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AB0746

EVALUATING TENDER AND SWOLLEN JOINTS FOR THE ASSESSMENT OF INFLAMMATORY PAIN IN PSORIATIC ARTHRITIS USING ULTRASOUND

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Background: Tender and Swollen Joint Counts (TJC, SJC) are items of disease activity scores in rheumatoid arthritis (RA) and psoriatic arthritis (PsA). Recent studies suggest that TJC do not adequately reflect ongoing inflammation in RA when using Ultrasound (US) as a reference standard, and that pain might be due to other, non-inflammatory causes.^{1,2} In PsA, the role of tenderness and swelling of joints for reflecting active inflammation has not been well studied so far.

Objectives: To evaluate tender (TJ) and swollen joints (SJ) for the assessment of inflammation in PsA.

Methods: We performed a prospective study on 83 PsA patients undergoing clinical and ultrasound examinations at two study visits scheduled 12 months apart. Tenderness and swelling were assessed for 68 and 66 joints respectively and US examinations, including grey scale (GS) and power doppler (PD) were conducted at all 68 joints. GS- (range 0-204) and PD sum scores (0-204) were calculated. At patient level, correlations were performed between TJC, SJC and clinical or US values. At joint level a GS value ≥ 1 and/or PD value ≥ 1 was defined as active synovitis, which was compared to whether a joint was tender, swollen or both. A generalized linear mixed model was created to assess the predictive value of TJ and SJ for active synovitis after 12 months, taking into consideration the joint site.

Results: At baseline the median TJC and SJC for 83 patients was 4 (range 0-59) and 1 (0-20), respectively and the median GSS- and PD sum score was 16 (3-56) and 3 (0-31) respectively. SJC correlated with the GSS sum score ($r=0.37$, $p=0.004$) and PD sum score ($r=0.47$, $p<0.001$), while TJC only correlated with PD sum score ($r=0.33$, $p=0.01$). TJC correlated better than SJC with patient reported outcomes like patient global assessment (TJC: $r=0.57$, $p<0.001$; SJC $r=0.39$, $p=0.002$) and health assessment questionnaire (TJC: $r=0.50$, $p<0.001$, SJC no significant correlation). Swollen joints (with or without tenderness) showed active synovitis (GSS ≥ 1 and/or PD ≥ 1) in 67.6% of cases, while tender joints (with or without swelling) showed signs of US activation in only 34.5%. A joint that was considered swollen at baseline was more likely to express active synovitis after 12 months (OR: 4.3, 97.5 CI: 2.9-6.2), compared to a joint that was either tender or swollen at baseline (OR: 2.8, 97.5 CI: 2.1-3.5).

Conclusion: SJC are more closely linked with US signs of inflammation as compared to TJC in PsA. While swelling of a joint predicts US inflammation after a year, the information whether the joint is additionally tender or not, gives no additional predictive information.

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AB0747

SPECIFIC ULTRASOUND LESIONS IN PSORIATIC ARTHRITIS: PREVALENCE AND CORRELATION WITH DISEASE ACTIVITY

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Background: Psoriatic arthritis (PsA) is a systemic inflammatory disease with articular and extra-articular features. In recent years, Ultrasonography (US) is playing an important role in the diagnosis and monitoring of this disease. Specific US features of PsA have been reported such as enthesitis, peritendon extensor tendon inflammation (PTI) and soft tissue edema.

Objectives: The aims of this study were to evaluate the prevalence of these US signs in PsA patients and to determine their association with disease duration and activity.

Methods: Patients with peripheral PsA responding to the Classification Criteria for Psoriatic Arthritis (CASPAR) were enrolled. Clinical and biological data were extracted, and then US examination was performed by an experimented rheumatologist blinded to clinical data using a machine type Esaote MyLab 60 with a linear probe of 6-18 MHz. The following US features were evaluated: PTI at the dorsal aspect of metacarpo-phalangeal (MCP) joints, soft edema at the volar aspect of MCP joints and enthesitis of the digitorum extensor at the dorsal aspect of distal inter-phalangeal (DIP) joints.

A $p<0.05$ was considered statistically significant.

Results: We included twenty PsA patients, 8 men and 12 women, with a mean age of 55 ± 11 [33-77] years old. The mean disease duration was of 10 ± 8 [1-34] years. A family history of PsA or psoriasis was reported in 53% of cases.

Oral corticosteroids were used in 21% of patients, at a mean daily posology of 7 mg [5-10] of Prednisone equivalent, Methotrexate in 84% of cases at a mean posology of 15 mg [10-20] per week, Sulfasalazine in 10% of cases and a biological DMARD in 32% of cases (Etanercept=4, Infliximab=1, Adalimumab=1). The mean number of tender and swollen joints were respectively of 8 [0-16] and 2 [0-8]. The mean rate of patient global evaluation and visual analogue scale was of 5 [0-9].

The mean DAPSA (Disease Activity in Psoriatic Arthritis) score was of 32 ± 27 [4-112].

US examination demonstrated that all patients had at least one of the three specific signs that we were looking for. At MCP level, PTI was noted in 11% of joints with Power Doppler (PD) signal in one case and soft tissue edema was noted in 3% of joints.

At DIP level, enthesitis of digitorum extensor tendon was noted in 39% of joints. The elementary lesions reported were: enthesophyte in 25%, erosion in 8%, calcification in 5% and thickened or hypoechoic tendon in 4% of joints. However, no PD signal was detected at the enthesitis.

A positive association was found between DAPSA score and soft tissue edema ($p=0.000$), but not with PTI (0.668) and enthesitis (0.137). No relation was found between these three lesions and the disease duration.

Conclusion: The presence of soft tissue edema, enthesitis and/or PTI on US can be an argument for the diagnosis of PsA. Soft tissue edema is shown to be associated with disease activity.

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AB0748

IMPORTANCE OF COMORBIDITIES IN PATIENTS WITH ARTHRITIS PSORIATIC

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Background: Cardiovascular diseases are more prevalent in inflammatory arthritis, such as psoriatic arthropathy (PsA), than in general population. An increase in the presence of anxiety-depressive disorders has been also described in patients with psoriatic disease.

Objectives: To assess the prevalence of comorbidities in a cohort of patient with PsA, especially cardiovascular events and anxiety-depression disorders.

Methods: Observational, cross-sectional study of a cohort of patients with PsA from a monographic clinical unit in a rheumatology department to describe the presence of comorbidities: hypertension, diabetes, hyperlipemia, hyperuricemia, smoking, obesity, depression and ischemic heart disease (IHD). The

Table 1. Comorbidities in patterns of disease.

	PsA (n=145)	Peripheral disease (n=94)	Mixed disease (n=31)	Axial disease (n=20)
Age at diagnosis, year (DE)	45,4 (± 13)	45,7 ($\pm 12,9$)	45 (± 13)	43,9 ($\pm 13,8$)
Time of evolution, years (DE)	9,3 ($\pm 6,2$)	9,6 ($\pm 6,5$)	8,6 ($\pm 5,4$)	7,3 ($\pm 2,9$)
Men, n (%)	84 (57,9%)	48 (51,1%)	26 (83,9%)	10 (50%)
Women n (%)	61 (42,1%)	46 (48,9%)	5 (16,1%)	10 (50%)
Hyperlipemia, n (%)	87 (60%)	60 (63,8%)	17 (54,8%)	10 (50%)
BMI >25, n (%)	83 (57,2%)	61 (64,9%)	15 (48,4%)	7 (35%)
Hypertension, n (%)	46 (31,7%)	28 (29,8%)	13 (41,9%)	5 (25%)
Hyperuricemia, n (%)	41 (28,3%)	25 (26,6%)	11 (35,5%)	5 (25%)
Diabetes, n (%)	27 (18,6%)	20 (21,3%)	6 (19,4%)	1 (5%)
Smokers, n (%)	26 (17,9%)	13 (13,8%)	10 (32,3%)	3 (15%)
Depression, n (%)	23 (15,9%)	16 (17%)	6 (19,4%)	1 (5%)
Metabolic syndrome n (%)	23 (15,9%)	15 (16%)	5 (16%)	3 (15%)
IHD, n (%)	15 (10,3%)	7 (7,4%)	6 (19,4%)	2 (10%)

comorbidities were analyzed according to the type of disease: peripheral, mixed and axial involvement. For statistical analysis SPSS v.25 was used.

Results: We included 145 patients: 84 men and 61 women. The mean age at diagnosis was 45.4 (± 12.9) years, and the mean time of evolution was 9.3 (± 6.2) years. No significant difference between genders was observed.

Peripheral involvement was observed in 94 (64.8%), mixed 31 (21.4%) and axial involvement in 20 (13.8%). We did not find any differences between gender for peripheral and axial pattern, however 31% of men versus 8.2% of women presented a mixed pattern. [OR=5 (1.8-14), $p=0.001$].

The most common comorbidities founded were hyperlipemia, overweight and arterial hypertension. Table 1 shows all the comorbidities studied and their distribution by pattern.

Patients with mixed involvement had a higher proportion of smokers [OR=2.9 (1.2-7.3), $p=0.02$] and a tendency to higher IHD [OR=2.8 (0.9-8.6), $p=0.06$].

Overweight was significantly lower in axial pattern patients [OR=0.4 (0.2-0.8), $p=0.01$] and higher in the peripheral ones [OR=1.5 (1.1-2.1), $p=0.01$].

IHD was prevalent in patients of our cohort (10.3%), it was significantly higher in men than in women [OR=12 (1.5-93.9), $p=0.003$], and more likely in mixed involvement (19.4%).

Males with PsA also developed hyperuricemia more frequently [OR=6.5 (2.5-16.9), $p<0.0001$]. Metabolic syndrome was found in 15.9%, but there was no significant difference among the patterns. Although, it was associated with hyperuricemia [OR=21.6 (6.7-69.8), $p<0.0001$] and ischemic heart disease [OR=12.4 (3.8-40.1), $p<0.0001$]. Finally, the rest of the comorbidities analyzed did not show significant difference in gender and pattern of disease.

Conclusion: In our cohort, a high prevalence of comorbidities was found, especially hyperlipemia, metabolic syndrome and IHD. In general, overweight (BMI > 25) was very common and was associated to a peripheral disease while the axial disease showed as a protective factor.

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AB0749 COMPARING PATIENT-PHYSICIAN DISCORDANCE IN RA AND PSA PATIENTS

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Background: Patient global Assessment (PGA) of disease activity is considered a key patient reported outcome in Rheumatoid Arthritis (RA) and Psoriatic Arthritis (PsA), both being included in combined indices of disease activity. However, patients and physicians frequently disagree in their assessment.

Objectives: This study aimed at comparing the degree of this discrepancy and its determinants in RA and PsA.

Methods: Cross sectional study including 100 patients with RA (ACR/EULAR 2010 criteria) and 100 patients with PsA with predominant peripheral joint involvement (CASPAR criteria), aged ≥ 18 years, randomly selected from the electronic registry Reuma.pt. Data were collected from the most recent rheumatology visit during the last year: sociodemographic data, disease duration (years), tender and swollen joint counts 0-28 (TJC and SJC), disease activity (DAS28 3V-PCR), erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), patient's pain assessment, PGA and physician global assessment (PhGA). The discrepancy between patients and physicians (Δ PPhGA) was defined as PGA minus PhGA, and a difference > 120mm was taken as "discordance". Categorical variables are presented as proportions and continuous variables as mean ($\pm$ SD). Patient and clinical characteristics were compared between patients with RA and PsA using t-test and χ^2 test, as adequate. Variables with $p<0.05$ or clinically relevant were included in multivariable logistic regression analysis to identify correlates for Δ PPhGA in the whole sample. A $p<0.05$ was considered statistically significant.

Results: Compared to PsA, patients with RA were more often female (90% Vs 49%, $p<0.05$), older (66.7 $\pm$ 10.7 Vs 58.3 $\pm$ 12.2 years, $p<0.05$) and had a shorter disease duration (18.2 $\pm$ 9.8 Vs 19.9 $\pm$ 9.7 years, $p=0.202$). Regarding disease activity, the RA and PsA groups were comparable: DAS28 3V-PCR (2.3 $\pm$ 0.9 Vs 2.4 $\pm$ 1.0, $p=0.34$). Patients with RA had a higher mean Δ PPhGA (30.4 $\pm$ 30.6 Vs 25.4 $\pm$ 27.5, $p<0.05$), and were more frequently discordant to the physician (69% Vs 51%, $p<0.05$). In univariable analysis, having RA, higher patient's pain assessment and higher ESR were associated to patient-physician discordance. In multivariable analysis, only patient's pain assessment (OR 1.04 [95% CI 1.03-1.06], $p=0.00$) and TJC (OR 0.82 [95% CI 0.68-0.97], $p=0.02$) remained as predictors of discordance.

Conclusion: Despite comparable disease activity scores in RA and PsA patients, RA patients tend to have a worst self-perception of their disease activity compared to their physician's. Patient's pain assessment and TJC were the only predictors of patient-physician discordance, irrespective of the disease.

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AB0750 CLINICAL CHARACTERISTICS AND TREATMENT PATTERNS OF PATIENTS WITH PSORIATIC ARTHRITIS WHO WERE PRESCRIBED BIOLOGICS: DATA FROM THE COLUMBUS REPOSITORY

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Background: Real-world data from electronic health records (EHR) allow examination of treatment patterns and clinical practice behaviors for psoriatic arthritis (PsA).

Objectives: To describe physician and patient characteristics, and treatment patterns of patients with PsA who initiated secukinumab and other biologics using data from the Columbus Repository.

Methods: EHR data from adult patients with PsA who were prescribed a new biologic therapy between January 2018 and March 2019 (index date) were included from the Columbus Repository, which collects clinical records from a network of US rheumatology providers. Demographics, disease characteristics, and treatment patterns, as well as physicians' characteristics, were reported for patients who were prescribed secukinumab vs other biologics (abatacept, adalimumab, etanercept, certolizumab pegol, golimumab, infliximab, infliximab-dyyb, infliximab-abda, ustekinumab, and ixekizumab). Treatment groups were mutually exclusive and only the most recently prescribed biologic was represented. Categorical variables were summarized using frequency counts and percentages and continuous variables were presented using means and standard deviations.

Results: As of March 2019, 234 patients initiated secukinumab and 806 initiated other biologics for PsA treatment; 62 physicians prescribed biologics for PsA. Overall, 73% of physicians' offices had a single provider contributing patients to the analysis, and 76% of physicians were located in the South US region. Secukinumab initiators were younger (55.2 vs 57.3 years), more likely to be male (44% vs 31%), and had higher BMI (34.0 vs 31.9 kg/m²) vs other biologic initiators. Almost all disease activity measures evaluated had a large proportion (> 80%) of missing data; among those with nonmissing data, secukinumab initiators had numerically higher mean (SD) RAPID3 score vs other biologic initiators (12.6 [6.5] vs 11.6 [7.1]). Overall, 70% of secukinumab initiators and 48% of other biologic initiators were biologic experienced (Figure 1). Comorbidities were similar between groups (Figure 2). The most common reasons for discontinuation of prior biologic were the biologic was no longer required and lack of efficacy (Table 1).

Figure 1. Prior Biologic Use Among Patients Initiating Secukinumab, TNFi, or Non-TNFi Biologics

		Pre-Index Biologic Medications, n (%) ^a			
		None	Secukinumab	TNFi	Non-TNFi
Index Biologic Medications	Secukinumab (n = 234)	70 (30)	0	139 (59)	43 (18)
	TNFi ^b (n = 497)	287 (58)	39 (8)	155 (31)	51 (10)
	Non-TNFi ^c (n = 309)	134 (43)	55 (18)	115 (37)	44 (14)

^a Distribution of patients among pre-index medication categories was not mutually exclusive.

^b Index TNFis include adalimumab (n = 190), etanercept (n = 121), certolizumab pegol (n = 89), golimumab (n = 66), infliximab (n = 25), infliximab-dyyb (n = 5), and infliximab-abda (n = 1).

^c Index non-TNFis include ustekinumab (n = 123), abatacept (n = 102), and ixekizumab (n = 84).