The mean ESR and CRP were 46.3 ± 29.3 mm [5-120] and 15.8 mg/l [0.6-100] respectively. The mean DAS28 ESR was 4.68 ± 1.35 [1.50-7.16] and the mean DAS28 CRP was 3.9 ± 1.1 [1.02-6.05].

A significant positive correlation was noted between both DAS28 ESR and DAS28 CRP and, number of nocturnal awakenings ($r=0.385$, $p=0.013$ and $r=0.448$, $p=0.002$), morning stiffness duration ($r=0.495$, $p=0.001$ and $r=0.617$, $p<0.001$), GPA ($r=0.485$, $p<0.001$ and $r=0.530$, $p<0.001$), and pain VAS ($r=0.594$, $p<0.001$ and $r=0.598$, $p<0.001$). No correlation was found between the two scores and fatigue VAS.

No significant agreement was noted between PATSAT and DAS28 ESR ($\kappa=0.077$, $p=0.478$).

Conclusion: PROs showed moderate to strong correlation with disease activity scores. The timely and effective use of PROs could encourage physicians to focus more on the impact of RA on patients and how patients are feeling. This in turn would facilitate shared decision making between patients and physicians.

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AB0189

LIPOPROTEIN ABNORMALITIES IN RHEUMATOID ARTHRITIS PATIENTS

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Background: The lipid paradox is termed the decreased cholesterol level in rheumatoid arthritis (RA). Nevertheless, the apolipoprotein levels are usually higher than a healthy person and are predictors of cardiovascular events.

Objectives: We aimed to describe lipid abnormalities in RA patients and to look for predictor factors of these changes.

Methods: The prospective study was carried out on patients with RA who met the 2010 American College of Rheumatology (ACR)/European League Against Rheumatism (EULAR) classification criteria. These patients were followed in the rheumatology department of the Kassab Institute.

We collected the socio-demographic data, biological and immunological parameters.

The lipid assessment included: a measurement of total cholesterol (TC), HDL, LDL, and triglycerides (TG). Lipoproteins APOA1 and APOB were measured. All data were collected after patient consent.

Results: Of the 47 patients recruited, 78.7% were female. The mean age was 52.5 ± 11.06 [32-76]. The average RA progressed from 86.25 ± 63 months [5-288] and was erosive in 81.6% of cases. The rheumatoid factor (RF) was positive in 57.8% of patients, and citrullinated antipeptide antibodies (ACPA) were present in 62.2%. Eight patients had a previous CV history.

Mean TC was 4.42 ± 1.3 [1.2-7.58], mean HDL was 1.38 ± 0.73 [0.18-4.10], mean LDL was 2.55 ± 1.16 [0.24-5.54]. The mean TG value was 1.28 ± 0.6 [0.24-5.54]. TC elevation was found in 9.1% of cases, HDL in 21.3% of cases, LDL in 5.5% of cases, and TG in 16.4% of cases. Mean APOB/APOA1 ratio was 0.67 ± 0.18 [0.46-1.11]. LDL elevation was associated to a high DAS28 ($p=0.06$, $r=0.512$). APOA1 was associated to a low DAS28 ($p=0.04$, $r=-0.642$).

The mean value of APO A1 was 1.36 ± 0.21 [0.84-1.81], that of APOB was 0.90 ± 0.22 [0.58-1.40]. APOA1 values were lower in patients with high-level LDL ($p=0.767$). The APOB value was associated with lipid disturbance without significant correlation ($p=0.291$).

Conclusion: Lipid test abnormalities can be found in RA patients outside of any known CV risk factors. APOA1 seems to have a protective effect. Screening and treatment of these abnormalities can prevent CV risk.

REFERENCES:

- [1] Miguel Bernardes and al. Coronary artery calcium score in female rheumatoid arthritis patients: Associations with apolipoproteins and disease biomarkers. *Int J Rheum Dis*. 2019;00:1-16.
- [2] Anna So dergren and al. Biomarkers associated with cardiovascular disease in patients with early rheumatoid arthritis. *PLOS ONE*. August 5, 2019.

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AB0190

LIVER INVOLVEMENT IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) can be associated to extra-articular manifestations and comorbidities, including hepatic disturbances. It can be related to an underlying viral, metabolic or immune disease, or to a medical treatment toxicity [1].

Objectives: We aim to study liver involvement in a group of RA patients.

Methods: We performed a cross sectional study in 249 RA patients responding to the ACR/EULAR 2010 criteria for RA diagnosis. Hepatic enzymes, B and C hepatitis viruses screening tests, abdominal ultrasonography, biliary tract MRIs, fibrotests and fibroscans if available were collected and analysed.

Results: Two hundred and forty-nine patients were included with 83.8% of women. The mean age was 59 ± 11.67 years. The mean age at diagnosis was 47 ± 14.9 years with a mean disease evolution of 11 ± 8.83 years.

The mean disease activity (DAS28) was 4,66 with levels ranging from 0.12 to 7.78.

Liver abnormalities were found in 68 patients (27.3%).

Viral disease represented 32.3% of liver abnormalities and was found in 8.8% of the total number of patients. Positive anti-HBc antibodies with negative HBs antigen were found in 8.4% of the patients, no viral reactivation with conventional or biological disease-modifying anti-rheumatic drugs was noted.

Besides, 4 of the 249 patients had positive HCV antibodies tests; one of them had a reactivation of a hepatitis C infection after treatment with leflunomide, one had a chronic C hepatitis with chronic liver disease, one had an old B and C hepatitis infection and the last one had an associated liver nodule for which an exploration was triggered. One patient had post hepatitis C cirrhosis associated with a hepatocellular carcinoma treated with surgery and an association of ledipasvir and sofosbuvir with a negative serology.

Medical treatment toxicity was responsible for 25% of liver abnormalities. Paracetamol caused both hepatic cholestasis and cytolysis in 5 patients, and isolated cholestasis in 2 patients. NSAIDs caused both hepatic cholestasis and cytolysis in 2 patients, and isolated cholestasis in one patient. Methotrexate was responsible for isolated cholestasis in 2 patients, isolated hepatic cytolysis in one patient and both cholestasis and cytolysis in one patient. An interaction between methotrexate and fluconazole caused one case of hepatic cholestasis and cytolysis. Treatment of a latent tuberculosis with isoniazid and rifampicin was responsible for cholestasis in one patient.

Immune hepatic disease was present in 3 patients: 2 patients had a primary biliary cholangitis that manifested with a cholestasis and one patient had an auto-immune hepatitis that manifested with cytolysis and cholestasis.

The prevalence of hepatic steatosis was of 4.8%, assessed with ultrasonography or microscopic examination of a liver biopsy. Hepatic enzymes test was normal in 2%, showed isolated cholestasis in 2% and both cholestasis and hepatic cytolysis in 0.8% of the patients.

One patient had a secondary hemochromatosis to multiple transfusions for sickle cell anaemia, causing cholestasis and cytolysis.

No aetiology was found for hepatic cholestasis and/or cytolysis in 7.2% of patients.

Conclusion: Liver involvement in RA is common and has different aspects. A careful monitoring of liver enzymes tests is crucial to detect hepatic disease and prevent its evolution to a chronic liver disease and cirrhosis. On the other hand, screening for viral hepatitis B and C is necessary to prevent an aggravation of a chronic infection and a reactivation of a latent one [2].

REFERENCES:

- [1] Sellami M, Saidane O, Mahmoud I, Tekaya AB, Tekaya R, Abdelmoula L. Etiological Features of Liver Involvement in Rheumatoid Arthritis. *Curr Rheumatol Rev*. 2020;16(4):332-6.
- [2] Karadağ Ö, Kaşifoğlu T, Özer B, Kaymakoglu S, Kuş Y, İnanç M, et al. Viral hepatitis screening guideline before biological drug use in rheumatic patients. *Eur J Rheumatol*. mars 2016;3(1):25-8.

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AB0191

ON WHICH FACTOR TO ACT TO REDUCE CARDIOVASCULAR RISK IN PATIENTS WITH RHEUMATOID ARTHRITIS?

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Background: Patients with rheumatoid arthritis (RA) are at higher cardiovascular risk (CVR) than the general population due to chronic inflammation. Several factors, both modifiable and non-modifiable, can increase this risk. Intima-media thickness (IMT) was considered as a marker for atherosclerosis.

Objectives: This study aimed to identify predictor factors of increasing IMT.

Methods: The prospective study was carried out on patients with RA who met the 2010 American College of Rheumatology (ACR)/European League Against Rheumatism (EULAR) classification criteria. These patients were followed in the