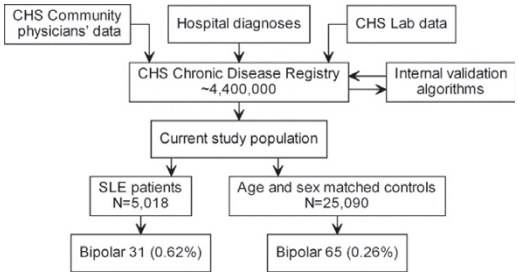
Objectives: The objective of this study was to investigate the association between SLE and Bipolar Disorder (BD) using big data analysis methods.
Methods: Patients with SLE were compared with age- and sex-matched controls regarding the proportion of BD in a cross-sectional study. Chi-square and t-tests 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.
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THU0249 SUBCLINICAL HAND ARTHROPATHY IN PATIENTS WITH SYSTEMIC LUPUS ERITHEMATOSUS

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

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

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