($p < 0.001$ / $p < 0.001$, respectively). ESSDAI had moderate correlation with the number of synovitis ($r = 0.302$, $p = 0.003$) and tenosynovitis ($r = 0.343$, $p = 0.001$) on US. In pSS patients, US detected 225% more erosions than X-ray. Anti-CCP was more frequent in RA patients (85%) than in pSS (16.5%) ($p < 0.001$). Anti-CCP was more frequent in pSS patients (16.5%) than in healthy controls (4.1%) ($p = 0.010$). In addition, this reactivity was associated with higher mean numbers of erosions in wrists ($p = 0.018$) and proximal interphalangeal joints ($p = 0.001$) on US in pSS patients.

Conclusion: US detected higher frequencies of tenosynovitis and erosions in pSS patients than in healthy controls, and the numbers of synovitis and tenosynovitis correlated with ESSDAI, suggesting that US is an important tool for the evaluation of these patients. Moreover, grade 2/3 synovitis and moderate/large erosions appear to be relevant for the distinction between pSS and RA. The additional observation that erosions are associated with anti-CCP in pSS seems to characterize a subgroup of patients with a severe underlying mechanism of joint damage. Grant from FAPESP: 2015/03756-4.

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Disclosure of Interests: Lissiane Guedes: None declared, Elaine Leon: None declared, Margarete Vendramini: None declared, Tamiris Bocate: None declared, Karina Bonfiglioli Speakers bureau: Has received speaking fees from Roche, Pfizer, Bristol-Myers Squibb, Abbvie and Janssen., Eloisa Bonfa: None declared, Sandra Pasoto: None declared
DOI: 10.1136/annrheumdis-2019-eular.4336

FRI0249

THE RISK OF VENOUS THROMBOEMBOLIC EVENTS IN ADULT PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Although observational studies suggest people with systemic lupus erythematosus (SLE) have a heightened risk of venous thromboembolic events (VTE), meta-analyses that integrate evidence across studies to estimate the pooled risk have not been performed.

Objectives: To conduct a systematic review and meta-analysis to estimate the risk of VTE including pulmonary embolism (PE) and deep vein thrombosis (DVT) in patients with SLE.

Methods: We conducted a systematic review using MEDLINE and EMBASE from inception to March 2018 to identify observational studies (cohort and cross-sectional) that evaluated the risk of several major cardiovascular outcomes in patients with SLE compared to a general population or healthy controls (protocol published in PROSPERO 2018 CRD42018098690). Here we report the results for venous thromboembolic outcomes. Studies were included that provided effect estimates (relative risks or hazard ratios) for the calculation of pooled effect estimates. Random effects models were used to calculate pooled risk ratios (RR) and 95% confidence intervals (CI) separately for VTE, PE and DVT. Visualization of funnel plots and the Egger's test were used for evaluation of publication bias. The robustness of the results was tested using the leave one out function. Sensitivity analysis assessed the impact of removing high risk of bias studies (i.e. cross-sectional).

Results: A total of 9 studies were identified for inclusion into the meta-analysis; 7 for VTE (including two cross-sectional studies), 3 for DVT and 4 for PE. Meta-analysis of the VTE studies showed a significantly increased RR of 3.67 (95% CI: 2.10 to 6.42) for patients with SLE compared to a general population. Removing the two cross-sectional studies did not impact the results (RR 4.06 [95% CI: 3.12 to 5.28]). The pooled RRs for PE and DVT were 4.47 (95% CI: 1.79 to 11.15) and 5.51 (95% CI: 2.27 to 13.39), respectively. The statistical heterogeneity was high

with an I^2 ranging between 92% and 99%. Visual examination of the funnel plots showed evidence of publication bias, however this was not supported by the Egger's test. The leave one out function confirmed the robustness of the results.

Conclusion: Overall, the risk of VTE was found to be significantly higher, over three- to six-fold higher, among patients with SLE compared with the general population. Future research should focus on assessing the impact of traditional and SLE-specific modifiable risk factors on VTE to further identify SLE patients most at risk to support targeting prevention and treatment strategies.

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Abbreviations: RE, relative effects

Disclosure of Interests: Nick Pooley Consultant for: I am employed by Maverex who were paid to conduct this systematic literature review on behalf of AstraZeneca., Jinoos Yazdany Grant/research support from: Pfizer, Consultant for: AstraZeneca, Julia Langham Consultant for: I am employed by Maverex who were paid to conduct this systematic literature review on behalf of AstraZeneca., Lindsay Nicholson Consultant for: I am employed by Maverex who were paid to conduct this systematic literature review on behalf of AstraZeneca., Sue Langham Consultant for: I am employed by Maverex who were paid to conduct this systematic literature review on behalf of AstraZeneca., Nina Embleton Consultant for: I am employed by Maverex who were paid to conduct this systematic literature review on behalf of AstraZeneca., Xia Wang Shareholder of: AstraZeneca, Employee of: AstraZeneca, Barnabas Desta Employee of: AstraZeneca, Volkan Barut Employee of: AstraZeneca, Edward R. Hammond Employee of: AstraZeneca
DOI: 10.1136/annrheumdis-2019-eular.3381

FRI0250

SUBCLINICAL ATHEROSCLEROSIS IN SYSTEMIC LUPUS ERYTHEMATOSUS: COMPARABLE EFFECT OF TRADITIONAL CARDIOVASCULAR RISK FACTORS WITH RHEUMATOID ARTHRITIS

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Background: Both rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE) patients are associated with an increased and premature

prevalence of atherosclerosis. This has been characteristically attributed to the inflammation present in both diseases

Objectives: To analyze the differences in the role of traditional cardiovascular risk factors in the subclinical atherosclerosis between the two diseases.

Methods: Cross-sectional study encompassing 602 subjects, 276 SLE and 326 RA patients. Carotid plaques were assessed by ultrasonography. A multivariable regression analysis was performed to evaluate if classic cardiovascular-related risk factors influence differentially on subclinical carotid atherosclerosis in SLE compared to RA patients.

Results: Traditional cardiovascular risk factors were found to be prevalent in RA and SLE patients. Age (interaction factor $p=0.000$), hypertension (interaction factor $p=0.034$), and diabetes (interaction factor $p=0.037$) were found to have a higher effect on cIMT in RA patients compared to SLE subjects. No differences between RA and SLE were discovered in the effect of traditional cardiovascular factors over the presence of carotid plaque when univariate interaction was performed. After final adjustment for demographics, the presence of others traditional cardiovascular factors, and disease related data, no differences were found in the influence of hypertension, diabetes, dyslipidemia or current smoking over cIMT or the presence of carotid plaque. Moreover, the effect of the addition of various cardiovascular risk factors on the subclinical carotid atherosclerosis did not differ between both diseases.

Conclusion: The influence of traditional cardiovascular risk factors (hypertension, diabetes, dyslipidemia and smoking) over cIMT and carotid plaque is equal in RA and SLE. No interaction was found between traditional cardiovascular risk factors and disease related data in the effect of the former on subclinical atherosclerosis.

Disclosure of Interests: Hiurma Sánchez-Pérez: None declared, Juan Carlos Quevedo-Abeledo: None declared, Iñigo Rúa-Figueroa: None declared, Beatriz Tejera-Segura: None declared, Vanessa Hernández-Hernández: None declared, Antonia de Vera-González: None declared, Alejandra Delgado-González: None declared, Raquel López-Mejías: None declared, Soledad Ojeda Grant/research support from: AMGEN, Speakers bureau: AMGEN, Miguel A González-Gay Grant/research support from: Prof. MA Gonzalez-Gay received grants/research supports from Abbvie, MSD, Jansen and Roche., Speakers bureau: Consultation fees/participation in company sponsored speaker's bureau from Pfizer, Lilly, Sobi, Celgene, Novartis, Roche and Sanofi., Iván Ferraz-Amaro: None declared

DOI: 10.1136/annrheumdis-2019-eular.1845

FRI0251

SYSTEMATIC REVIEW OF PREDICTOR MARKERS OF POOR RENAL EVOLUTION IN PATIENTS WITH LUPUS NEPHRITIS

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Background: Lupus nephritis (LN) affects 30-45% of patients with lupus and causes great morbidity and mortality. About 10-25% of patients will develop chronic kidney disease (CKD), and it has been described a mortality of 10-20% at 10 years^{1,2}. Currently there is no ideal biomarker or composite indexes that help us to better assess and monitor.

Objectives: To identify and perform a critical analysis of the prognostic markers and indexes published through a systematic review of the literature in order to subsequently develop an index that helps us to estimate the prognosis of patients with LN.

Methods: We conducted a systematic review and meta-analysis according to the guidelines of the "Cochrane Collaboration" and our results are exposed in accordance with the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses PRISMA statement". We did an electronic search in MEDLINE, EMBASE, CINAHL and Web of Science using free text and MeSH terms. The selection was made by 2 independent authors using a bibliographic manager. First, a selection was made by title and if it seemed relevant, a review of the abstract was made. In case of doubt, the full text was evaluated for a possible inclusion. The articles had to fulfill the following criteria: marker or prognostic index of LN, longitudinal studies, to collect the prognostic factor retrospectively without variable biases suitable for good/poor renal prognosis and LN diagnosed by biopsy. Six authors independently extracted data from the articles on previously tested forms to determine their feasibility, and differences were discussed. The data included the general characteristics and results measured. Also adverse events were reported.

Results: We selected 1010 articles initially, of which we discarded 853 per title. Of the 157 remaining, 84 were selected per abstract, and finally, 62 articles were excluded after the review of the full text. In total,

the 22 studies included 2301 patients, all older than 18 years. Most were single-center and retrospective (65%). Among the analytical markers, serum creatinine (Cr) was one of the most used variables as a predictor of time to CKD depending on the value, which varied according to the studies. It was also associated as a damage predictor according to the SLICC scale. Proteinuria appears in several studies as a marker of progression of LN, associating the amount with renal response, the development of end-stage renal disease (ESRD), the need for dialysis and the appearance of extrarenal events. Other variables analyzed were: demographic (ethnicity, socioeconomic level), immunological (anti-Ro, anti-DNA, anti-C1q and anti-CRP antibodies with poor renal evolution), histopathological (increased need for dialysis in glomerulonephritis IV, thrombotic microangiopathy, C4d deposits or tubular atrophy and association of chronicity index with remission) or therapeutic (hydroxychloroquine with remission).

Conclusion: Although there are several biomarkers to evaluate the LN prognosis, we have no found indexes for LN prognosis assessment in literature. The development of easily reproducible compound index is necessary for the assessment of the prognosis and the severity of patients with LN on debut and during evolution.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6222

FRI0252

CLINICAL AND SEROLOGICAL LUPUS ACTIVITY BEFORE AND AFTER DEVELOPING END STAGE RENAL DISEASE

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Background: SLE disease activity tends to diminish after the development of end stage renal disease (ESRD)^{1, 2}. Nonetheless, some patients continue to show signs of active disease and experience flares after ESRD³. To date, little is known about the evolution of SLE-related symptoms pre and post ESRD. Whether specific symptoms abate after ESRD or a shift towards different manifestations occurs deserves further study. Prompt identification of subtler SLE manifestations is further complicated by a trend towards poor rheumatology follow once ESRD develops. SLE manifestations post-ESRD may be underdiagnosed and undertreated contributing to increased morbidity and mortality.

Objectives: To study the different clinical manifestations and serological markers of SLE disease activity before and after ESRD development.

Methods: We performed a retrospective chart review of SLE patients with ESRD at a tertiary care center between the years of 2010 and 2017. SLE was defined by ACR and/or SLICC criteria. SLE ESRD patients were included if they had at least one visit with rheumatology, nephrology, or primary care pre- and post-ESRD. SLE-related symptoms and serologic markers of disease activity were identified from chart review before and after ESRD onset.

Results: Fifty-eight patients were included. Twenty-five patients had at least one clinical non-renal criteria documented pre-ESRD. Of them, 14 achieved complete clinical remission post-ESRD. Post-ESRD, cytopenias persisted in 49 of the 55 patients who were cytopenic pre-ESRD. Arthritis persisted in 3 of the 13 patients who had arthritis pre-ESRD. Of the 37 patients with hypocomplementemia pre-ESRD, 29 remained hypocomplementemic post-ESRD. Twenty-nine had elevated dsDNA pre-ESRD, of them, dsDNA remained elevated in 16 patients post-ESRD. Six patients developed at least one new clinical criteria post-ESRD. Three patients developed low complement, 5 developed elevated dsDNA, 3 developed new onset of serositis and 4 new onset of arthritis post-ESRD.

Conclusion: Lupus activity may diminish after ESRD onset. However, many patients experience persistent disease activity. New arthritis, serositis, low complements and elevated dsDNA may develop after ESRD. Limited evaluation and documentation of disease activity by non-rheumatology