 2nd MCP joint, 4 patients (20%) from group 0 showed any grade of synovitis, one of them (5%) with power Doppler (PD) signal. The composite index of synovitis and PD signal (CSI) was 0.3 DE 0.36. In group 1, 9 patients (26.5%) showed any grade of synovitis, 4 of them also showed PD signal (11.8%). The CSI for this group was 0.44 DE 0.48. In group 2, 15 patients (14.3%) showed any grade of synovitis and 6 of them also showed PD signal (14.3%). The CSI for this group was 0.59 DE 0.55. Globally, we detected synovitis in 28/96 patients (29.2%) and PD signal in 11 (11.5%).
Into the 3rd MCP joint, 5 patients (25%) from group 0 showed any grade of synovitis, one of them (5%) also had PD signal. The CSI for this group was 0.3 DE 0.36. In group 1, 8 patients had synovitis (23.5%), 3 of them also showed PD signal (8.8%). The CSI for this group was 0.38 De 0.46. In group 2, 15 patients showed any kind of synovitis (35.7%), 4 of them with PD signal (9.5%). CSI index for this group was 0.57 DE 0.61. Globally there where 27/96 patients with synovitis (28.1%) and 8 with PD signal.
Into the carpal dorsal aspect, 5 patients of group 0 has synovitis (25%) and 3 PD signal (15%). CSI was 0.5 DE 0.54. In group 1, 12 patients had synovitis (35.3%) and 5 PD signal (14.7%) CSI was 0.58 DE 0.54 In group 2, 16 patients has synovitis (38.1%) and 8 PD signal. CSI was 0.61 DE 0.51. Globally, 33/96 has synovitis (34.4%) and 16 PD signal (16.7%).
Conclusions: As far as our knowledge goes, this is the first US prevalence study in SLE patients where all deforming and erosive arthritis have been excluded. We have demonstrated that approximately one third of patients without joint symptoms had any grade of synovitis detectable by ultrasonography. The prognosis meaning of our findings will require further prospective initiatives.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.1298

THU0250 EFFECT OF FETAL UMBILICAL ARTERY DOPPLER ON PREDICTION OF ADVERSE PREGNANCY OUTCOMES IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

Z. Zhan, D. Chen, Q. Qiu, Y. Yang. *Department of Rheumatology, the First Affiliated Hospital of Sun Yat-Sen University, Guangzhou, China*

Background: Pregnancies in women with SLE resulted in an increase of adverse pregnancy outcomes (APOs). The predictive value of fetal umbilical artery Doppler examinations for APOs has been reported, while not widely be assessed in SLE pregnant women.
Objectives: To ascertain the predictive value of fetal umbilical artery Doppler for fetal APOs in SLE pregnancies.
Methods: A fetal Doppler ultrasound examination was performed on all fetuses during the third trimester (28～36 weeks of gestation) and the term pregnancy (37～42 weeks of gestation). The Doppler flow parameters of umbilical arteries were recorded, including pulsatility parameter (PI), resistance index (RI), the peak value of umbilical arteries at end-systole (Vmax, also abbreviate as S) and the peak value of umbilical arteries at end-diastole (Vmin, also abbreviate as D). The value of S/D was automatically calculated. Clinical data and pregnancy outcomes were also analyzed retrospectively.
Results: In total, 109 cases of pregnant SLE women performed fetal umbilical artery Doppler at the third trimester and 82 at the term pregnancy. Among the 109 cases, 65 resulted in one or more APOs, including 45 with premature delivery, 23 with intrauterine growth restriction (IUGR), 16 with fetal distress, 8 with neonatal lupus (NLE) and 3 with congenital malformation. Fetus with APOs had higher S/D values compared with fetus without APOs (2.9±0.9 VS. 2.4±0.5, P=0.001). In addition, other Doppler indexes did not differ significantly across groups. The area under the receiver operating characteristic curve was 0.7 (P=0.003) for S/D values, with the optimal cutoff of 2.8. At this cutoff, sensitivity (46.2%) and specificity (90.9%) had the best combination, whereas the positive and negative predictive values were 83.3% and 52.1%, respectively. Among the 82 cases with term pregnancy, 23 resulted in APOs, including 11 with IUGR, 15 with fetal distress, 4 with NLE and 1 with congenital malformation. All of the Doppler indexes (S/D, PI, RI, Vmax and Vmin) in fetus with APOs were higher than those without APOs, but no statistical significance were found between the 2 groups.
Conclusions: Umbilical artery Doppler was a good monitor method for APOs in the third trimester. S/D values were sensitive and specific predictors for APOs in pregnancies complicated by SLE. Women with more than 2.8 S/D could start strict monitoring to rapidly identify and treat obstetric complications.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.2210

THU0251 DIFFERENT RESPONSES TO INDUCTION THERAPY IN TWO ONSET CATEGORIES OF LUPUS NEPHRITIS

M. Nakano[1], A. Mimori[2], R. Kamei[1], K. Suga[1], A. Yashima[1], S. Yamada[1], Y. Takahashi[1], H. Yamashita[1], H. Kaneko[1]. *[1]Division of Rheumatic Diseases, National Center for Global Health and Medicine, Tokyo; [2]Division of Nephrology and Rheumatology, Iwate Prefectural Central Hospital, Morioka, Japan*

Background: We previously reported different clinical features, serological profiles and activities in two onset categories of lupus nephritis (LN): LN that