SAT0118 ASSOCIATION OF RENIN-ANGIOTENSIN SYSTEM IMBALANCE WITH SUBCLINICAL ATHEROSCLEROSIS AND DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is an independent risk factor for cardiovascular disease (CVD). The renin-angiotensin system (RAS) is a hormonal cascade with important role in hydroelectrolytic homeostasis, blood pressure and regulation of cardiovascular remodeling. Angiotensin II (Ang II) acts as a proinflammatory mediator (1).

Objectives: To investigate the association of serum levels of RAS components with the presence of subclinical atherosclerosis using carotid ultrasonography in women with RA.

Methods: Women with RA according to ACR/EULAR 2010 or ACR 1987 criteria and without clinical ischemic CVD were included. Disease activity was assessed using the DAS28. The presence of atherosclerotic plaques and the thickness of the medium-intimal complex (EIM) of the arterial wall in the common carotid artery were evaluated by ultrasonography. Serum levels of angiotensin (Ang II), Ang-(1-7), angiotensin converting enzyme (ECA) and ECA II were determined by enzyme immunoassay.

Results: 50 women with RA, mean age 48.2 years (±7.32), mean duration of disease of 15.35 years (±8.56), DAS28 of 4.02 (±1.41) and CDAL of 14.23 (±11.53) were included. Seven patients presented altered EMI, eight had atherosclerotic plaque. The prevalence of risk factors for CVD was: 12% of smoking, 12% of family history of premature CVD, 46% of arterial hypertension, 10% of diabetes, 62% of dyslipidemia, 94% of abdominal obesity and 46% of metabolic syndrome. The presence of dyslipidemia, 94% of abdominal obesity and 46% of metabolic syndrome. The prevalence of risk factors for CVD was: 12% of smoking, 12% of family history of premature CVD, 46% of arterial hypertension, 10% of diabetes, 62% of dyslipidemia, 94% of abdominal obesity and 46% of metabolic syndrome.

Conclusions: Imbalance of RAS components, especially Ang II and ECA II, may be associated to CVD in RA patients. Ultrasonography of the carotid arteries can identify patients that could benefit from ECA blockade.

REFERENCE:

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SAT0119 PHYSICAL ACTIVITY IN TUNISIAN ADULTS WITH RHEUMATOID ARTHRITIS

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Background: Physical activity (PA) is associated with multiple health-related benefits among the general population and adults with chronic diseases like responders (p<0.001 and p<0.001 respectively), nevertheless, non-responders showed a rising trend (p=0.086 and p=0.051 respectively). Binary logistic regression model revealed that baseline serum sICAM-1 levels had a positive effect on response to therapy. ROC curve analysis for predictive ability of baseline serum sICAM-1 showed an area under the curve (AUC) of 0.775 (p<0.01).

Conclusions: Serum sICAM-1 and CXCL13 levels were elevated in RA patients, and they were higher in seropositive patients than in seronegative patients. Elevated baseline serum sICAM-1 levels were associated with favorable response to TNF-α inhibitor therapy. The decrease of serum sICAM-1 levels after treatment in responders was consistent with their therapeutic response. Thus, baseline serum sICAM-1 could be a predictive biomarker for TNF-α inhibitor therapy in RA patients. There was a lack of reliable evidence that baseline serum CXCL13 had predictive ability, possibly due to different mechanisms of action or small sample size.

REFERENCES:

Disclosure of Interest: None declared

SAT0117 HIGH URIC ACID AS A RISK FACTOR FOR CARDIOVASCULAR DISEASES IN RHEUMATOID ARTHRITIS PATIENTS

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Background: Rheumatoid arthritis (RA) patients have an increased risk of cardiovascular diseases (CVD). It is unclear whether an elevated serum uric acid (UA) further increases that risk.

Objectives: We study CVD and their risk factors in association with UA in RA patients.

Methods: Adult patients who satisfied the ACR classification criteria for RA from the Kuwait Registry for Rheumatic Diseases (KRRD) from four major hospitals were evaluated from February 2013 through May 2017. Patients with recorded UA were identified and CVD and their risk factors were studied in those patients. To optimize classifier number and prediction accuracy, hierarchical cluster analyses for multiple factors were performed, which indicated nine possible independent CVD risk factors. A binary logistic regression was conducted to examine their significant association with CVD and the independence of UA as a risk factor.

Results: A total of 564 RA patients with available UA were identified, 353(62.6%) females. Mean age was 50.8±11.5 years and disease duration 10.5±2.9 years. Mean UA was 271±78 μmol/L. Of those patients, 31 (5.5%) were reported to have CVD. UA was significantly correlated to the presence of CVD (χ²=6.49, p=0.011). Logistic regression model indicated a 10% increase of CVD with every 10 μmol/L increase in UA. A correlation matrix between UA and other risk factors showed a significant association between high uric acid and a younger age at RA diagnosis (r=0.262), hyperlipidemia (r=0.191) and diabetes mellitus (r=0.244).

Conclusions: Our study suggests that UA may be an independent risk factor for CVD and is associated with the presence of other risk factors. UA should be measured and carefully approached in RA patients.

Disclosure of Interest: None declared
rheumatoid arthritis (RA) [1]. As known, RA affects primarily synovial joints and can lead to loss of function and decreased mobility.

Objectives: The aim of this study was to explore the PA levels of adults with RA and to examine associations between PA and socio-demographic characteristics, immunological features, disease activity and treatment type.

Methods: This is a cross-sectional study including patients with RA (ACR/EULAR criteria). Disease activity was evaluated by Disease Activity Score erythrocyte sedimentation rate (DAS28 ESR). Physical activity was measured using IPAQ-SF (International Physical Activity Questionnaire-Short Form). Its items record the time spent on physical activity of three intensity levels (vigorou, moderate and walking) as well as the time spent sitting in the past week. Both continuous [expressed as metabolic equivalent of task (MET-min/week)] and categorical (low, moderate and high level of PA) scores of IPAQ-SF were determined. Sedentary time (median) was reported in minutes/week. A p value <0.05 was considered significant.

Results: A total of 56 patients with RA were evaluated, 7 men and 47 women. The mean age was 54.9±9.8 years, the mean disease duration was 12.5±11.1 years and the mean DAS28 ESR was 4.3±1.3. The mean body mass index was 28.6 kg/m². Eighty two point two percent of patients were on sDMARD, 17.9% were on Biologics and 64.3% were on prednisone. The mean sedentary time was 2962.2±3327.9 MET-min/week. Thirty point four percent of patients had low level PA, 46.4% had moderate level, and 23.2% of patients had high level PA. Patients with low level PA were significantly older (58.5 years for low level PA versus 55.3 years for moderate level PA versus 49.3 years for high level PA; p=0.035), and significantly more active (DAS28 ESR= 5.2 for low level PA versus 3.8 for moderate level PA versus 3.8 for high level PA; p=0.003). There were no significant differences in the other characteristics across the PA categories. Correlation analysis revealed a significant negative correlation between PA (Total MET-min/week) and both age (p=0.007; r = -0.354) and DAS28 ESR (p=0.023; r = -0.304). Moreover, there was a significant positive correlation between sedentary time and disease activity (p=0.021; r = 0.307).

Conclusions: Our study proved that PA in patients with RA decreased with age and activity disease with a concomitant increase in sedentary time. Given the risks of developing secondary chronic disease as a result of low levels of PA, physical exercise should be recommended as part of comprehensive RA care.

REFERENCE:

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