obesity was defined by WHO criteria and the hand grip strength was evaluated by dynamometry. Sarcopenia was defined according to The European Working Group on Sarcopenia in Older People, as Skeletal Muscle Mass Index less than 5.45 kg/m² in women and less than 7.26 kg/m² in men, while sarcopenic obesity was defined by the presence of sarcopenia more abdominal obesity. The GCs use and dosage (prednisone and methylprednisolone) were analyzed reviewing the clinical records. Anti-cyclic citrullinated peptides (anti-CCP) antibodies, rheumatoid factor (RF) levels, high sensitivity C reactive protein (hsCRP), erythrocyte sedimentation rate (ESR) were determinate. The morning stiffness, clinic activity of disease (DAS28-ESR score) and disability index functional (HAQ-DI) were measurement.

Results: In this study 86% of the population had sarcopenia and 44% sarcopenic obesity. The 62.8% under GCs therapy. The prednisone dosage was positively associated to sarcopenia (>5 mg/day; OR=4.3, p=0.003) and sarcopenic obesity (OR=3.2, p=0.06). The intramuscular pulse of methylprednisolone (40 mg/kg) was associated to sarcopenic obesity phenotype (OR=2.61, p=0.09). Regarding the clinical and serological markers in RA, high disease activity (DAS28-ESR score) was associated to sarcopenia (OR=6.6, p=0.01) and sarcopenic obesity (OR=6.3, p=0.02). The morning stiffness (p=0.03), RF (p=0.05), anti-CCP positive (p=0.03) and HAQ-DI score (p=0.04) were too associated, mainly to sarcopenic obesity.

Conclusion: Sarcopenia and sarcopenic obesity are associated to GCs dosage and with serological and disease activity markers in RA patients from southern Mexico. So that is needed promote monitoring and management of sarcopenia and sarcopenic obesity in RA patients.

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FRI0049 COGNITIVE IMPAIRMENT AND RHEUMATOID ARTHRITIS IN MOROCCAN PATIENTS

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Background: Cognition in rheumatoid arthritis is regaining interest in publications lately. A recent experimental study(1), have shown that low grade chronic periodontal infection by *Porphyromonas gingivalis* result in the development of neuropathology that is consistent with that of Alzheimer dementia in adult mice. This same pathogen has been linked previously in many studies to the development of RA. These findings are raising existing doubt about an association between cognitive impairment and RA.

Objectives: Our study aims to assess cognitive impairment in RA patients in remission state.

Methods: It is a cross-sectional study realized at the rheumatology department of our University hospital. Our established RA patients regularly followed were asked to fulfill the Arabic version of the mini mental state examination (A-MMSE)(2) twice (initially and 15 days later) and the Patient Health Questionnaire (PHQ-9)(3) test for depression. Patients with neurological history (stroke, chronic infection and hematoma) have been excluded. Data about demographic, clinical (body mass index, Disease Activity Score of 28 joints, Health Assessment Questionnaire, modified total sharp score), biological (C-Reactive Protein, blood cell count, Anti-Citrullinated Peptide Antibodies, thyrotropin, vitamin B12, folic acid) characteristics was recorded. A-MMSE under 24 after adjustment for the level of education as recommended was considered abnormal. A cut-off of 10 of the PHQ-9 was considered as suggestive of depression. A descriptive study and regressions were done by SPSS.20 software and p<0.05 was taken as significant.

Results: A total of 80 patients were recruited, with an average age of 55.9 ± 8.5 years. Women were predominant (86.3%) in this population with an illiteracy rate of 66.3%. Our patients were ACPA positive in 93.8% of the cases, with mean disease duration of 11.4±8.65 years. They were receiving cDMARDs in 96.3%. Their average DAS28CRP was 2.19 ± 0.92, and their mean HAQ was 1.14±0.89. Five patients had thyroid disease and were receiving treatment, 20% of the population had anemia but with correct vitamin B dosage (essentially iron deficiency). The A-MMSE was abnormal in 57% at the first time, and in 38.8% of

the cases at the second try fifteen days later, while 27.5% of the patients had a PHQ9>10. The fields of altered A-MMSE were: attention and calculation (46.3%), copying (53.8%), orientation (38.8%), recall (25%) and language (41.3%).The immediate recall part was little concerned. No association was found for low MMSE in regressions with age, gender, menopause, BMI, disease parameters (HAQ, DAS, CRP, ACPA, mTSS) or other possible influencing factors (uric acid, creatinine clearance). An elevated PHQ was not correlated to A-MMSE in our patients (P=0.22). Only their level of education was significantly related to A-MMSE (p<0.0001).

Conclusion: It is certainly true that the interpretation and evaluation of cognitive functions is a difficult task, especially in an illiterate and disabled patient. However, in our study A-MMSE results were low even after test repetition, and in a state of disease remission. Although these results underscore the high frequency of cognitive impairment in RA patients, we estimate that further studies are eligible to confirm causality.

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FRI0050

CARDIOVASCULAR RISK IN THE RHEUMATOID ARTHRITIS PATIENTS OF THE GULF CORPORATION COUNCIL-GCC: WHAT CONTRIBUTE TO THE CAROTID INTIMA MEDIA THICKNESS

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Background: Rheumatoid arthritis (RA) is a common inflammatory joints disease that occurs in 1-3% of population. RA patients are at higher risk of cardiovascular disease (CVD). This accelerated atherosclerosis can't be fully explained by the traditional CVD risk factors. The CVD risk factors had never been investigated in the RA patients of Gulf Corporation Council (GCC).

Objectives: For the first time, this study assesses the CVD as manifested by carotid intima media thickness (cIMT) and the CVD risk factors (traditional and non-traditional) in RA GCC-population.

Methods: 216 RA (179 (83%) F and 37 (17%) M) GCC patients, who were free of atherosclerosis (CVD & Cerebrovascular diseases) included over 5 years (2013-2018). Diabetic, hypertensive, gout, renal and thyroid patients, pregnant, current smokers and those with history of smoking, and patients on diuretics medications were excluded. cIMT ultrasound (US) measurements were obtained using a real-time US scanner equipped with a 7.5-MHz linear probe. Blood tests (full blood counts, liver function, renal profile, and inflammatory markers), demography details, and body mass index (BMI) had been obtained within the same week of the cIMT scan. The correlation between cIMT and other variables were calculated using simple linear and multivariate regression analysis.

Results: The mean cIMT was 0.58 ± 0.11 mm (Min 0.28, Max 0.98). The mean age was 48 ± 13 years (48 ±12 yrs for females, 50±16 yrs for males, p= 0.279).

univariate regression analysis showed a positive linear relationship between cIMT and age of the participants (p=0.001, CI: 0.00, 0.01), hemoglobin (Hb) (p=0.006, CI: 0.004, 0.023), hematocrit (p=0.006, CI: 0.001, 0.008), mean cell volume (MCV) (p=0.027, 0.000, 0.004), mean cell hemoglobin (p=0.04, CI: 0.000, 0.009), platelet (p= 0.000, CI: -0.001, -0.000), monocytes (p= 0.02, CI: 0.001, 0.018), eosinophils (p= 0.011, CI: 0.002, 0.018), erythrocyte sedimentation rate (ESR) (p=0.04, CI: 0.000, 0.001), creatinine (p=0.002, CI: .000, 0.002), uric acid (p=0.002, CI: 0.0001, 0.0004), triglycerides (p=0.033, CI: 0.002, 0.044), low density lipoprotein (LDL) (p=0.002, CI: 0.010, 0.045), C-reactive protein (p= 0.000, CI: 0.001, 0.002), ferritin (p=0.000, CI: 0.000, 0.001), body weight (Kg) (p=0.018, CI: 0.000, 0.002), body mass index (Kg/Ht²) (p=0.026, 0.000,