Figure 3. – time to loss of remission considering a single flare (a) vs. persistent flare (b) by diagnosis, all patients (minimum 150 days in remission).

Conclusion: 6 vs. 12 months of sustained remission did not influence the subsequent rate of LOR. Smoking, the type of TNFi, female gender and duration of disease until biologic treatment were identified as predictors of LOR.

Disclosure of Interests: Pedro Ávila-Ribeiro: None declared, Joao Eurico Fonseca: None declared, Elsa Vieira-Sousa Grant/research support from: MSD, Novartis

DOI: 10.1136/annrheumdis-2019-eular.8034

FRI0660 LONG- AND SHORT-TERM ASSOCIATION OF LOW-GRADE SYSTEMIC INFLAMMATION WITH CARDIOVASCULAR MORTALITY

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Background: Evidence suggests a critical role for inflammation in the pathogenesis of coronary artery/heart disease (CAD/CHD), implicating inflammatory molecules as central mediators of chronic inflammatory processes within the vascular wall. In this regard, patients with chronic inflammatory disease such as RA and SLE are at increased risk, which was attributed to the high levels of inflammatory mediators. However, less is known about the association of low-grade systemic inflammation with the cardiovascular risk.

Objectives: The aim of the present study was therefore to evaluate biomarkers representing low-grade systemic inflammation and their association with mortality in a large cohort of patients.

Methods: The Ludwigshafen Risk and Cardiovascular Health (LURIC) study included 3316 consecutive patients undergoing coronary angiography between June 1997 and May 2001 with a median follow-up of 9.9 years. Before coronary angiography fasting blood samples were collected and plasma levels of interleukin-6 (IL-6), C-reactive protein (CRP) and serum amyloid A (SAA) were measured by immunonephelometry. IL-6 and SAA polymorphisms were genotyped.

Results: During a median observation time of 9.9 years 949 deaths (30.3%) occurred, of these 597 (19.2%) died from cardiovascular events. Plasma levels of IL-6, CRP and SAA were associated with unstable CAD

as well as established risk factors including type 2 diabetes, smoking, lower eGFR, lower triglycerides and lower HDL-C. In addition, IL-6 correlated with age, use of lipid lowering therapy and hypertension, SAA correlated with female gender and hypertension, and CRP correlated with female gender, lipid-lowering therapy and BMI. After adjustment for established cardiovascular risk markers and the other two inflammatory markers, SAA was found an independent risk factor for cardiovascular mortality after a short-term follow-up (1 year) with a HR of 1.41 (1.03-1.93, $p=0.030$), whereas IL-6 was identified as an independent risk factor for long-term follow-up (3, 5-9.9 years) with HRs of 1.21 (1.02-1.43, $p=0.006$), 1.22 (1.06-1.40, $p=0.006$) and 1.18 (1.07-1.31, $p=0.001$), respectively. Although 6 SNPs in the SAA gene were significantly associated with SAA plasma concentrations (none of the IL-6 SNPs associated with IL-6 levels), the genetic risk score was not associated with mortality.

Conclusion: In our large, long-term LURIC cohort study we demonstrate for the first time prospectively that plasma levels of IL-6 and SAA are not only associated with cardiovascular risk factors and the prevalence of CAD but also independently predicted cardiovascular mortality. These findings underline the importance of low-grade systemic inflammation for the cardiovascular risk and the prognostic relevance of inflammatory biomarkers, independently predicting cardiovascular mortality. Although it was not the focus of this study, our findings might suggest that even low-grade inflammation is unfavourable in chronic rheumatic disease.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7919

FRI0661 ASSOCIATIONS OF CURRENT AND CHILDHOOD SOCIOECONOMIC STATUS WITH PATIENT-REPORTED HEALTH OUTCOMES AMONG PATIENTS WITH KNEE OR HIP OSTEOARTHRITIS IN A FAMILY PRACTICE SETTING IN MEXICO CITY

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Background: The life-course approach is a useful framework to understanding socioeconomic inequalities in the prevalence and outcomes of chronic disease,¹ and in particular in osteoarthritis (OA).² Previous studies have measured Socioeconomic Status (SES) in 2 points of the life-course (childhood and current) and found consistent relationships between them and both prevalence and presence of worse outcomes,²⁻⁴ but this relationship has been little explored in the Latin-American region where exposure to low SES throughout the life-course is higher than in developed countries.

Objectives: Our aim was to investigate the association of current and childhood SES with functional status, quality of life and disability among patients with knee or hip OA.

Methods: We recruited patients with self-reported doctor-diagnosed knee or hip OA in a social security family practice setting, excluding patients with other rheumatic diseases liable to causing secondary OA. We measured current SES by education, occupation type and estimated income using a validated tool;⁵ and childhood SES by parental education and occupation type. We measured functional status, quality of life and disability using Spanish-language versions of the WOMAC,⁶ AMICAL⁷ and HAQ-DI⁸ tools. We used Spearman correlations, ANOVA and multiple linear regression to test for significance, with a $p<0.05$ cutpoint.

Results: We recruited 146 patients with a mean age of 69.4 yr. 80% were female; 92%, 30% and 45% suffered from knee, hip and other joint OA, respectively, while 60% had incomes in the upper 2 quintiles of the general Mexican population. We found current income to be the best predictor of WOMAC (Spearman's $\rho=-0.354$, $p<0.01$), AMICAL ($\rho=-0.362$, $p<0.01$) and HAQ-DI scores ($\rho=-0.335$, $p<0.01$), and education to be correlated with all three scores as well. Occupation type was significantly associated with AMICAL and HAQ-DI but not WOMAC scores. Paternal and maternal education, and maternal occupation type, were significantly associated only with AMICAL scores.

In multiple linear regression models were income and maternal education were entered separately, after adjusting for age, sex, BMI and presence of Diabetes and Hypertension, both variables were significantly associated with WOMAC, AMICAL and HAQ-DI scores (adj r^2 0.076-0.157, $p<0.05$). When both variables were entered into multiple linear regression models (adj r^2 0.112 and 0.110), significant associations remained between current income level and WOMAC and AMICAL scores ($p<0.01$), as well as between maternal education and AMICAL scores ($p<0.05$). Associations between both variables and HAQ-DI scores did not reach statistical significance ($p=0.07$).

Conclusion: Among patients with knee or hip OA in our setting, current SES is a significant predictor of functional status, quality of life and disability, while childhood SES – best modeled by maternal education – is a significant predictor of quality of life. More research is needed to elucidate the relationship of SES throughout the life course with outcomes among patients with OA.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.8278

FRI0662

ACTIVATION AND LEUKOCYTE ADHESION IS ASSOCIATED WITH VASCULAR DAMAGE IN PATIENTS WITH RHEUMATOID ARTHRITIS AND PSORIATIC ARTHRITIS

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Background: Patients with inflammatory rheumatic diseases, such as rheumatoid arthritis (RA) or psoriatic arthritis (PsA), have a higher cardiovascular risk than the general population. There are data in other pathologies about the role of leukocyte adhesion on endothelial damage.

Objectives: To evaluate the relationship between leukocyte adhesion and subclinical vascular damage in patients with RA and PsA.

Methods: Observational, cross-sectional exploratory study. Patients with RA and PsA who had at least one previous vascular study were recruited in a tertiary hospital during a period of 3 months. All of them donated a sample of fresh blood. Neutrophils were isolated and perfused on a monolayer of healthy endothelial cells of the umbilical cord vein to evaluate its degree of activation, determining the leukocyte adhesion parameter. The expression of different adhesion molecules was analyzed by flow cytometry. We also gathered demographic (sex, age, BMI), clinical (disease duration, classical CV risk factors) and analytical (CRP, ESR) variables. The previous vascular study consisted of an exploration of the extracranial carotid tree with an Esaote MyLab70XVG ultrasound scanner with a linear probe (7–12MHz) and an automated program for measuring the carotid intima-media thickness (CIMT) using ("Quality Intima media thickness in real-time, QIMT"), the presence of atheroma plaques as per the Mannheim consensus and the measurement of pulse wave velocity (VOP) using the Mobil or graph® device. We consider as pathological the vascular study with the presence of abnormal plaque and/or IMT (> 900µm) and/or VOP (≥ 10m/s). The statistical analysis was performed with the SPSS Statistics 22.0 program.

Results: We included 27 patients, 18 women and 9 men, with a mean age of 58.07 (SD 11.64). Eight patients were diagnosed with RA and 19 with PsA, with mean disease duration of 14 years (SD 7.14). Of these 27 patients, 15 were on biologics, 11 were treated only with DMARDs and one patient was naïve for any immunomodulatory treatment. In addition, 14 (51.9%) were taking NSAIDs and 7 (25.9%) glucocorticoids. Regarding cardiovascular risk factors, 51.9% were exposed to tobacco, 25.9% suffered hypertension, 37% were dyslipidemic, 11% were diabetic and 11% were obese, with an average of 1.41 classic cardiovascular risk factors (SD 1.36) per patient. The previous vascular study had been considered pathological in 44.4% of the patients.

A tendency to greater leukocyte adhesion was observed in those patients with pathological IMT values ($p = 0.059$) and in those patients who presented atheromatous plaque ($p = 0.66$). No significant associations were found in relation to the rest of the adhesion parameters analyzed, nor could subanalysis be performed due to the small sample size.

Conclusion: Our preliminary data suggest that an increase in leukocyte adhesion on the endothelium is involved in the mechanisms of subclinical

atherosclerosis in patients with RA and PsA. Studies with a larger sample size will allow us to confirm these findings, as well as the factors implicated in their development.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7755

FRI0663

TREATMENT WITH BIOLOGIC DRUGS OF PREGNANT WOMEN WITH AUTOIMMUNE DISEASE, EXPERIENCE OF A REFERENCE CENTER IN HIGH RISK PREGNANCY AND AUTOIMMUNE DISEASES

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Background: Autoimmune diseases predominantly affect women of child-bearing age. These women must be without clinical activity before conception, which is usually achieved thanks to immunosuppressive drugs. Also, information on new drugs does not include their possible effects on pregnancy because pregnant women are usually excluded from clinical trials.

Objectives: The aim of the study is to evaluate the safety of biological drugs (BD) in pregnant patients with different autoimmune diseases (AD).

Methods: Patients were prospectively followed in a reference Spanish center for high-risk pregnancies and AD. Follow-up was performed by a multidisciplinary team with at least one obstetrician and one expert clinician in autoimmune diseases. Females exposed to BD during the periconceptional period or during pregnancy were included in the study. Obstetric and neonatal outcomes were assessed.

Results: Between 2015 and 2018 we identified 37 exposed pregnancies in 35 women affected by different AD. At the start of pregnancy, 18 patients were taking infliximab, 11 adalimumab, 3 natalizumab, 2 rituximab, 1 etanercept y 1 tocilizumab.

The AD that required BD were Crohn's disease (20 patients, 54.1%), ulcerative colitis (7, 18.9%), rheumatoid arthritis (4, 10.8%), ankylosing spondylitis (3, 8.1%) and multiple sclerosis (3, 8.1%).

Regarding pregnancies, 5 (13.5%) had left the BD just before the pregnancy. Of these, 1 remained stable and 4 (80%) had a flare during pregnancy requiring restart of BD. Of the 32 pregnancies who took the BD during pregnancy, 8 (25%) abandoned the treatment after knowing the pregnancy, meaning that 2 of them flared; 10 (31.5%) continued with the treatment until the end of the second trimester (week 25-26) and 14 (43.7%) continued during the third trimester, 4 of them kept the drug during the entire gestation due to disease activity.

In our study there was a positive correlation between preconceptional abandonment of the BD and the risk of presenting a flare ($p=0.003$), specially in the first and second trimesters ($p=0.024$). However, no relationship was found between BD and infections in the newborn ($p>0.05$), nor between each of the BD with the risk of infections.

Preconceptional treatment reduced the risk of flare (OR 0.545, 95%CI) and the risk of maternal complications (OR 0.5, 95%CI). Indeed, the presence of a flare during pregnancy increased the risk of maternal complications (OR 2.0, 95%CI).

Pregnancies under BD were compared to healthy controls adjusted by age finding no differences in the preterm delivery rate ($p>0.05$), in the induction rate of delivery ($p>0.05$) nor in the cesarean section rate ($p>0.05$).

Conclusion: In our series, the use of preconceptional BD and/or during pregnancy is not associated with an increase of maternal or fetal complications. However, fewer flares were observed. This may imply that BD can be a good tool for the treatment of women of childbearing age since control of the disease resulted in better maternal-fetal outcomes. However, more studies are needed to determine the usefulness and safety of these treatments during pregnancy.

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