Background: Osteoporosis is one of the major comorbidities in patients with psoriasis and psoriatic arthritis (PsA). It has been reported that PsA induces fragility bone structure\(^1\) and high risk of osteoporosis\(^2\). However, there is no report about relationship between psoriatic arthritis and osteoporosis in Japanese patients and its mechanism has not been elucidated.

Objectives: The objective of this study is to investigate influence of PsA on bone mineral density (BMD) and its mechanism including analysis between axial and peripheral PsA in Japanese patients.

Methods: This study was retrospective study. We examined 58 cases of PsA and 29 cases of RA that underwent DXA tests at our facility from January 2017 to July 2019 (Table 1). The axial PsA was classified as axial SpA using the ASAS classification criteria. First, we investigated influence of PsA containing both axial (n=30,19 males, 11 females, mean age: 50.6 years) and peripheral (n=28, 19 males, 9 females, mean age: 58.0 years) subtypes on BMD measured by dual-energy X-ray absorptiometry. Second, we measured serum bone metabolism markers (P1NP: type I procollagen-N-propeptide, TRACP-5b: tartrate-resistant acid phosphatase 5b) and bone remodeling effector molecules (Dkk1: Dickkopf1, sclerostin, 25(OH)D: 25-hydroxyvitamin D) to elucidate differences in BMD between axial and peripheral PsA. Furthermore, rheumatoid arthritis (RA) (n=29, 20 males, 9 females, mean age: 55.6 years) whose disease activity was also evaluated for comparison with axial and peripheral PsA.

Osteoporosis and Osteopenia were defined as T-score ≤ -2.5 or %YAM ≤ 70%, -1.0<T-score< -2.5 or 80-%YAM > 70% respectively.

Results: 58 patients with PsA indicated low T-score, Z-score and %YAM in both lumbar spine and proximal femur (Table 1). Axial PsA and peripheral PsA showed osteoporosis in 16.7% and 35.7%, and osteopenia in 20.0% and 32.1%, respectively, despite the fact that there were many middle-aged men. Comparison between axial and peripheral PsA, axial PsA showed higher BMD than peripheral PsA. In bone remodeling makers, Dkk1, and sclerostin were lower in axial PsA as compared to peripheral PsA. In bone remodeling influencer molecules (P1NP, TRACP-5b), bone remodeling marker, in axial PsA was lower than that in peripheral PsA. In bone remodeling markers, P1NP in both PsA were almost same, but TRACP-5b, bone resorption marker, in axial PsA was lower than that in peripheral PsA.

Conclusion: Peripheral PsA indicated more severe bone loss than axial PsA in our study. There were some differences in bone remodeling markers between bone remodeling effector molecules between axial and peripheral PsA, but the relationships between BMD and these parameters were not confirmed. Further studies are needed to elucidate bone loss mechanism in these PsA.

References:

Disclosure of Interests: Shigeyoshi Tsuji Grant/research support from: Eli Lilly, Speakers bureau: AbbVie, Asahi Kasei, Chugai, Daiichi Sankyo, Eli Lilly, Eisai, Mitsubishi Tanabe, Celgene, and Novartis Pharma K.K.; Tetsuya Tomita Consultant of: Eli Lilly and Company, Mari Higashiyama: None declared, Takaoki Noguchi: None declared, Toshikazu Mouri: None declared, Jun Hashimoto: Speakers bureau: AbbVie, Asahi Kasei, Chugai, Daiichi Sankyo, Eli Lilly, Eisai, Mitsubishi Tanabe, Celgene, and Novartis Pharma K.K.

DOI: 10.1136/annrheumdis-2020-eular.2826
Conclusion: Reflecting the complexity of PsA, different degrees of improvement were observed across all treat-to-target outcomes with greater improvements in patients that met ACR50 response regardless of skin resolution. These findings at week 24 need to be confirmed with a longer duration of treatment.

Disclosure of Interests: Josef S. Smolen Grant/research support from: AbbVie, AstraZeneca, Celgene, Celltrion, Chuagui, Eli Lilly, Gilead, ILTOO, Janssen, Novartis-Sandoz, Pfizer Inc, Samsung, Sanofi, Consultant of: Abb-Vie, AstraZeneca, Celgene, Celltrion, Chuagui, Eli Lilly, Gilead, ILTOO, Janssen, Novartis-Sandoz, Pfizer Inc, Samsung, Sanofi, Frank Behrens Grant/ research support from: Pfizer, Janssen, Chuagui, Celgene, Lilly and Roche. Consultant of: Pfizer, Abbvie, Sanofi, Lilly, Novartis, Genzyme, Boehringer, Janssen, MSD, Celgene, Roche and Chuagui, Soji Liu League Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Christophe Sapin Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Employee of: Eli Lilly and Company. Inmaculada De La Torre Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Gabriella Meszaros Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Georg Schett Speakers bureau: Abbvie, BMS, Celgene, Janssen, Eli Lilly, Novartis, Roche and UCB, Laure Gossec Grant/research support from: Lilly, Mylan, Pfizer, Sandoz, Consultant of: Abbvie, Amgen, Biogen, Celgene, Janssen, Lilly, Novartis, Pfizer, Sandoz, Sanofi-Aventis, UCB, Andrew Ostor Consultant of: MSD, Pfizer, Lilly, Abbvie, No section, Roche, Consultant of: Lilly, Sanofi, Roche, BMS, Speakers bureau: MSD, Pfizer, Lilly, Abbvie, Novartis, Roche, Gilead and BMS, Speakers bureau: MSD, Pfizer, Lilly, Abbvie, Novartis, Roche, Gilead and BMS, Bernard Combe Grant/ research support from: Novartis, Pfizer, Roche-Chugai, Consultant of: Abb-Vie; Gilead Sciences, Inc.; Janssen; Eli Lilly and Company; Pfizer; Roche-Chugai; Sanofi, Speakers bureau: Bristol-Myers Squibb; Gilead Sciences, Inc.; Eli Lilly and Company; Merck Sharp & Dohme; Pfizer; Roche-Chugai; UCB, Fashion van der Loo Consultant of: Celgene Corporation, Eli Lilly, Galapagos, Janssen, Novartis, Pfizer, and UCB, Speakers bureau: Abbvie, Celgene Corporation, Eli Lilly, Galapagos, Janssen, Novartis, Pfizer, and UCB

AB0842

DISCOVERY OF ARTHRITIS IN PSORIASIS FOR EARLY RHEUMATOLOGICAL REFERRAL (DAPPER): A CROSS-SECTIONAL STUDY

T. Van Hal1, M. Mulder1, M. Wenink1, M. Pasch2, J. Van den Reek2, E. De Jong3, Sint Maartenskliniek, Rheumatology, Nijmegen, Netherlands; 2Radboudumc, Dermatology, Nijmegen, Netherlands; 3Universidade Federal do Rio Grande do Sul, Medicine, Porto Alegre, Brazil

Background: In three patients with psoriasis (Pso) will develop psoriatic arthritis (PsA) (1). When untreated, this can lead to disability and irreversible joint damage (2). Current screening methods are mostly based on questionnaires. These lack specificity and sensitivity (3,4). Thus, a significant portion of PsA patients remains undetected.

Objectives: Our main objective is to ascertain the prevalence of PsA in a cohort of Pso patient, treated at a dermatology outpatient clinic. Secondary, we wish to make a referral tool for dermatologist to detect patients suspected of PsA.

Methods: A sample of 300 patients, stratified for current skin therapy (topical, systemic non-biologic, biologic), will be selected by Abbbvie from a rheumatology resident for PsA signs and symptoms. When PsA is suspected, patients are referred to a rheumatologist for confirmation. We gather information about demography, treatment (past and current) and comorbidity. On top of that, we gather data on disease specific (age of onset, disease duration, severity). We store biomatereials and DNA. Eventually, all these data will be used to form a more specific prediction model which can be used at the dermatology department for more efficient referral.

Results: We will present preliminary data of the first 100 patients. In this cohort, we found 14 patients with known PsA. 10 patients were suspected of (previously undiagnosed) PsA, and were referred to a rheumatology clinic. Three cases were confirmed, and 4 are still under analysis. This makes the prevalence of PsA in Pso 17%. Of these three new cases, one was treated with topical therapy only, one was treated with a biologic, and one received targeted therapy. In the patients with PsA, we found a higher amount of men. On top of that, we found a trend towards more intensive therapy. This may be due to indication bias, were the presence of arthritis may lead to a more aggressive treatment. Interestingly, 2 of the 3 previously undiagnosed PsA patients were treated with a biological for their skin symptoms.

Conclusion: Preliminary data of the DAPPER study reveal that the prevalence of confirmed PsA in Pso patients is 17%. If all suspected PsA are confirmed, this rises to 21%. Even under systemic biologic treatment, arthritis can still be active.

References:

Disclosure of Interests: Tamara van Hal Speakers bureau: Lilly Eli, Michelle Mulder: None declared, Mark Wenink: None declared, Marcel Pasch: None declared, Juul Van den Reek Speakers bureau: Abbvie, Eli Lilly, Elke De Jong Grant/research support from: Abbvie, Janssen Pharmaceuticals, Consultant of: Abbvie, Janssen Pharmaceuticals, Novartis, Eli Lilly and Company, Celgene, and Leo Pharma., Speakers bureau: Abbvie, Janssen Pharmaceuticals, Novartis, Eli Lilly and Company, Celgene, and Leo Pharma.

DOI: 10.1136/annrheumdis-2020-eular.4746

AB0843

PSORIATIC ARTHRITIS PATIENTS ACHIEVING DAPSA REMISSION/LOW DISEASE ACTIVITY HAVE BETTER LONG-TERM FUNCTIONAL OUTCOMES

L. Vergas Cruz1, J. Boechat Farani2, J. Rabelo Costa3, F. Menegat4, J. Andrade Águas5, B. Ruschel6, A. A. Gasparin2, C. Brenol2, C. Kohem2, P. Palomino5 on behalf of Rheumatology Department. Hospital de Clínicas de Porto Alegre, Brazil Universidade Federal do Rio Grande do Sul, Brazil; 1Hospital de Clínicas de Porto Alegre, Rheumatology, Porto Alegre, Brazil; 2Hospital de Clínicas de Porto Alegre, Rheumatology, Porto Alegre, Brazil; 3Universidade Federal do Rio Grande do Sul, Medicine, Porto Alegre, Brazil; 4Hospital de Clínicas de Porto Alegre, Pesquisa Clínica, Porto Alegre, Brazil; 5Universidade Federal do Rio Grande do Sul, Medicine, Porto Alegre, Brazil; 6Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

Background: Patients with psoriatic arthritis (PsA) experience substantial functional impairment, which impacts on health-related quality of life.1 Evidence from randomized clinical trials (RCTs) suggests better patient-reported functional outcomes when lower disease activity is achieved.2-4

Objectives: To evaluate the impact of achieving DAPSA remission (REM) or low disease activity (LDA) on long term function measured by HAQ-DI. To verify predictors of achieving a minimum clinically important difference (MCID) in HAQ-DI (≤ -0.35).

Methods: This is a longitudinal analysis of a real-life retrospective cohort. Inclusion criteria were adult patients fulfilling CASPAR criteria for PsA with at least 4 years of follow-up in the PsA Clinic. Demographic and clinical data were extracted from electronic medical records. Comparison of HAQ-DI variation between patients with DAPSA REM/LDA and those with moderate/high disease activity was performed using generalized estimating equation (GEE), adjusted by Bonferroni test. Correlation between HAQ-DI and DAPSA was analyzed by Spearman correlation method. A multivariate hierarchical regression model was applied in order to evaluate predictors of achieving a MCID in HAQ-DI scores.

Results: Seventy-three patients were included in the analysis, of which 58.9% were female, with a median (25/75th) of 8 (3-15) years since PsA diagnosis and a mean follow up time of 6.2±1.2 years. In total, 37% of patients (N=27) presented a MCID in HAQ-DI during the follow-up. Function measured by HAQ-DI was determined by PsA disease activity measured by DAPSA (interaction test: p<0.0001) (Figure 1). A moderate and statistically significant correlation between DAPSA and ΔHAQ-DI was observed (r 2 =0.60; p<0.0001) (Figure 2), demonstrating that a decrease in PsA disease activity was associated to improvement in function. Only patients in DAPSA REM demonstrated a constant declining in HAQ-DI scores during the 6 years of follow-up (Figure 1). While ethnicity and older age at baseline were predictors for not achieving MCID in HAQ-DI (RR 0.33 95% CI 0.16-0.67, p=0.002 and RR 0.96 95% CI 0.93-0.98, p<0.0001, respectively), while higher scores of HAQ-DI at baseline were predictors of achieving a MCID (RR 1.71 95% CI 1.12-2.60, p=0.013).

References: