Background: In patients with spondyloarthropathies (SpA), root joint diseases (RJD), i.e. hip or shoulder involvement, may be associated with a distinct disease phenotype compared to those with other affected joints. The ASAS-PerSpA study (PHERipheral involvement in PANDyarthritis) [1], offers a unique opportunity to study the phenotypes of patients with RJD in a global cohort.

Objectives: Primary objective was to compare the clinical characteristics of SpA patients with and without RJD. Secondary objectives were to compare the prevalence of RJD across the different SpA subtypes and the different regions of the world, compare the severity of axial disease as well as the disease burden in SpA patients with and without RJD.

Methods: This is a post-hoc analysis of the ASAS-PerSpA study, which included 4,465 patients with any subtype of SpA (axial SpA (axSpA), peripheral SpA (pSpA), psoriatic arthritis (PsA), inflammatory bowel disease associated SpA (IBD-SpA), reactive arthritis (ReA) and Juvenile SpA (JuxSpA)) according to the rheumatologist’s diagnosis. RJD was defined as a positive answer by the investigator to the following question: “Do you consider that the patient has ever suffered from RJD (e.g. hip, shoulder) related to SpA?” In case of a positive answer, a potential specific treatment (e.g. Total Articular Replacement) was investigated. The patient’s characteristics were compared between those with and without RJD involvement, using Chi-2 or Fisher exact test for the categorical variables and t-test for the continuous variables. Two separate multivariable step-wise binary logistic regression analyses were conducted to identify factors associated with the dependent variables “hip involvement” and “shoulder involvement”.

Results: RJD occurred in 1,503 patients (33.7%), with more prevalent hip (24.2%) than shoulder (13.2%) involvement. The prevalence of RJD as a group was the highest in JuxSpA (22.7%), followed by pSpA (44.3%) and axSpA (33.9%). The highest prevalence of RJD was found in the lowest in Europe and North America. Among patients with hip involvement, 6.0% had a history of hip replacement (highest in the Middle East and North Africa and Latin America); among patients with shoulder involvement, 0.8% had a history of shoulder replacement. Hip had a distinct pattern of associations compared to shoulder involvement (Figure 1). Hip involvement was significantly associated with the SpA main diagnosis (highest in pSpA, lowest in PsA), younger age at first SpA symptom, lower prevalence of family history of psoriasis, positive HLA-B27, occiput-to-wall distance <0, and treatment with cs-DMARDs and b-DMARDs. Shoulder involvement was associated with the SpA main diagnosis (highest in JuxSpA and pSpA, lowest in axSpA), older age at first SpA symptom, higher prevalence of enthesitis, dactylitis, tendon joint count, hip, occiput-to-wall distance >0, ESGRD score and treatment with cs-DMARDs.

Conclusion: Hip involvement was more prevalent than shoulder involvement in patients with SpA, and had a distinct phenotype resembling axial disease whereas shoulder involvement was mostly associated with features of peripheral disease. Hip and shoulder involvement should be analyzed separately in future studies rather than under the RJD entity.

Disclosures: None declared

References: