University, Rheumatology Unit, Department of Clinical and Molecular Sciences, "Carlo Urbani" Hospital, Jesi, Italy; ²University of Palermo, Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties, Rheumatology section, "P. Giaccone" Hospital, Palermo, Italy

Background: Enthesitis is one of the hallmark of psoriatic arthritis (PsA). Ultrasound (US) accurately detects morphostructural abnormalities indicative of enthesal inflammation and structural damage. Interestingly, in a recent study, US-detected enthesal pathology appeared to be a potential marker of disease severity, being associated with higher radiographic score of structural damage at peripheral joint level. (1) However, a sub-analysis of the impact of each elementary finding of US enthesitis was not performed. Moreover, some US enthesal abnormalities (hypoechoogenicity, thickening and calcification/enthesophyte) have been described as frequent findings in healthy subjects and patients with dysmetabolic conditions, undermining their specificity. (2) Thus, we hypothesized that their role as a sonographic biomarker of joint disease severity could be questioned.

Objectives: The main aim of the present study was to explore the association between the US elementary findings of enthesitis defined by OMERACT [i.e. hypoechoogenicity, thickening, Doppler signal, calcification/enthesophyte and bone erosion at enthesitis] (3) and the presence of US-detected joint bone erosions in patients with PsA.

Methods: Consecutive patients with PsA (CASPAR criteria) were included in this cross-sectional single-centre study. The scanning protocol included bilateral assessment of the main entheses of the lower limbs [plantar fascia, quadriceps, patellar (proximal and distal) and Achilles tendons]. The presence of US joint bone erosions was investigated in the following areas: 2nd and 5th metacarpophalangeal (MCP) joints, ulnar head and 5th metatarsophalangeal (MTP) joint, bilaterally, as well as the most inflamed joint at the physical examination. The US examination was carried out with a 6-18 MHz probe. Univariate and multivariate logistic analysis were performed to identify predictors of US joint bone erosions.

Results: A total of 74 PsA patients were enrolled. The mean disease duration was 7.9±8.0 years. Joint bone erosions were found in 36/75 patients (48.0%), and in 71/600 joints (11.8%), most frequently in the 5th MTP joint (in 26/75 patients, 34.7%). The univariate analysis showed that enthesal bone erosions [odds ratio (OR) 27.1, 95% confidence interval (CI) 3.3-220.2, p value <0.01] and Doppler signal (OR 3.5, 95% CI 1.3 - 9.4, p value 0.01) were associated with joint bone erosions. Only enthesal bone erosions remained significantly associated with joint bone erosions in the multivariate analysis (Table 1).

Table 1. Multivariate regression analysis: predictive value of the enthesal US findings for the presence of joint bone erosions.

	OR (95% CI)	P value
Hypoechoogenicity	0.5 (0.1-3.4)	0.45
Thickening	2.2 (0.6-8.3)	0.27
Doppler signal	3.2 (0.9-10.8)	0.06
Calcification/enthesophyte	1.1 (0.1-11.2)	0.99
Enthesal bone erosion	24.2 (2.7-216.2)	<0.01

Conclusion: Enthesal bone erosion and, to a lesser extent, Doppler signal, were the only enthesal abnormalities correlated with the presence of US-detected joint bone erosions, representing potential sonographic biomarkers of disease severity in PsA.

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POS1067

BASAL VITAMIN D LEVELS AND DISEASE ACTIVITY AND RESPONSE IN PORTUGUESE PATIENTS WITH PSORIATIC ARTHRITIS UNDER bDMARD: DOES IT MAKE A DIFFERENCE?

F. Oliveira Pinheiro¹, B. M. Fernandes¹, S. Garcia¹, M. Rato¹, D. Fonseca², D. Santos Oliveira^{1,3}, A. Martins¹, F. R. Martins⁴, P. Madureira¹, M. Bernardes^{1,5},

L. Costa¹. ¹Centro Hospitalar Universitário de São João, Rheumatology Department, Porto, Portugal; ²Centro Hospitalar Vila Nova de Gaia/Espinho, Rheumatology Department, Vila Nova de Gaia, Portugal; ³Faculty of Medicine, University of Porto, Center for Health Technology and Services Research (CINTESIS), Porto, Portugal; ⁴Centro Hospitalar Universitário do Algarve, Rheumatology Department, Faro, Portugal; ⁵Faculty of Medicine, University of Porto, Medicine Department, Porto, Portugal

Background: There is growing evidence that vitamin D [25(OH)D] plays an important role in maintaining skeletal health and modulating the immune system. Epidemiological data indicate that vitamin D deficiency is common in immune-mediated rheumatic diseases, especially in rheumatoid arthritis, but there is little data regarding its association with disease activity and response to therapy in patients with psoriatic arthritis (PsA) under bDMARD therapy.

Objectives: We aimed to assess whether 25(OH)D basal levels correlate with disease activity and clinical response to the first bDMARD, at 6 and 12 months of therapy, in a monocentric cohort of patients with PsA.

Methods: This retrospective study was carried out on PsA patients from a Rheumatology department of a tertiary hospital, fulfilling CASPAR criteria and registered in our national database (Reuma.pt), who started the first bDMARD since 2008. Demographic, clinical and laboratory criteria were evaluated at 0, 6 and 12 months of biologic therapy. Disease activity was assessed using CDAI, SDAI, DAS28(4V), BASDAI, ASDAS, DAPSA and the response was measured using the EULAR, BASDAI50, ASDAS, ASAS, ACR and PsARC responses. Correlations were made between absolute serum levels of 25(OH)D and continuous variables, as well as associations between different vitamin D cutoffs and disease activity measures and response criteria. Multiple linear and logistic regression analyses were performed to determine whether vitamin D is a predictor of disease activity and therapeutic response.

Results: We included 81 patients, 41 (50.6%) females; with a mean age of 48.0±11.7 years, a mean disease duration of 9.5±7.4 years and a mean body mass index of 28.4±5.2kg/m². Thirteen (16.0%) were smokers. The mean 25(OH)D basal level was 25.5±13.2ng/mL, 21 (25.9%) had 25(OH)D basal levels ≥30ng/mL and 31 (38.3%) ≤20ng/mL. Sixty-two patients (76.5%) were under csDMARD therapy. Golimumab (29, 35.8%), etanercept (28, 34.6%) and adalimumab (10, 12.3%) were the most frequently prescribed bDMARDs. There were only very weak, albeit positive, correlations between 25(OH)D levels and measures of disease activity. The BASDAI50 response at 6 months was associated with higher basal 25(OH)D levels (29.5±14.5 vs 21.5±10.2ng/mL, p = 0.013); the ASAS20 (33.9±15.9 vs 24.2±12.8ng/mL; p = 0.023), ASAS40 (31.9±14.6 vs 25.0±13.8ng/mL; p = 0.023) and ASAS70 (47.0±4.2 vs 26.6±14.2; p = 0.027) responses at 12 months were associated with higher basal levels of 25(OH)D; basal 25(OH)D levels were ≥ 30ng/mL in a significantly higher proportion of patients who achieved CDAI (38.9% vs 10.5%; p = 0.027) and SDAI (38.9% vs 7.7%; p = 0.008) remission and ASDAS disease inactive (29.4% vs 7.3%; p = 0.040) at 1 year. In the regression models, basal levels of 25(OH)D were found to be predictors of good EULAR responders (OR 1.315, 1.017-1.213 95% CI; p = 0.037) at 6 months. Basal levels of 25(OH)D were not significantly different in patients who discontinued bDMARD or no significant correlations or associations were identified regarding more specific PsA activity measures, such as DAPSA and PsARC, nor were they predictive of these responses.

Conclusion: We can conclude that there is a global trend for an association between higher levels of vitamin D and lower measures of disease activity and better therapeutic responses to the first biologic. It was possible to find statistically significant associations with some disease activity measures and response criteria that, although primarily designed for other rheumatic diseases, are often used in PsA.

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POS1068

CARDIAC BIOMARKERS ARE ASSOCIATED WITH THE DEVELOPMENT OF CARDIOVASCULAR EVENTS IN PATIENTS WITH PSORIATIC ARTHRITIS AND PSORIASIS

K. Colaco^{1,2,3}, K. A. Lee⁴, S. Akhtari⁵, R. Winer⁶, P. Welsh⁷, N. Sattar⁷, I. McInnes⁸, V. Chandran^{9,10}, P. Harvey^{5,9}, R. Cook⁴, D. D. Gladman^{9,10}, V. Piguat^{1,9}, L. Eder^{1,9}.

¹Women's College Hospital, Women's College Research Institute, Toronto, Canada; ²University Health Network, Krembil Research Institute, Toronto, Canada; ³University of Toronto, Institute of Medical Science, Toronto, Canada; ⁴University of Waterloo, Statistics and Actuarial Science, Waterloo, Canada; ⁵Women's College Hospital, Cardiology, Toronto, Canada; ⁶Rambam Health Care Campus, Neurology, Haifa, Israel; ⁷University of Glasgow, Institute of Cardiovascular & Medical Sciences, Glasgow, United Kingdom; ⁸University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom; ⁹University of Toronto, Medicine, Toronto, Canada; ¹⁰University Health Network, Centre for Prognosis Studies in the Rheumatic Diseases, Toronto, Canada

Background: N-terminal pro-brain-type natriuretic peptide (NT-proBNP) and troponin I (TnI) are established cardiac biomarkers that predict cardiovascular events (CVEs) in the general population. While patients with psoriatic arthritis and psoriasis, collectively termed psoriatic disease (PsD), have an increased risk of developing CVEs, the use of these cardiac biomarkers to predict CV risk has not been investigated in this population.