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OP0055 MINIMAL RADIOGRAPHIC DAMAGE OF SACROILIAC JOINTS DETECTED IN PSORIATIC ARTHRITIS PATIENTS

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Background: Psoriatic arthritis (PsA) is an inflammatory joint disease that is traditionally included in the Spondyloarthritis (SpA) spectrum. Prevalence and impact of axial involvement in PsA remains understudied but increasingly affects treatment decisions.

Objectives: The first step, in this multi-purpose radiographic study, is to report on baseline radiographic damage of the sacroiliac joints (SIJ) in PsA patients from a prospective multicentre cohort study in private and academic rheumatology practices.

Methods: Data from the Belgian Epidemiological Psoriatic Arthritis Study (BEPAS), a prospective multicentre cohort involving 17 Belgian rheumatology practices. Recruitment was from December 2012 until July 2014. Patients were included in the study when the local rheumatologist could diagnose an existing or new PsA and when patients fulfilled the Classification criteria for Psoriatic Arthritis (CASPAR). Radiographs of the SIJ were obtained at baseline and after 2 years. Two calibrated readers assessed radiographic damage by grading the SIJ according to the modified New York (mNY) criteria. When assessing the images, readers were blinded for clinical data and information from other obtained images (radiographs of the hands, feet and spine). Individual scores as well as consensus scores are described.

Results: In total 461 patients where included in BEPAS. Mean age was 52.79±12.29 years and 43.0% (n=198) were female; average disease duration was 8.5 ± 9.3 yrs and approximately 34% of the patients report inflammatory axial pain. From 338 patients SIJ radiographs were obtained. At baseline, the vast majority of patients did not fulfil the mNY criteria (n=325, 96.2%), according to both readers. In 8 cases (2.4%) there was concordance on fulfilment of the mNY criteria. Discordant cases (n=5, 1.4%) were equally distributed. Agreement between the 2 readers was good with 98.5% overall agreement and kappa=0.75. Therefore, with a more sensitive approach (any of the 2 readers scores mNY positive) we see slight differences; 13 patients (3.8%) fulfil the mNY criteria. Table 1 shows radiographic damage by individual readers

Table. Baseline data on radiographic damage of the sacroiliac joints in Belgian patients with newly diagnosed or existing PsA included in the BEPAS.

N=338		Right sacroiliac joint		Left sacroiliac joint	
Grades	Type of lesion	Reader 1	Reader 2	Reader 1	Reader 2
0	No abnormalities	298 (88.2%)	301 (89.1%)	298 (88.2%)	296 (87.6%)
1	Indefinite abnormalities	32 (9.5%)	23 (6.8%)	27 (8.0%)	23 (6.8%)
2-3	Abnormalities	5 (1.5%)	12 (3.6%)	9 (2.7%)	19 (5.6%)
	Erosion	3 (0.9%)	11 (3.3%)	4 (1.2%)	18 (5.3%)
	Sclerosis	4 (1.2%)	12 (3.6%)	5 (1.5%)	13 (3.9%)
	Joint space alteration (narrowing or widening)	1 (0.3%)	1 (0.3%)	4 (1.2%)	2 (0.6%)
	Partial ankylosis	2 (0.6%)	3 (0.9%)	5 (1.5%)	8 (2.4%)
4	Total ankylosis	3 (0.9%)	2 (0.6%)	4 (1.2%)	-

In 128 patients (37.9%) a follow-up x-ray after 2 years was available. In 124 patients (96.9%) there was reader agreement on mNY negative status. There was disagreement between readers on a positive mNY in 2 patients (equally distributed) and agreement on 2 patients (1.6%). There were no patients with consensus between readers on the change in mNY over 2 years, but 1 reader reported 1 patient becoming mNY positive after 2 years.

Conclusion: Despite the patient self-identified presence of axial disease in up to 34% in this cohort of PsA patients, there was minimal radiographic damage on SIJ, suggesting that SIJ disease is not a major manifestation of PsA.

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OP0056 PERSISTENCE OF BIOLOGIC TREATMENT IN PSORIATIC ARTHRITIS: A POPULATION-BASED STUDY IN SWEDEN

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Background: Psoriatic arthritis (PsA) is a chronic, heterogeneous, immune-mediated seronegative arthritis characterized by joint inflammation in people with skin psoriasis (PsO). In recent years several effective biologic treatments such as tumour necrosis factor inhibitors (TNFi), interleukin (IL) 12 and 23 inhibitors (IL-12/23i), and IL 17 inhibitors (IL-17i) have been introduced for PsA. Discontinuation (non-persistence) of therapy is usually a consequence of lack of effect and intolerability.

Objectives: Compare time to discontinuation of TNFi (adalimumab, ADA), IL-17i (secukinumab, SEC), and IL-12/23i (ustekinumab, UST) treatment exposures and the association with previous biologic treatment experience.

Methods: Population-based national health data from the Swedish Patient Registry, Prescribed Drug Registry and Cause of Death Registry were linked at the patient level and used to identify treatment exposures in PsA patients initiating ADA, SEC, or UST between January 2008 and September 2018. Discontinuation was defined as a treatment switch to any other PsA-indicated biologic, or failure to re-dispense treatment within a grace period following end of drug supplied. The grace period, defined as the number of days between end of drug supply and re-dispensation during which a patient is considered to be on active treatment, was set dynamically to the number of days of drug supplied in the primary analysis. As a sensitivity analysis, a fixed 90-day grace period was used. Supply was calculated as total milligrams dispensed divided by maintenance dose posology, where the following assumptions were made due to the limitations of the administrative data used: UST patients' weight corresponded to the amount of drug dispensed (both 45mg and 90mg dispensations last 84 days), SEC patients with prior TNFi experience consumed 300mg/28 days and all others consumed 150mg/28 days, and ADA patients consumed 40mg/14 days. Adjusted hazard ratios (HR) for time to discontinuation were calculated using a Cox proportional hazards model. Covariates for age, marital status, and previous biologic treatment experience were assessed at the initiation of treatment exposure, while comorbidity including skin PsO was assessed during the two years prior. Exposures without discontinuation events were censored at death or end of follow-up. The study was approved by the Stockholm Regional Ethical Review Board.

Results: 3,620 discontinuation events were observed in the main analysis across 4,649 treatment exposures (ADA: 3,255; SEC: 887; UST: 507) (Figure 1, unadjusted). 3,162 events were observed in the sensitivity analysis. Average age at treatment initiation was 50, 54% were female, 47% were biologic treatment naïve, and 39% had skin PsO. In the multivariate main analysis, UST exhibited lower discontinuation rates vs ADA (HR=0.56, 95% CI: 0.49-0.64) while there