Background: Psoriatic arthritis (PsA) is a systemic chronic inflammatory disease, which leads to irreversible destruction of the joints. Multiple factors drive the development of this heterogeneous disease including genetic predisposition, environmental triggers, and immunologic dysfunction. Even structural damage differs significantly between patients, with a subset of patients suffering from severe and rapid (rheumatoid arthritis-like) bone destruction (arthritis mutilans), while others experience only modest signs of bone damage, or develop new bone formation.[1]

Objectives: The study aims to identify potential predictors for radiographic such as clinical, radiographic, and laboratory parameters.

Methods: In this retrospective data analysis 231 patients with PsA and at least two available x-rays were included. Radiographs were scored according to Sharp-van-der-Heijde-total Score (mSvdHTH) modified for PsA and a mean annual progression (MAP) rate was calculated by dividing the change in mSvdHTH between two x-rays number of years between them. For each patient, the median of the annual progression rates was calculated. Patients were grouped in no progressors (MAP < 0.5), low progressors (MAP 0.5 < MAP ≤ 2.5) and high progressors (MAP > 2.5). Clinical data such as the clinical disease activity index (CDAI), radiographic data and laboratory data (CRP, ESR, C-terminal Teleopeptide) were analysed for their predictive value of radiographic progression using parametric and non-parametric statistical analysis according to the distribution of data. For correlation analysis Spearman’s rank coefficient was used. For group analysis ANOVA was used. Dichotomous variables such as gender or nail involvement were analysed using z2-test. Multiple linear regression analysis was used to identify factors influencing radiographic progression.

Results: The mean baseline mSvdHTS in high progressors was 41.59 (43.53), 19.89 (34.93) in low progressors and 16.25 (26.77) in non-progressors. Baseline mSvdHTS was significantly correlated with MAP (r=0.27, p=0.002) rate. Group analysis comparing clinical and laboratory parameters in patients again showed significant difference baseline mSvdHTS. The high progression cohort also exhibits greater mean CRP, ESR, CDAI, median first year CDAI, TJC68, SJC66 and a higher percentage of nail involvement than low- or non-progressors but no statistically significant result was found. In a multiple linear regression analysis baseline SvdHS (β = 0.51, 95% CI 0.28-0.73, p<0.001), median CDAI in the first year after baseline (β = 0.51, 95% CI 0.19-0.83, p=0.018) and CDAI at baseline (β = -0.82, 95% CI -1.25 – -0.19, p=0.043) were significantly associated with mean annual progression. No association was found between MAP and bone turnover markers.

Conclusion: This study shows a clear association of Sharp-van-der-Heijde score at baseline with future radiographic progression. Moreover, the median CDAI in the first year after baseline was associated with radiographic progression.

REFERENCE:

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AB1142 Does obesity play a role in foot involvement in psoriatic arthritis?

Keywords: Spondyloarthritis, Comorbidities, Psoriatic arthritis

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Background: Several studies have reported a higher prevalence of obesity in Psoriatic Arthritis (PsA)[1]. Obesity may lead to more weight on the joints, namely on the ankle/foot joints, altered mechanics, and repetitive micro-trauma. Foot involvement is common in PsA, including arthritis, dystrophic nails, toe dactylitis and Achilles enthesitis. Obesity has been found to be associated with higher disease activity and worse functionality scores in PsA patients.[1]

Objectives: The purpose of this study was to evaluate the role of obesity in foot involvement in PsA patients.

Methods: A retrospective study including patients with PsA (all patients fulfill CASPAR criteria) followed from January to May 2022, from a Rheumatology Clinic. Patients were divided into two groups: with current or previous foot involvement (assessed clinically or by ultrasound) (group 1) and without current or previous foot involvement (group 2). Sociodemographic, clinical and laboratory data were collected. Obesity was defined as a body mass index greater than or equal to 30 Kg/m2 and multimorbidity was defined as 2 or more comorbidities. Descriptive analysis was performed using means and standard deviation (SD), medians and Interquartile range (IQR) for continuous data, and frequencies and percentages for qualitative variables. Clinical, laboratory and radiological findings were compared between patients with and without foot involvement using parametric and non-parametric tests, with a p-value ≤ 0.05.

Results: A total of 154 patients were enrolled (mean age of 57.08 (±11.54) years and 39.6% were women). Foot involvement was found in 110 patients (71.40%). Obesity was more prevalent among patients with foot involvement – group 1 (40.90% vs 13.64%: p<0.001). Enthesitis was found in 35.10 % of patients with Achilles enthesis (28%) as the most frequent manifestation. PsA patients in group 1 who were obese had higher prevalence of Achilles enthesis (p= 0.01).

18.18% of patients had current/previous toe dactylitis and dystrophic nails were found in 37.7% of patients (no differences were encountered between obese and non-obese patients). Multimorbidity were more frequent in PsA patients with foot involvement- group 1 (p=0.04). We found a higher frequency of extra-articular manifestations and higher HAQ disability index values in patients with foot involvement (p=0.03 and p<0.001, respectively). Although we did not find statistically significant differences in the HAQ disability index between obese and non-obese patients with foot involvement, there was a predominance of disability in obese patients. PsA patients in group 1 who are obese have higher C-reactive protein (p=0.01) and higher consumption of non-steroidal anti-inflammatory drugs (p=0.02). We did not find statistically significant differences in swollen and tender joint counts, in conventional and biological DAMARS between obese and non-obese patients in group 1.

Conclusion: Obesity was more prevalent among PsA patients with foot involvement, suggesting its presence may enhance and contribute for foot complaints in these patients. Patients with foot involvement had higher HAQ disability index levels, reflecting the negative impact of foot involvement in daily functionality in these patients. Our study highlights the importance of obesity management in PsA patients with foot involvement. Further studies are needed to develop weight reduction strategies that can applied in clinical practice, in order to improve outcomes related to PsA.

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AB1143 mir-10b expression in psoriatic arthritis patients with dapsa score remission or low disease activity

Keywords: Biomarkers, Psoriatic arthritis

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Background: Psoriatic arthritis (PsA) is a heterogeneous inflammatory rheumatologic disease associated with psoriasis. The etiopathogenesis of PsA has not been fully elucidated. Although activity scores are used in the follow-up of patients, reliable biomarkers are not yet available. MicroRNAs (miRNA) are non-coding RNA oligonucleotides whose cellular expression levels change in pathologic disease associated with psoriasis. The etiopathogenesis of PsA has not been fully elucidated. Although activity scores are used in the follow-up of patients, reliable biomarkers are not yet available. MicroRNAs (miRNA) are non-coding RNA oligonucleotides whose cellular expression levels change in inflammatory and autoimmune diseases and provide gene expression regulation. miRNAs are being investigated for their potential biomarker properties in the diagnosis and follow-up of psoriatic arthritis.

Objectives: In this context, the current study aimed to determine the changes in mir-10b expression level in patients with PsA who have remission/low disease activity according to DAPSA score and in age-sex matched healthy population.