strongest determinant of this adverse effect. In the final model, age >36 years, cumulative dose >4000 mg, and WBC <4.1 × 10⁹/L, were predictive of amenorrhea with adjusted odds ratios of 1.7 for TwHF therapy vs disease modifying anti-rheumatic drug (95% CI, 1.2–3.2, p=0.017), 3.1 age >40 years (95% CI, 1.8–4.7, p<0.001), 2.8 cumulative dose >6000 mg (95% CI, 1.6–4.3, p<0.001), and 2.7 for WBC <3.5 × 10⁹/L (95% CI, 1.4–6.3, p=0.012). The probability of amenorrhea can be as high as 76% or as low as 9% depending on the age, cumulative dose, WBC and the type of combination treatments employed.

Conclusions: This is first study to identify pre-treatment factors predictive of amenorrhea following TwHF therapy. Our model allows for optimum patient counselling and will help clarify expectations for the probability of amenorrhea following TwHF therapy.

REFERENCE:

- [1] Chi Zhang, et al: Safety profiles of tripterygium wilfordii hook f: a systematic review and meta-analysis. *Front. Pharmacol.* 7:402, 2016.

Acknowledgements: The study was supported by the National Natural Science Foundation of China (No. 81503449).

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5099

AB1289

SYSTEMIC FACTORS THAT AFFECT THE PROGRESSION OF PERIODONTAL DISEASE IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

A.M. Heredia¹, G.I. Lafaurie¹, W. Bautista-Molano¹, T.G. Trujillo¹, P. Chalem Ch², J.M. Bello-Gualtero³, C. Pacheco-Tena⁴, C. Romero-Sanchez^{1,3}. ¹Unit of Oral Basic Investigation – UIBO, School of Dentistry, Universidad El Bosque; ²Fundación Instituto de Reumatología Fernando Chalem; ³Rheumatology and Immunology Department, Hospital Militar Central, Bogotá D.C., Colombia; ⁴Investigación y Biomedicina de Chihuahua SC, Chihuahua, Mexico

Background: An association between Rheumatoid arthritis (RA) and Periodontal Disease (PD) has been reported. However, predicting factors of PD progression in patients with eRA are lacking

Objectives: To establish the predictive factors for progression of PD in patients with eRA including clinical and serological active scores of RA and status of PD

Methods: This cohort study evaluated the progression of PD at 280 inter-proximal dental sites in 28 patients within 2 years of diagnosis with eRA and they were evaluated to establish their progression through one year of follow-up. Adult patients were classified according to the 2010 ACR and the EULAR criteria. Periodontal diagnosis was established based on the AAP and the CDC and Prevention criteria. Serum markers of RA (rheumatoid factor, erythrocyte sedimentation rate (ESR), C reactive protein (CRP), and anticitrullinated protein antibodies (APCAs) were evaluated, disease activity was assessed by disease activity score (DAS28-ESR) AND the simplified disease activity index (SDAI). Plaque index, gingival index, pocket depth, and clinical attachment loss (CAL) were evaluated at baseline and at one year follow-up. Data were analysed to establish predictive generalised linear mixed models (GLMM) for clinical attachment loss progression at each site with ≥2 or ≥3 mm CAL

Results: The patients included had an average age of 47.5±12.69 and 75% were women. The comorbidity given by the habit of smoking actively occurred only in 1% of patients. The 35.71% had levels of ESR >20 mm3/h and 39% APCA positive while in 60.71% had CRP ≥3 mg/L and 67.86% of patients had a positive FR. Regarding the indices of activity of the disease, DAS28-PCR >2.6 was found in 67.86% of the patients and SDAI scale >3.3 in 75%. 71.43% of the patients were being treated with DMARD and corticoid therapy. 71.43% of patients had a diagnosis of periodontitis. CAL ≥2 mm and ≥3 mm was observed at 15% and 7.5% of dental sites, respectively. Factors associated with CAL in dental sites were: age, ESR, RF, DAS28, treatment with DMARD-Corticoids, periodontal pocket, CAL and percentage of CAL >5 mm, plaque index, gingival index and haemorrhage. Variables RA associated with activity such as CRP, DAS28, and SDAI showed a similar behaviour and they were more frequently associated in periodontal progressive sites. The principal predictive periodontal factors were the percentage of sites with CAL >5 mm and high gingival inflammation at baseline. Patients receiving combined treatment with disease-modifying antirheumatic drugs (DMARD) and corticosteroids exhibited less CAL. The predictive values of the GLMM for CAL of ≥3 and ≥2 mm were 98% and 82%, respectively

Conclusions: Systemic factors as disease activity score and serum biomarkers such as baseline periodontal status are associated with periodontal disease progression in early RA patients. It is known that the very low daily dose prednisolone in combination DMARD therapy substantially decreased radiographic progression and it could influence periodontal disease progression too in patients with RA in early stages of the disease

REFERENCE:

- [1] Bello-Gualtero JM, et al. *J Periodontol.* 2016;87:346

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3162

AB1290

ANTI CARBAMYLATED PROTEIN IN HEALTHY SYSTEMIC FIRST-DEGREE RELATIVES OF RHEUMATOID ARTHRITIS INDIVIDUALS: RELATION WITH CLINICAL SIGNS OF ARTHRITIS

C. Romero-Sanchez^{1,2}, J. De Avila², L. Chila², M. Mahler³, W. Bautista-Molano^{1,2}, J.M. Bello-Gualtero¹. ¹Department of Rheumatology and Immunology, Hospital Militar Central, Bogotá, Colombia; ²Unit of Oral Basic Investigation, Universidad El Bosque, Bogotá D.C., Colombia; ³INOVA Diagnostics, San Diego, USA

Background: Association studies in rheumatoid arthritis (RA) have been focused in the pre-clinical phases of the disease in asymptomatic individuals with higher risk to develop RA such as first-degree relatives (FDR). A new group of autoantibodies directed against carbamylated proteins (anti-Carp) have been discovered in RA.

Objectives: To investigate the levels of anti-Carp in FDR and establish their association with the state of rheumatic condition and compare these variables with a control group of healthy individuals from general population

Methods: In total, 118 FDR and 118 healthy controls matched by age and gender were included. Rheumatologic (clinical and markers) and periodontal assessment was performed. Individuals selected were over 18 and less than 65 years old were studied in Bogotá-Colombia. A complete medical history related to RA was obtained by rheumatologist. They were assessed by two periodontists calibrated. Cancer, autoimmune disease, recent infection, lactation or pregnancy, use of antibiotics in the last three months, diabetes, edentulous, periodontal and orthodontic treatment in the last six months, were exclusion criteria. Anti-carbamylated-fetal calf serum protein by ELISA (RUO, Inova Diagnostics, San Diego), RF (Rheumatoid Factor, Spinreact), APCAs IgG/IgA (Inova, Diagnosis), Enzyme-linked immunosorbent assay for leptin, Adiponectin based on Luminox xMAP technology, high-sensitivity CRP and IL-6 (Siemens) by chemiluminescence and ESR were evaluated. An association analysis was performed to evaluate the relationship between anti-Carp levels and rheumatologic conditions using Chi square and Fisher test. Logistic regression model was performed to confirm these associations. All the analyses were performed with a level of significance of 95%

Results: In the FDR-group, seventy three percent were female with a mean age of 40.19±12.47 years, 22.2% were current smoker, leptin high in 26.27% and 4.23% and 16.9%, had positive RF and APCAs respectively. Anti-Carp in 26.3%; Among the controls, 70.97% were women, with an average age of 41.0±12.2 years, leptin high in 12.7% (p=0.004), positive RF in 2.5% (p=0.71), ACPA 6.8% (p=0.013) and anti-Carp 15.3% (p=0.027); in the general group 20.8% were positive (49/236) for anti-Carp, of which 63.3% are FDR (OR=2.02 IC 95% 1.03–3.96, p=0.04). Likewise, a greater frequency of painful joint (62.2%) p=0.008 and swollen joint (79.2%) (OR=4.35 CI 95% 1.5–12.36, p=0.006) were observed. The model designed for FDR showed a significant association between anti-Carp positive with or of at least 1 swollen joint adjusted to the presence of leptin levels above the moderate range (OR=2.84, CI 95% 1.20–6.71, p=0.017)

Conclusions: The Research effort aimed at the "risk" phases of RA has increased. That is, before the development of clinical signs of arthritis, to identify those individuals and modify environmental factors and pharmacological intervention. The findings show us a significantly higher frequency of anti-Carp in a cohort of FDR of RA patients compared to healthy controls no associations were found with other autoantibodies but a very interesting way with signs of early inflammation

REFERENCE:

- [1] Alessandri C, et al. *Clinical Exp Rheumatol*, 2015;33:824–30

Acknowledgements:

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3156