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AB0575

FACTORS ASSOCIATED WITH PSORIATIC ARTHRITIS ACTIVITY IN CLINICAL PRACTICE

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Background: Psoriatic Arthritis (PsA) is a multifaceted disease with various clinical domains. A number of composite indices has been developed recently [1, 2]. DAPSA (Disease Activity in Psoriatic Arthritis) is the valid instrument for assessment of PsA activity focused on peripheral arthritis. But other factors can influence on PsA activity and haven't studied yet.

Objectives: to identify factors that are associated with PsA activity based on the data from RU-PsART cohort.

Methods: 117 (M/F=63(54%)/54(46%)) patients (pts) with active PsA fulfilling the CASPAR criteria mean age 44.3 ± 10.9 yrs, mean DAPSA 37.8±21.4, mean PsA duration 73.4±78.4 mo, mean PsO duration 213.4±152.5 mo, were included. Data was collected from 43 rheumatology centers of the Russian Federation. All pts underwent standard clinical examination of PsA activity at enrollment. DAPSA, ESR (mm/h), CRP (mg/L), dactylitis, enthesitis by LEI plus Plantar Fascia, BSA (%), HAQ-DI and fatigue by Fatigue Scale (V.4) FACIT (Functional Assessment of Chronic Illness Therapy), BMI (kg/m²) were evaluated. DAPSA > 28 indicate high activity. Multi-dimensional step-by-step discriminant analysis was used to identify a group of features that are associated with high PsA activity by DAPSA. M±SD, %, OR 95% (CI) were performed.

Results: The following features proved to be the most informative: LEI (p=0.739), tenderness of the Plantar Fascia (p=0.003), age (p=0.0004), FACIT (p=0.092), PsA duration >2 yrs (p=0.013), BSA>3% (p=0.021), Nail PsO (p=0.092), BMI (kg/m²) (p=0.22). The area under the ROC-curve (AUC) 0.768, 95% CI (0.624-0.913). Sensitivity/ Specificity of model 77.0%/ 69% accordingly (Figure 1).

Figure 1 ROC analysis of the Sensitivity and Specificity of the model.

Conclusion: Weight, enthesitis, skin and nail PsO severity, fatigue and PsA duration >2 yrs are associated with high PsA activity as well as articular symptoms.

New combination indices based on these features should be developed and validated in clinical practice.

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AB0576

BONE EROSION IN PSORIATIC ARTHRITIS ASSOCIATED WITH PSORIASIS DURATION, SKIN, NAIL AND JOINT DISEASE SEVERITY

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Background: Psoriatic arthritis (PsA) is heterogeneous in its clinical presentation and disease course, but many patients (pts) develop a destructive form of arthritis. Psoriasis (PsO) precedes arthritis by an average of 7 years. [1]. Theory of transition from PsO to PsA has been proposed recently [2]. But association between skin disease severity and joint disease are still unclear.

Objectives: to evaluate association between bone erosion, PsO duration, skin and nail disease severity in PsA pts based on data from clinical practice (RU-PsART cohort).

Methods: 737 (M/F=350/387) PsA pts fulfilling the CASPAR criteria were included. Mean age 47.4±12.7 years (yrs), PsA duration 55[17;120] mos., PsO duration 165[74.5;292] mos., mean DAPSA 23.3[14;36.9] mos., HAQ-DI - 0.98 [0.5;1.38], CRP - 7.4 [2.1;18] mg/L. All pts underwent standard clinical examination (tender joints count (TJC)/68, swelling joints count (SJC)/66, CRP (mg/L), DAPSA, dactylitis, enthesitis by LEI + Plantar Fascia (PF), HAQ-DI. Mild disease was defined as body surface area (BSA)≤10%, moderate to severe as BSA>10%. The presence/absence of nail PsO was evaluated. X-ray of feet and hand were done in 622 out of 737 pts. The one-factor model of logistic regression was used to identify a group of features that are associated with achievement MDA. M±SD, Me [Q25; Q75], Min-Max, %, t-test, Pearson-χ², Mann-Whitney tests, ORs with 95% CI were performed. All p<0.05 were considered to indicate statistical significance.

Results: PsO precedes of PsA by an average of 9.2 years. BSA≤10% was found in 615 out of 672 pts (91.5%), BSA>10% - in 57 out of 672 pts (8.5%). Nail PsO were seen in 230 out of 737 (31.2%). Bone erosion was found in 237 out of 622 of pts (38.1%). Among these pts nail PsO were seen in 67 out of 237 pts (28.3%). Enthesitis found in 236 out of 737 pts (42.1%), dactylitis - in 197 out of 731 pts (27%), axial PsA - in 315 out of 731 pts (43.1%). Bone erosion significantly associated with PsO duration more than 5 yrs., skin and nail PsO severity, high PsA activity by DAPSA, axial manifestation and duration of PsA > 36 mos. (Figure 1).

Figure 1 Forest plot of factors associated with bone erosion in PsA pts.

Conclusion: In our cohort the majority of PsA pts had mild PsO preceded PsA on average of 9.2 yrs. Bone erosion was found in 30% of PsA pts which associated with PsO duration, skin and nail disease severity as well as with PsA activity. Early diagnosis and therapeutic intervention within a "window of opportunity" are very important for improving outcomes and prevent structural damage in PsA.

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AB0577

METABOLIC SYNDROME IN PSORIATIC ARTHRITIS SEEMS ASSOCIATED TO INFLAMMATORY STATUS OF THE DISEASE

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Background: Evidence suggests that inflammation plays a causal role in the development of Metabolic Syndrome (MetS) and elevated peripheral levels of proinflammatory mediators, such as C-reactive protein (CRP) conferring cardiovascular and metabolic risk.

Objectives: The objective of this study was to evaluate Metabolic Syndrome among patients with PsA naïve to biologics and to evaluate its association with inflammatory activity status previous start them.

Methods: We performed a retrospective cross-sectional study of a cohort of patients ≥18 years of age, all patients with a diagnosis of PsA (CASPAR criteria), included in the Sueiro Cohort. Patients were managed according to a standard protocol adopted at the Rheumatology outpatient clinic of six hospitals and they were patients on follow-up for at least 6 months. Collected variables included age and gender, blood biochemistry, blood count, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), HLA-B27 and rheumatoid factor, glucocorticoid, NSAID and conventional or biologic DMARD, smoking habit, hyperuricemia, type 2 diabetes mellitus, obesity (BMI kg/m²). MetS was defined by a combination of abdominal obesity, impaired fasting glucose, atherogenic dyslipidemia, and elevated blood pressure. Status of disease activity was supported by tender and swollen joint counts (TJC68 and SJC66) from patients who were going to start treatment with biologics and Patient-reported outcome measure were collected with Patient Global Assessment (0-10 cm) and Patient Pain Assessment (0-10 cm). Remission and low disease activity status was obtained by DAPSA score and its defined cut-off. Tests were two-tailed with a significance level of 5%. Data were analyzed using SPSS V21.0 statistical software (IBM Corp. NY, USA).

Results: A total of 416 were included in the study: 222 PsA patients treated with csDMARD kept in remission or low disease activity and 194 patients needed to be treated with bDMARD. The mean age of the patients was 53.0 years (SD: 11.8). Two hundred and twenty-eight were males (56.2%).

Fifty-six patients had MetS (13.8%) and it was more frequent in patients who were in clinical activity and they needed biologics (17.9% vs 10.4%, p 0.028) with mean (SD) of DAPSA of 16.7 (11.1). Patients starting treatment with biologics and with MetS had more proportion of patients older than 50 years (24.2 % vs 8.3%, p 0.006) and CRP >5 mgr/L (71.4% vs 52.6%, p 0.042) and DAPSA had higher values than in patients without MetS (18.6 vs 16.2) but there were not significant statistical differences. Binary regression analysis showed increased risk of MetS for age > 50 years old (OR 3.287 [95%CI: 1.258-8.591], p 0.015) and CRP > 5 mgr/L (OR 2.684 [95%CI: 1.141-6.313], p 0.024) but not for gender (OR 2.136 [95%CI: 0.932-4.893], p 0.073) neither for DAPSA >14 (OR 1.539 [95%CI: 0.695-3.409], p 0.288).

Conclusion: Patients with PsA active despite csDMARD had more prevalence of MetS and this was associated with those patients over 50 years old and CRP higher than normal values. DAPSA was higher in patients with MetS but without reaching significant statistical difference.

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AB0578

SUBCLINICAL ENTHESITIS IN PSORIASIS PATIENTS AS PREDICTOR OF ARTHRITIS (EPESCA STUDY): PRELIMINARY RESULTS

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Background: Enthesitis is one of the typical pathological signs of spondyloarthritis such as psoriatic arthritis (PsA) and it seems to be the *Primum movens* of the disease. Clinical assessment of enthesitis showed to be less sensitive, compared to ultrasound (US) evaluation, in identifying enthesitis in patients with PsA [1].

OMERACT defined US enthesitis as: "hypoechoic and/or thickened insertion of the tendon close to the bone (within 2mm from the bony cortex), which exhibits Doppler signal if active and that may show erosions, enthesophytes/calcifications as a sign of structural damage" [3]

The reported prevalence of subclinical enthesitis in psoriasis (PsO) patients in different countries ranges between 7% and 20% [2].

Objectives: The main objective of this study was to estimate, by US evaluation, the prevalence of subclinical enthesitis in PsO patients without any clinical signs of enthesitis. Secondary objectives were to analyze differences, in terms of age, sex, BMI, PsO onset and diagnosis, among patients with enthesitis (active or not active), enthesopathy and without any alteration of enthesitis.

According to the OMERACT definition of ultrasound enthesitis, patients were divided into 4 groups: patients with active enthesitis (AE) defined as the presence of power-Doppler signal in a hypoechoic and/or thickened insertion of the tendon close to the bone; patient with enthesitis (En) defined as hypoechoic and/or thickened insertion of the tendon close to the bone without PD signal; patients with enthesopathy (Ep) defined as the presence of structural damage (erosions, enthesophytes/calcifications); patients without any alteration of enthesitis (WE).

Methods: Patients with at least 18 years and a diagnosis of PsO made by a Dermatologist were included. Exclusion criteria were the presence of clinical symptoms or signs of articular or enthesal involvement, diagnosis of arthritis and therapy with bDMARDs or tsDMARDs.

All patients underwent US examination on grey scale and Power Doppler (PD) ultrasonography of 6 sites (Achilles, quadriceps, distal and proximal patellar, plantar fascia and triceps enthesitis) bilaterally. Ultrasound was performed by an experienced sonographer, using a Logiq P9 equipped with 6-12 MHz broad band linear transducer. Data were reported as frequencies and median with interquartile range. To check differences among these four groups, we used chi-square test or Kruskal-Wallis test. P-value ≤ 0.05 is considered statistically significant.

Results: We enrolled 124 consecutive psoriasis patients (47 [37.9%] female) with median age 57.7 (45.3-66.5) years, median disease duration 20.4 (10.1-30.8) years, median BMI 27 [24-29]. Patients with AE, En, Ep were 20.2% (25/124), 49.2% (61/124) and 18.5% (23/124), respectively.

Patients WE (12.1%, 15/124) showed significantly lower BMI, younger age and shorter diagnostic delay compared to the other patients.

All signs of enthesopathy/enthesitis were more frequently observed at Achilles (33.1%, 41/124), triceps (23.4%, 29/124), quadriceps (20.2%, 25/124), distal patellar (18.5%, 23/124) and proximal patellar (4.8%, 6/124) enthesitis.

Conclusion: Subclinical enthesitis is quite common in PsO patients, and about 20% showed active enthesitis. The enthesopathy seems to be more frequent in patients with increased delay in PsO diagnosis, older age and higher BMI.

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