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AB0243

THE SHORT DISEASE DURATION IS ASSOCIATED WITH WORSE MOOD DISORDER IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is commonly associated with mood disorders, especially depression and anxiety. But the status of mood disorders in RA patients with different courses is unknown.

Objectives: The aims of this study were to investigate the frequencies of depression and anxiety in patients with early RA and non-early RA, and further to identify the risk factors for mood disorders.

Methods: Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) were applied to all enrolled RA patients to assess their corresponding status of anxiety and depression. Besides clinical assessment, power Doppler and grey-scale ultrasound of 22 joints were also performed. The status of mood disorder was studied in early RA patients compared to non-early RA patients. Multivariate regression was used to identify the risk factor for mood disorders.

Results: 201 RA patients were enrolled, with 76 early RA (disease duration $\leq$ 2 years) and 125 non-early RA (disease duration > 2 years) patients. Mood disorder (depression and/or anxiety) was found in 20.9% (42/201) patients. Depression was more often observed in early RA patients than non-early RA patients (26.3% vs. 14.4%, $P=0.036$). The similar trend for anxiety was observed also in early RA patients compared to non-early RA patients, although the difference was insignificant (13.2% vs. 5.6%, $P=0.062$). Multivariate logistic regression analysis showed that disease duration (OR 0.991 [95% CI 0.985-0.998]), rheumatoid factor concentration (OR 2.697 [95% CI 1.165-6.241]), Health Assessment Questionnaire Disability Index (HAQ-DI) (OR 1.045 [95% CI 1.001-1.091]) and grey-scale synovitis score (GS score) (OR 1.092 [95% CI 1.032-1.156]) were independent risk factors for predicting depression in RA. Disease duration (OR 0.983 [95% CI 0.970-0.997]), HAQ-DI (OR 1.069 [95% CI 1.002-1.141]) and GS score (OR 1.073 [95% CI 1.005-1.141]) were independent risk factors for predicting anxiety in RA patients.

Conclusion: Mood disorders were almost doubled in frequency in early RA patients than non-early RA patients. RA Patients with short disease duration, high HAQ-DI and high GS score were more likely to be in depression and anxiety. More attention is needed to the psychological status of RA patients, especially those at an early stage, with poor physical function and severe synovitis.

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AB0244

BODY MASS INDEX AND BODY COMPOSITIONS CORRELATES WITH CAROTID INTIMA MEDIA THICKNESS IN RHEUMATOID ARTHRITIS

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Background: Risk of rheumatoid arthritis (RA) had been reported in overweight obese compared with normal weight people. More, obesity is associated with high prevalence of cardiovascular disease (CVD) risk factors in RA. No previous publications have examined the detailed body composition parameters among RA, or its relation to CVD in RA.

Objectives: This study looked at the body composition and the body mass index and correlated it with the subclinical cardiovascular disease as manifested by carotid intima media thickness (cIMT).

Methods: During 2019, a cross-sectional study was carried out to recruit cases that met the 2010 American College of Rheumatology/EULAR criteria for diagnosis of RA. All the patients were free of cardiovascular and/or cerebrovascular disease. Patients with clinical diagnosis of hypertension, diabetes, renal disease,

dyslipidemia, thyroid disorder and pregnant female were excluded. None of the participants is smoker or had history of smoking.

cIMT ultrasound (US) measures were obtained using a real-time US scanner equipped with a 7.5 MHz linear probe by a single sonographer. Patients underwent a detailed body composition analysis within the same week of the cIMT measurement. The body composition analysis involved assessing the level of total body water, protein, minerals, body fat mass, intra- and extracellular water, basal metabolic rate, waist hip ratio, visceral fat level, obesity degree, bone mineral content, body cell mass, arm and arm muscle circumference, detailed muscle fat analysis, obesity analysis, segmental lean analysis, weight control parameters, and segmental fat analysis.

Results: During 2019, 35 female RA patients were recruited that met the inclusion criteria. The mean (SD) of the age was 52 (10) with a minimum of 20 and maximum of 72 years old. The mean (SD) of cIMT was 0.59 (0.098) mm with a minimum of 0.38 and maximum of 0.87. The mean (SD) of the BMI was 30.7 (7.0) with a minimum of 20 and maximum of 56.9 Kg/m². Mean systolic blood pressure was 126 (19) with a minimum of 91 and maximum of 140 mmHg. Also, the mean diastolic blood pressure was mmHg 74 (11) with a minimum of 49 and maximum of 96.

The correlation of cIMT with the parameters of the body composition in a linear regression analysis showed a positive linear relationship between cIMT and each of the Body fat mass (kg): $P=0.045$, CI: 0.000-0.004, BMI ($p=0.029$, CI: 0.001, 0.009), the target weight ($p=0.040$, CI: 0.000- 0.001), extracellular water ($P=0.033$, CI: 0.002, 0.034) and bone mineral content ($p=0.031$, CI: 0.009, 0.192).

The Multiple linear regression analysis showed persistence of the relationship between the cIMT and the age of the participants ($p=0.049$, CI: 0.001-0.007) and the BMI ($p=0.031$, CI: 0.002- 0.032), with R^2 of the model was 0.38.

Conclusion: To the best of our knowledge, this is the first paper to examine the detailed body composition parameters among RA and found a good correlation with subclinical cardiovascular disease as manifested by cIMT. More research with larger study population is needed to look at the association between body mass index and CVD risk factor in RA.

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AB0245

RHEUMATOID ARTHRITIS DISEASE ACTIVITY AND VITAMIN D LEVELS IN A COLOMBIAN COHORT

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Background: There seems to be a relationship between 25-hydroxyvitamin D [25(OH)D] level and rheumatoid arthritis (RA)(1). It has been proposed that susceptibility for RA exists in selected patients with low 25(OH) with conflicting results (2,3) Regarding disease activity, most of the evidence suggests an inverse relationship of disease activity with 25(OH)D levels(4). To our knowledge, there is only a small study that suggests low 25(OH) D levels as a predictor of disease activity (5) in our region

Objectives: We aimed to evaluate the possible association of low 25(OH) D levels and disease activity in a large cohort of patients with Rheumatoid Arthritis in Colombia

Methods: We evaluated the clinical records of 3576 patients with RA that fulfilled the 2010 EULAR Classification Criteria for Rheumatoid Arthritis and that were managed in our autoimmunity center between 2014 and 2017. Registries that contained both the measurement of 25(OH)D levels and DAS28 VSG with no more than 6 months apart and that also had at least a mean 12-month follow-up were included. We classified 25(OH) D insufficiency as levels $\leq$ 20ng/ml. We evaluated differences in achieving disease control depending on the 25(OH) D levels with McNemar's test. Disease control was defined as DAS28VSG $\leq$ 3.2

Results: A total of 880 patients were included, 90% were female and their mean age was 63 years and 24.3% had 25(OH) D insufficiency. The vast majority were seropositive and only 13% were on biologics (Table 1). A 25% of patients who 25(OH)D insufficiency had DAS28 3.2 and a year of follow-up decreased to 24% with medical intervention ($p=0.1$), while patients without 25(OH)D insufficiency