in 25 Patients (46.3% of cases). Anti-citrullinated peptide antibody (ACPA) was positive in 32 patients (59.3 %). 41 patients (75.4%) had radiological impairments and 28 (51.9%) had specific deformations of RA. The average disease activity score (DAS28-ESR) and (DAS28-CRP) were respectively 4.1 ± 1.5 [1.4-7.3] 3.4 ± 1.5 [1.24-6.71]. Oral examination revealed a poor oral hygiene in 36 patients (69.2% of cases) and 4.7% of our patients (2 cases) were toothless. Xerostomia was observed in 32 patients (80%). Gingivitis was diagnosed in 26 Patients (52%): localized in 6 patients (26.1%) and generalized in 17 patients (73.9%). 21 patients had periodontitis (41.2%). Basing on bleeding index of Loe and Silness (IG), 27 patients (55.1%) had degree 2 and 9 patients (18.8 %) had degree 3. Supragingival plaque and subgingival plaque were detected respectively in 45 patients (90 %) and 47 patients (95.9 %). In our study, tooth loss was significantly correlated with increased age ($p=0.001$) and post-menopausal status ($p=0.03$). Xerostomia, gingivitis and periodontitis were associated with increased age. But no association was found between oral manifestations and DAS28 nor biological inflammatory parameters.

Conclusion: Rheumatoid arthritis is destructive and disabling rheumatism with a great risk to develop dental and periodontal diseases. So, it is important to systematically control oral hygiene of our patients to prevent complications.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4015

POS0586 RHEUMATOID ARTHRITIS IS AN INFLAMMATORY DISEASE WITH A HIGH CARDIOVASCULAR RISK

L. Nacef¹, H. Riahi², Y. Mabrouk¹, H. Ferjani³, K. Maatallah³, E. Labbene⁴, D. Kaffel¹, M. Bouaziz², W. Hamdi¹. ¹Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Rheumatology, Manouba, Tunisia; ²Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Radiology, Tunis, Tunisia; ³Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Rheumatology, Tunis, Tunisia; ⁴Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Radiology, Manouba, Tunisia

Background: Hypertension, diabetes, and dyslipidemia are traditional risk factors of cardiac events. Carotid ultrasonography is an available way to detect subclinical atherosclerosis.

Objectives: This study aimed to compare the intima-media thickness in RA patients based on their personal cardiovascular (CV) history of hypertension (hypertension), diabetes, and dyslipidemia.

Methods: The present study is a prospective study conducted on Tunisian RA patients in the rheumatology department of Mohamed Kassab University Hospital (March and December 2020). The characteristics of the patients and those of the disease were collected.

The high-resolution B-mode carotid US measured the IMT, according to American Society of Echocardiography guidelines. The carotid bulb below its bifurcation and the internal and external carotid arteries were evaluated bilaterally with grayscale, spectral, and color Doppler ultrasonography using proprietary software for carotid artery measurements. IMT was measured using the two inner layers of the common carotid artery, and an increased IMT was defined as ≥ 0.9 mm. A Framingham score was calculated to predict the cardiovascular risk at 10-year.

Results: Forty-seven patients were collected, 78.7% of whom were women. The mean age was 52.5 ± 11.06 [32-76]. The rheumatoid factor (RF) was positive in 57.8% of cases, and anti-citrullinated peptide antibodies (ACPA) were positive in 62.2% of cases. RA was erosive in 81.6% of cases. Hypertension (hypertension) was present in 14.9% of patients, diabetes in 12.8% of patients, and dyslipidemia in 12.8% of patients. Nine patients were active smokers. The mean IMT in the left common carotid (LCC) was 0.069 ± 0.015 , in the left internal carotid (LIC) was 0.069 ± 0.015 , in the left external carotid (LEC) was 0.060 ± 0.023 . The mean IMT was 0.068 ± 0.01 in the right common carotid (RCC), 0.062 ± 0.02 in the right internal carotid (RIC), and 0.060 ± 0.016 in the right external carotid (REC). The IMT was significantly higher in the left common carotid (LCC) in patients with hypertension ($p=0.025$). There was no significant difference in the other ultrasound sites (LIC, LEC, RCC, RIC, and REC) according to the presence or absence of hypertension. The IMT was also significantly increased in patients with diabetes at LCC ($p=0.017$) and RIC ($p=0.025$). There was no significant difference in the IMT at different ultrasound sites between patients with and without dyslipidemia.

Conclusion: Hypertension was significantly associated with the increase in IMT at the LCC level in RA patients. Diabetes had an impact on IMT in LCC and RIC. However, dyslipidemia did not affect the IMT at the different ultrasound sites.

REFERENCES:

- [1] S. Gunter and al. Arterial wave reflection and subclinical atherosclerosis in rheumatoid arthritis. Clinical and Experimental Rheumatology 2018; 36: Clinical Experimental.
- [2] Aslan and al. Assessment of local carotid stiffness in seronegative and seropositive rheumatoid arthritis. SCANDINAVIAN CARDIOVASCULAR JOURNAL, 2017.

- [3] Martin I. Wah-Suarez and al. Carotid ultrasound findings in rheumatoid arthritis and control subjects: A case-control study. Int J Rheum Dis. 2018;1-7.
- [4] Gobbi C and al. Marcadores subclínicos de aterosclerosis y factores de riesgo cardiovascular en artritis temprana. Subclinical markers of atherosclerosis and cardiovascular risk factors in early arthritis marcadores subclínicos de aterosclerosis e factores de riesgo cardiovascular na artrite precoce.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4080

POS0587 EFFECT OF RHEUMATOID ARTHRITIS TREATMENTS ON THE INTIMA-MEDIA THICKNESS OF SUPRA-AORTIC TRUNKS AND ON CARDIOVASCULAR RISK

L. Nacef¹, H. Ferjani², K. Maatallah¹, Y. Mabrouk², H. Riahi³, E. Labbene⁴, D. Kaffel², W. Hamdi¹, M. Bouaziz³. ¹Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Rheumatology, Tunis, Tunisia; ²Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Rheumatology, Manouba, Tunisia; ³Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Radiology, Tunis, Tunisia; ⁴Mohamed Taieb Kassab Institute of Orthopedic Surgery and Traumatology, Radiology, Manouba, Tunisia

Background: Patients with rheumatoid arthritis (RA) are exposed to a multifactorial cardiovascular risk: chronic inflammation, endogenous and exogenous factors, and treatment.

Objectives: The aim of this study was to investigate the impact of RA treatments on cardiovascular risk and the influence of supra aortic trunks.

Methods: This is a prospective study conducted on RA patients followed-up between March and December 2020 at the rheumatology department of the Mohamed Kassab Institute of Orthopedics and Traumatology. Socio-demographic data of patients and characteristics of the disease were collected. The disease activity was evaluated by the Disease Activity Score 28. Prescribed treatments were specified. Ultrasonography of the supra aortic trunks was performed by measuring, in centimeters, the Intima-media Thickness (IMT) at the level of the left (LCC) and right (RCC) common carotid arteries, the left (LIC) and right (RIC) internal carotid arteries and the left (LEC) and right (REC) internal carotid arteries.

Results: Of the 47 patients surveyed, 78.7% were female. The mean age was 52.5 ± 11.06 [32-76]. The average RA progressed from 86.25 ± 63 [5-288] and was erosive in 81.6% of cases. The rheumatoid factor (RF) was positive in 57.8% of patients, and citrullinated anti-peptide antibodies (ACPA) were present in 62.2%. The treatments taken were: Methotrexate (MTX) (54.5%), Sulfasalazine (SLZ) (1.8%), Leflunomide (LFN) (3.6%), a combination of cs-DMARDs (5.5%), and biotripsy (10.9%). The prescribed biotripsy were: Etanercept (3.6%), Adalimumab (1.8%), Certolizumab (1.8%), Infliximab (3.6%). Corticosteroids (CT) were prescribed in 38.2% of patients, non-steroidal anti-inflammatory drugs (NSAIDs) (3.6%), and analgesics (41.8%).

CT had a protective effect on IMT in LIC ($p=0.031$) and RIC ($p=0.016$). MTX had a significant protective effect on IMT in RIC ($p=0.002$) and LEC ($p=0.033$).

SLZ was associated with an increase in IMT at the RIC level ($p=0.05$). There was no association between NSAID use and IMT. MTX and CT were significantly associated with a decrease in SCORE ($p=0.02$; $p=0.05$, respectively). There was a non-significant association between SLZ or LFN and decreased SCORE ($p=0.140$, $p=0.970$).

Conclusion: In our series, patients taking MTX and CT had a lower IMT than those not taking these drugs. SLZ was associated with an increase in IMT. NSAIDs did not affect IMT in our study.

REFERENCES:

- [1] Pasquale Ambrosino and al, Subclinical atherosclerosis in patients with rheumatoid arthritis A meta-analysis of literature studies. Thrombosis and Haemostasis 113.5/2015
- [2] Hyun-Je Kim and al, Effects of Methotrexate on Carotid Intima-media Thickness in Patients with Rheumatoid Arthritis. The Korean Academy of Medical Sciences 2015.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4120

POS0588 USUAL INTERSTITIAL PNEUMONIA DURING RHEUMATOID ARTHRITIS: PREVALENCE AND ASSOCIATED FACTORS

C. Daldou¹, N. El Amri¹, A. Guiga², S. Laataoui¹, K. Baccouche¹, H. Zegaloui¹, E. Bouajina¹. ¹Farhat Hached Hospital, Rheumatology, Sousse, Tunisia; ²Farhat Hached Hospital, Internal Medicine, Sousse, Tunisia

Background: Lung involvement is the second common extraarticular manifestation of rheumatoid arthritis (RA). Its prevalence varies widely according to the screening tool used and it could reach up to 80% of patients. This lung disease can affect all the lung compartments. However, interstitial lung disease during RA needs a particular attention due to the increased morbidity and usual interstitial pneumonia (UIP) pattern especially due to its higher rate of mortality.

Objectives: To determine the frequency and associated factors of UIP among RA patients

Methods: This was a retrospective study conducted at the Rheumatology department of Farhat Hached University Hospital from 2005 to 2020. We included all RA patients who had undergone high-resolution computed tomography (HRCT) scans of the lung. Demographic data, disease characteristics, pulmonary function tests (PFT) and drugs intake were collected at the time of the realization of the HRCT. UIP pattern and NON-UIP patterns were based on HRCT results. Khi-2 and T-student tests were used in the univariate analysis. Binary logistic regression was used in the multivariate analysis. Statistical significance level was set at 5%.

Results: Fifty-nine patients with RA patients having HRCT of the lung were identified among them 27.1% (16) were male. The mean age of the patients was 60.27 ± 11.3 years; the mean disease duration was 7.16 ± 2.9 years and current or previous smoking habits were recorded in 18.8% (11) of our population with a median. Secondary Sjogren's syndrome and cutaneous rheumatoid nodules were documented in 33.9% (20) and 10.17% (6) respectively. RA was erosive in 81.5% (48) of our population. The median tender joint count and the median swollen joint count were 10 and 4 respectively. The mean erythrocyte sedimentation rate (ESR) and the mean C-reactive protein (CRP) were 49 ± 20.31 mm and 32 ± 14.07 mg/dl respectively. The mean disease activity score (DAS 28 ESR) was 5.49 ± 1.66 . The median rheumatoid factor and Anti-CCP levels were 260 UI/ml and 68 UI/ml respectively. Exertional dyspnea (stage 2 or higher) was present in 42.37% (25) and inspiratory crackles were found in 22.4% (13) of our patients. PFT revealed a restrictive ventilatory defect, an obstructive pattern and a mixed pattern were found in 20.3% (12), 13.6 (8) and 3.4% (2) respectively. The mean DLCO value was $70 \pm 24.6\%$. According to HRCT results, parenchymal involvement was found in 83.1% (49) of our patients and among them, we documented UIP pattern in 18 (36.73%), Non Specific Interstitial Pneumonia (NSIP) in 14.28% (7), unclassifiable fibrosis in 14.29 (7), organizing pneumonia in 2% (1) and isolated pulmonary nodules in 32.6% (16). Pleural effusion was found in 5.1% (3) and airways disease in 15.3% (9). Mediastinal lymphadenopathy was found in 15.25% (9). Abnormalities on HRCT lead to a change in treatment in 30.5% (18) of our patients. Compared to the group with a non-UIP pattern, male sex was significantly associated with UIP pattern on HRCT (47.4% vs. 17.5%, $p=0.016$). UIP pattern was significantly associated with smoking (37.5% vs. 9.4% $p=0.022$, Unadjusted OR=5.88, 95%CI=[1.217-27.634]), with cutaneous rheumatoid nodules (31.3% vs. 3.4%, $p=0.017$, Unadjusted OR=12.72, 95%CI=[1.331-121.658]) and with the presence of lymphadenopathy on HRCT (41.2% vs. 6.5%, $p=0.004$, Unadjusted OR=10.15, 95%CI=[1.803-57.140]). There was no significant difference between the two groups regarding age ($p=0.454$), disease duration ($p=0.126$), DAS28 ($p=0.447$), anti-CCP level ($p=0.454$). After multivariate analysis, male sex (Adjusted OR=11.58, 95%CI=[1.622-82.67] $p=0.015$), Presence of lymphadenopathy on HRCT (Adjusted OR=10.53, 95%CI=[1.146-96.87], $p=0.037$) and exertional dyspnea (Adjusted OR=6.43, 95%CI=[1.036-40.011], $p=0.046$) were independently associated with UIP pattern.

Conclusion: UIP was present in 36.73% and it was the most prevalent pattern of lung involvement in RA. It was associated with male sex, mediastinal lymphadenopathy and exertional dyspnea.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4178

POS0589

PREVALENCE AND SEVERITY OF STRESS AT HOME AMONG PATIENTS WITH RHEUMATOID ARTHRITIS: SINGLE CENTRE RESULTS FROM THE PRIME REGISTRY COHORT

M. Haroon¹, F. Hashmi¹, S. Ullah¹, A. Ashraf², H. J. Shaheen¹, S. Asif¹, S. Batool¹. ¹Fatima Memorial Hospital & FMH College of Medicine and Dentistry, Department of Rheumatology, Lahore, Pakistan; ²CMH Lahore Medical College & Institute of Dentistry, Medicine, Lahore, Pakistan

Background: In chronic inflammatory diseases like rheumatoid arthritis (RA), psychological stress is widely recognised as an important risk factor to negatively affect the disease course. Stress activates the hypothalamic-pituitary-adrenal axis and the autonomic nervous system, which associate with the release of neurotransmitters (i.e. norepinephrine), hormones (i.e. cortisol) and activation of immune cells. Perceived stress can potentially induce the disease exacerbation, but on the other hand, the disease itself might produce significant stress to patients thus the vicious circle is formed and maintained.

Objectives: We aimed to examine the prevalence of mental/emotional stress at home and its associations among patients with Rheumatoid arthritis. We addressed this question using real-world data from the PRIME registry.

Methods: This was a cross-sectional study conducted using data collected at the time of patient enrolment in the PRIME registry. The PRIME Registry is a large, independent, prospective, observational cohort initiated in October 2019 that comprises patients diagnosed with RA, SLE, PsA or AS by a rheumatologist, and is being actively followed up. IRB approval and informed consent was

obtained. We assessed the data for RA patients. The clinical variables studied were gender, age, smoking habits, body mass index, education status, marital status, disease duration, comorbidities (using Charlson Comorbidity Index). Education status was stratified by whether participants completed secondary (high) school education. Evaluation of disease activity and severity was made as per internationally agreed definitions, such as: swollen joint counts, tender joint counts, deformed joint counts, and DAS-28. All participants were directly inquired at the interview during the time of patient enrolment about the presence or otherwise of mental/emotional stress at home, and to rate it from 1-3 (mild, moderate, severe). For better understanding and ease of statistical analysis, dichotomous variable was made with moderate-to-severe stress patients were categorised into one group and none-to-mild stress patients into second group.

Results: The data of consecutive 507 RA patients (mean age 42.3 ± 12.6 years, 73.6% female, disease duration of 80 ± 22 months) was reviewed. Forty-eight percent of patients accepted to have moderate-severe stress at home (moderate stress=29.9%, severe stress=18.3%). On univariate analysis, significant association of moderate-severe stress at home was noted with deformed joint counts ($p=0.036$), higher DAS-28 scores ($p<0.001$), and being married ($p=0.001$). Weak statistical association of age ($p=0.11$), disease duration ($p=0.13$), low education status ($p=0.14$), female gender ($p=0.24$) was noted. On multiple logistic regression analysis, a significant association of moderate-severe stress at home was observed with higher DAS-28 scores (OR 1.76, CI 1.29-2.41, $p<0.001$) and deformed joint counts (OR 1.15, CI 1.00-1.31, $p=0.040$). Following variables were included in multiple stepwise regression analysis: age, disease duration, low education status, married, Das-28 scores, and deformed joint counts. However, when gender was included in the regression analysis, a significant association of moderate-severe stress at home was observed with female gender (OR 3.99, CI 1.47-10.83, $p=0.007$), higher DAS-28 scores (OR 1.8, CI 1.31-2.51, $p<0.001$), with marginal association with deformed joint counts (OR 1.13, CI 0.99-1.30, $p=0.061$).

Conclusion: Stress at home is common among patients with RA, and nearly half of the cohort was noted to have moderate-severe level of stress at home. Ongoing stress at home has significant association with higher RA disease activity and deformities suggesting a bidirectional relationship. These findings demonstrate an important need for integration of rheumatologic, social workers and mental health services

Disclosure of Interests: Muhammad Haroon Speakers bureau: Roche, Novartis, Grant/research support from: Abbvie, Pfizer, Farzana Hashmi: None declared, Saadat Ullah: None declared, Arfa Ashraf: None declared, Hafiza Javeria Shaheen: None declared, Sadia Asif: None declared, Shabnam Batool: None declared
DOI: 10.1136/annrheumdis-2021-eular.4181

Rheumatoid arthritis - biological DMARDs

POS0590

SAFETY AND EFFICACY OF BIOLOGICS IN ELDERLY PATIENTS WITH RHEUMATOID ARTHRITIS IN A REAL WORLD STUDY: USE OF INTRAVENOUS GOLIMUMAB AND INFILIXIMAB IN ADULTS WITH RHEUMATOID ARTHRITIS ≥ 65 YEARS OF AGE

J. Schechtman¹, A. Broadwell², S. Kafka³, S. Black⁴, S. Xu⁵, W. Langhoff⁵, S. Schwartzman⁶. ¹Sun Valley Arthritis Center, Rheumatology, Peoria, United States of America; ²Rheumatology and Osteoporosis Specialists, Rheumatology, Shreveport, United States of America; ³Janssen Scientific Affairs, LLC, Immunology, Horsham, United States of America; ⁴Janssen Research & Development, LLC, Immunology, Spring House, United States of America; ⁵Janssen Research & Development, LLC, Biostatistics, Spring House, United States of America; ⁶Weill Cornell Medical College, Rheumatology, New York, United States of America

Background: AWARE is a real-world evidence-based (RWE) study evaluating the safety and efficacy of IV golimumab (GLM) and infliximab (IFX) in adults with RA.

Objectives: Evaluate safety and efficacy of IV GLM and IFX in elderly AWARE participants.

Methods: AWARE, a prospective non-interventional study (88 US sites), enrolled patients (pts) initiating either IV GLM or IFX. Pt management was at the discretion of treating rheumatologists. In a post hoc analysis, pts were grouped by age ($<65/\geq 65/\geq 75$ yrs). Adverse events (AEs) were collected through the Week (W) 52 database lock (DBL; completed W52 or discontinued study) and at the end-of-study DBL (W104). The primary endpoint was proportion of pts with ≥ 1 infusion reaction through W52. Change from baseline in Clinical Disease Activity Index (CDAI) scores at Months 6 and 12 were secondary endpoints evaluated in bionative pts, including those with IFX dose escalation.

Results: 1270 pts were enrolled (685 IV GLM; 585 IFX). 1047 (82%) pts were female; mean age was 60 yrs (57% <65 yrs, 43% ≥ 65 yrs, and 7% ≥ 75 yrs). Mean disease durations were 9 yrs (IV GLM) and 7 yrs (IFX). Comorbidities were generally similar between IV GLM and IFX groups but more common among pts ≥ 65