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SAT0413 DACTYLITIS IS ASSOCIATED WITH DISEASE SEVERITY AND ULTRASOUND DEFINED EROSIVE DAMAGE IN VERY EARLY, DMARD NAÏVE PSORIATIC ARTHRITIS FREE

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Abstract

Background: Dactylitis is a hallmark feature of Psoriatic arthritis (PsA) and Spondyloarthritis (SpA) defined as a uniform swelling of a digit ("sausage digit"). Dactylitis is associated with radiographic damage in chronic PsA. However, there are a paucity of data on the significance of dactylitis and its potential impact in disease burden in early PsA.

Objectives: To characterize a very early DMARD naïve PsA cohort based on clinical presence or absence of dactylitis at disease onset.

Methods: PsA subjects fulfilling the CASPAR classification criteria, were recruited into a prospective observational cohort, the Leeds Spondyloarthropathy Register for Research and Observation (SpARRO) after providing informed written consent. Clinical data including tender (TJC) and swollen joint counts (SJC) were independently assessed. Dactylitis was recorded per digit (finger or toe) as tender (hot) or non-tender (cold). Differences in baseline characteristics were evaluated using percentages to describe categorical variables and means and standard deviations for continuous variables, p value of the mean/proportion difference was calculated. Ultrasound (US) examination was conducted by trained ultra-sonographers blinded to clinical details. Bone erosions were defined on US if intra-articular discontinuity was present in two perpendicular planes at any of 46 joints: wrists, MCP1-5, PIP2-5, DIP2-5, MTP1-5, knees, ankles, subtalar, talonavicular.

Results: A total of 177 PsA patients were recruited. Dactylitis was seen in nearly half the cohort [n=83 (47%)]. Patients with dactylitis had significantly more early morning stiffness, higher TJC and SJC, compared with non-dactylitis (Table 1). A total of 211 digits with dactylitis were recorded in 83 patients. Dactylitis of multiple digits was seen in 47/83 (57%) patients whilst a single dactylitic digit occurred in 36/83 (43%). Foot involvement was more prevalent (141/211, 67%) than hands (70/211, 33%). "Hot" or tender dactylitis was more frequently detected (153/211, 72.5%) than "cold" or non-tender dactylitis (58/211, 27.5%). The most prevalent sites for hot dactylitis were toes 2-4th and fingers 2-3rd.

US defined erosions were significantly more prevalent in the dactylitis group: 34 erosions in 21/71 patients (29.5%) versus 16 erosions in 12/83 (14.4%) patients in non-dactylitis. Sites prone to erosive damage in both groups were the wrists, MCP1,2 and MTP4,5. The right MCP2 (n=6) and MTP5 (n=6) were most commonly eroded in the dactylitis group, but erosions corresponding at the dactylitic digit level were overall low.

Conclusion: This study identifies a more severe phenotype in very early DMARD naïve PsA presenting with dactylitis with higher prevalence of ultrasound erosions. Longitudinal follow up will determine whether dactylitis represents a poor prognostic factor in very early PsA, which may be a useful discriminator for risk stratification in future PsA management recommendations.

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Table 1.

Variable	No Dactylitis (n=94)	Dactylitis (n=83)	P value
Age, mean (SD) years	44.4 (12.8)	43.7 (13.2)	>0.05
Male	38 (40.4%)	42 (50.6%)	>0.05
Disease duration, median (IQR) weeks	4.7 (0.0-11.4)	5.2 (1-22.4)	>0.05
Early Morning stiffness, mean (SD) mins	82.8 (145.4)	170.5 (230.2)	0.0025*
TJC (78), mean (SD)	8.3 (10.9)	13.7 (14.0)	0.004*
SJC (76), mean (SD)	2.2 (3.2)	8.4 (8.0)	<0.001*
Psoriasis	94/94 (100.0%)	76/83 (91.6%)	0.004*
PASI, mean (SD)	3.6 (4.0)	3.0 (4.1)	>0.05
Nail Dystrophy	51/94 (54.3%)	41/83 (49.4%)	>0.05
mNAPSI, mean (SD)	4.9 (7.1)	7.5 (14.0)	>0.05
MASES, mean (SD)	1.6 (2.9)	1.5 (2.4)	>0.05
BMI, mean (SD)	29.1 (6.4)	28.6 (5.6)	>0.05
Smoker	19.0 (20.2%)	9.0 (10.8%)	>0.05
Elevated CRP (>10 mg/L)	24 (25.5%)	36 (43.4%)	>0.05
PsAQoL, mean (SD)	6.2 (6.6)	6.2 (6.1)	>0.05
HAQ, mean (SD)	0.79 (0.71)	0.84 (0.65)	>0.05
US Erosions (n=154)	12/83 (14.4%)	21/71 (29.5%)	0.023*