AB0133

LATE-ONSET AND BONE LOSS IN RHEUMATOID ARTHRITIS: WHAT FACTORS SHOULD WE CONSIDER?

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Background: Rheumatoid arthritis (RA) is an inflammatory rheumatism that causes alterations in bone components through the increased production of pro-inflammatory cytokines. Besides traditional risk factors of osteoporosis (OP), elderly RA patients are at higher risk of progressive decline in bone mineral density resulting from the disease.

Objectives: This study aimed to determine factors associated with bone loss in late-onset RA patients.

Methods: A cross-sectional study including patients with RA (according to ACR/EULAR classification criteria) in whom disease onset was after age 65 years. Sociodemographic data, daily calcium intake, and menopausal state were recorded. The characteristics of the disease were transcribed, including inflammatory markers (erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP)), the disease activity assessed by Disease Activity Score 28 (DAS28), seropositivity for anti-cyclic citrullinated peptide antibody (ACPA) and rheumatoid factor (RF), and treatment modalities (cumulative dose of corticosteroids and Methotrexate). Bone mineral density (BMD) was assessed by Dual-energy X-ray absorptiometry. The risk of hip fracture (HF) and major osteoporotic fracture (MOF) after ten years were assessed using the fracture risk assessment tool (FRAX). Patients were divided into two groups (G1 with bone mineral loss (BML) and G2 without BML). Statistical analysis was performed using Kruskal-Wallis Test and chi-square. The level of significance was fixed for $p < 0.05$.

Results: The study included 58 late-onset RA patients with a female predominance (sex ratio M/F=0.3). The mean age was 71.6 ± 5.9 years [65-85], and the mean disease duration was 3.1 ± 2.9 years [0-15]. The mean calcium intake was 416.4 ± 168.6 mg per day [168-1043]. The mean BMD was 1.5 g/cm^2 [0.1-28.3] at the vertebral site and $0.7 \pm 0.2 \text{ g/cm}^2$ [-0.1, 1.2] at the femoral site. Bone loss was found in 55.2% of cases and was significantly associated with age ($p=0.022$) and longer disease duration ($p=0.015$). Similarly, there was a positive correlation between CRP and BML ($p=0.023$). However, bone loss was not correlated to sex ($p=0.865$), RF and ACPA positivity ($p=0.9$, $p=0.1$ respectively), or to coxitis ($p=1$). Similarly, disease activity, body mass index, and calcium intake were comparable between the two groups ($p=0.311$, $p=0.179$, $p=0.099$, respectively). G1 had a higher incidence of fractures without reaching a statistically significant correlation (63.2% in G1 and 51.3% in G2, $p=0.393$). Also, G1 had a higher risk of MOF ($p=0.003$) but not with a higher risk of HF ($p=0.127$). Regarding treatment modalities, the BML was significantly correlated to non-steroidal anti-inflammatory drug (NSAIDs) intake (85.7% in G1 and 37.8% in G2, $p=0.001$), but was not correlated to the cumulative dose of corticosteroids ($p=0.384$) and Methotrexate ($p=0.054$).

Conclusion: Our study showed that age, disease duration, NSAIDs, and inflammation were risk factors for a bone mineral loss in late-onset RA. Screening for these factors would be useful as part of an ideal form of fracture risk management.

Disclosure of Interests: None declared

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AB0134

RELATIONSHIP BETWEEN INFLAMMATORY RATIOS AND RADIOGRAPHIC JOINT DAMAGE IN RHEUMATOID ARTHRITIS

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Background: The tight control strategy is recommended in rheumatoid arthritis to tailor treatment for patients. This strategy requires regular monitoring of both disease activity and structural damage. However, radiographic assessment cannot be performed frequently and the modified Sharp score is rarely evaluated in current practice. Besides, no biomarker was able to mirror structural damage (1).

Objectives: Our study aimed to assess the relationship between the modified Sharp score and the inflammatory ratios (platelet to lymphocyte ratio (PLR), neutrophil to lymphocyte ratio (NLR), lymphocyte to monocyte ratio (LMR), fibrinogen to albumin ratio (FAR) and CRP to albumin ratio (CAR)).

Methods: We performed a cross-sectional study including 53 patients with rheumatoid arthritis (RA). A cell blood count, fibrinogen and an albumin blood test were measured for each patient. Inflammatory ratios were also measured (PLR, NLR, LMR, FAR, and CAR). Modified Sharp score and its components (erosion score and joint space narrowing score) were evaluated using the radiograph of hand and foot.

Patients with infectious or hematological diseases were excluded from the study. Statistical analysis was performed using SPSS (Statistical Package for Social Sciences).

Results: Of the 53 patients, 39 were female (Sex Ratio: 2.8). The mean age was 53.9 ± 12.7 years. The mean disease duration was 10.1 ± 8.2 years. The average age of the onset of the disease was 43.8 ± 13.5 years.

The mean DAS 28-ESR score was 4.64 ± 1.23 . Forty three patients had a score higher than 3.2 (patients with moderate or high disease activity).

The mean values of PLR, NLR, LMR, FAR and CAR were 161.62 ± 86.59 , 2.84 ± 2.39 , 4.99 ± 3.23 , 0.12 ± 0.06 and 1.15 ± 1.38 .

The mean scores of joint erosion and joint space narrowing were respectively 12.76 ± 15.05 and 33.57 ± 25.80 . The mean modified Sharp score was 46.33 ± 37.74 .

There was a positive correlation between modified Sharp score and following ratios: PLR ($r: 0.501$; $p < 10^{-3}$), NLR ($r: 0.302$; $p: 0.031$), FAR ($r: 0.300$; $p: 0.030$), CAR ($r: 0.286$; $p: 0.042$).

Moreover, a positive correlation between joint space narrowing score and these ratios was identified: PLR ($r: 0.558$; $p < 10^{-3}$), NLR ($r: 0.428$; $p: 0.002$), FAR ($r: 0.371$; $p: 0.007$), CAR ($r: 0.387$; $p: 0.005$).

Joint erosion score correlated with PLR ($r: 0.299$; $p: 0.033$).

No correlation was found between LMR and radiographic score.

Conclusion: Our study showed that the modified Sharp score correlated with PLR, NLR, FAR and CAR in patients with RA. This finding suggests that these ratios could be used as inexpensive and reliable markers to reflect radiographic joint damage. Longitudinal studies are necessary to confirm our results.

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AB0135

A VERY EARLY CLINICAL RESPONSE TO TOFACITINIB IS ASSOCIATED WITH LOW RHEUMATOID ARTHRITIS ACTIVITY AFTER 3 AND 6 MONTHS

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Background: JAK inhibitors block intracellular signaling pathways responsible for the synthesis of cytokines and mediators involved in the development of chronic pain and central sensitization (CS). This determines a very rapid clinical response to JAK inhibitors. However, it is not clear how the significant pain reduction in the first weeks of therapy is associated with the achievement of low rheumatoid arthritis (RA) activity.

Objectives: to assess the relationship between the early clinical response to tofacitinib and the decrease in RA activity after 3 and 6 months.