are not studied. Until now, it remains unclear whether synovitis detected on MRI and ultrasound of hip joint is a predictor of radiological progression of coxitis.
Objectives: To determine the factors influencing the progression of coxitis in axSpA.
Methods: 77 patients (mean age 28 ± 5.92 years) with a diagnosed with axSpA (ASAS criteria 2009), which were observed for at least 2 years. Among them, AS according to the modified New York criteria (1984) - 66 (86%) patients, and 11 (14%) were diagnosed with nr-axSpA. The median duration of the disease was 30 [3–60] months, BASDAI 4.5 [3.2; 5.9], BASFI 2.4 [0.9; 4.8]. All patients underwent clinical, X-ray, ultrasound and MRI examination of the hip joint during the entire observation period. For ultrasound, coxitis was considered an increase in the cervical-capsular distance (CCD) of more than 7mm. For MRI inflammatory changes were taken as osteitis of the acetabulum and / or femoral head and synovitis in STIR mode. The sum of stages of radiographic coxitis (ssrC) was used to assess HJ injury progression. During the study, a formula was developed to assess the progression rate of radiographic coxitis (R-rpC).
Results: Cluster analysis of the main parameters was performed to detect the relationship between the clinical manifestations of axSpA and radiological progression of coxitis (Figure 1). During the analysis, it was found that the most closely related group of clinical parameters, such as the presence of the HLA B 27 gene and the sex of patients, the rate of radiographic progression of coxitis and srsc (Euclidean distance < 20). The second group of related measures included the BASDAI and ASDAS-CRP disease activity indices, as well as their associated functional impairment (BASFI index) (Euclidean distance < 30). These two groups of signs are also related to each other — Euclidean distance < 30. It should be noted that laboratory indicators of inflammation (ESR and CRP), the age of patients, and especially the duration of the disease, turned out to be weakly related to each other (Euclidean distance > 100). It should also be noted that the relationship between laboratory indicators of inflammation and disease activity indices is relatively weak, as well as with structural damage in axSpA.

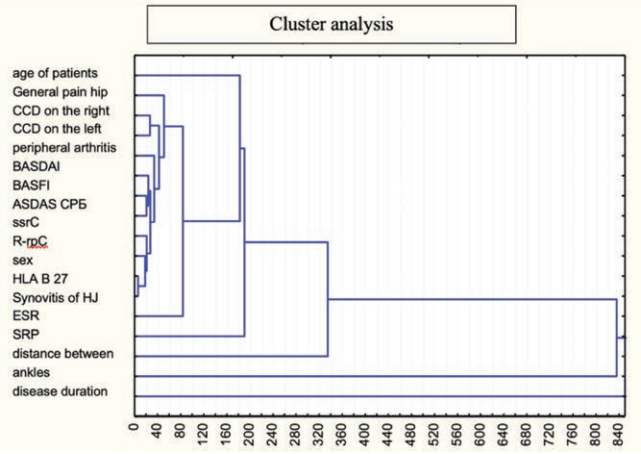

Figure 1.

Conclusion: Factors influencing the development and progression of coxitis in axSpA are a combination of such features as high clinical activity of the disease, the presence of peripheral arthritis, HLA B27 positivity and male sex.
Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2022-eular.2717

POS0982 ANTIBODIES TO TWO NOVEL PEPTIDES IN NEW ONSET AXIAL SPONDYLOARTHRITIS

P. Ruytinx[1], P. Vandormael2, E. Luyten[1], A. S. De Craemer[3], F. Van den Bosch[3], D. Elewaut[3], V. Somers[1]. *[1]Biomedical Research Institute, Hasselt University, Department of Immunology and Infection, Diepenbeek, Belgium; [1]Biomedical Research Institute, Hasselt University, Department of Immunology and Infection, Diepenbeek, Belgium; [3]Ghent University Hospital, Rheumatology, Gent, Belgium*

Background: Diagnosis of axial spondyloarthritis (axSpA) is challenging since clinical manifestations often overlap with other disorders and a specific laboratory test for diagnosis is lacking. Previously, we identified antibodies to 3 Hasselt University (UH)-axSpA peptides which could provide a novel tool for diagnosis of a subset of axSpA patients. Validation of antibody reactivity in plasma samples of early axSpA patients (disease duration < 5 years) from the UH and the Leuven Spondyloarthritis (Biologics) Cohort ((Bio)SPAR) cohorts revealed antibody reactivity against at least one of these 3 peptide targets in 14.2% of early axSpA patients (22/155)[1].
Objectives: We aim to validate the diagnostic potential of the antibodies to these 3 peptides in a third independent cohort of new onset axSpA patients and controls.
Methods: Using enzyme-linked immunosorbent assays (ELISA), presence of antibodies to the 3 peptides was determined in 188 serum samples of the Belgian Inflammatory Arthritis and Spondylitis (Be-Giant) cohort, 74 controls with non-specific chronic low back pain (CLBP) and 112 age and gender-matched healthy controls from the UH cohort. Patients were classified as having axSpA according to the ASAS classification criteria and had a mean age of 32.7 years. We further investigated whether clinical and disease characteristics were correlated with antibody reactivity.
Results: The presence of antibodies against 2 of the 3 UH-axSpA peptides was confirmed in the Be-Giant cohort. Antibody reactivity against 1 of the 2 UH-axSpA peptides was found in 11.2 % of newly diagnosed axSpA patients (21/188) compared to 3.6% (4/112, *p=0.0290*) in HC and 6.8% (5/74, *p=0.3619*) in CLBP. We did not detect a significant difference in age, sex, HLA–B27 status, enthesitis, symptom duration, treatment, Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), BathAnkylosing Spondylitis Functional Index (BASFI), erythrocyte sedimentation rate (ESR), or C-reactive protein (CRP) levels between axSpA patients with and those without antibody reactivity against these 2 UH-axSpA peptides.
Conclusion: The presence of antibodies to 2 UH-axSpA peptides was confirmed in an independent cohort of newly diagnosed axSpA patients and could be of added value for discriminating axSpA patients from HC in the Be-Giant cohort.
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Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2022-eular.2759

POS0983 LIFESTYLE IN AXIAL SPONDYLOARTHRITIS - COMPARISONS BETWEEN PATIENTS AND CONTROLS, AXIAL SPONDYLOARTHRITIS SUBTYPES, MALE AND FEMALE PATIENTS, AND ITS ASSOCIATION WITH DISEASE AND HEALTH OUTCOMES. RESULTS FROM THE SPARTAKUS COHORT

E. Mogard[1], T. Olofsson[1], A. Bremander[2,3,4,5], J. Sagard[1], J. K. Wallman[1], E. Lindqvist[1]. *[1]Lund University, Skane University Hospital, Department of Clinical Sciences Lund, Rheumatology, Lund, Sweden; [2]Lund University, Department of Clinical Sciences Lund, Rheumatology, Lund, Sweden; [3]Spenshult, Research and Development Centre, Halmstad, Sweden; [4]University of Southern Denmark, Department of Regional Health Research, Odense, Denmark; [5]University Hospital of Southern Denmark, Danish Hospital for Rheumatic Diseases, Sønderborg, Denmark*

Background: Healthy lifestyle behaviours are associated with better health outcomes and quality of life in the general population (1, 2). In patients with axial spondyloarthritis (axSpA), however, little is known regarding multiple lifestyle behaviours and their associations with disease and health outcomes.
Objectives: To study lifestyle behaviours in patients with axSpA in relation to healthy controls, between axSpA subtypes and male and female patients, respectively, and to assess how the presence of two or more unhealthy lifestyle factors associate with disease and health outcomes.
Methods: We performed a cross-sectional study of 250 well-characterized axSpA patients (167 with radiographic axSpA [r-axSpA; ASAS and/or modified New York criteria], 83 with non-radiographic axSpA [nr-axSpA; ASAS criteria]) and 48 controls (frequency-matched to the patients for age and sex), participating in the population-based SPARTAKUS study in southern Sweden. Self-reported data on smoking, alcohol use, physical activity, dietary habits, and objectively measured body mass index (BMI), respectively, for all subjects was categorized as fulfilling national recommendations or not (healthy/unhealthy), and summarized in an index (0-5, indicating the number of unhealthy lifestyle factors). The index was also dichotomized into 0-1 vs. 2-5 unhealthy lifestyle factors. Comparisons between patients and controls, axSpA subtypes (r-axSpA vs. nr-axSpA), and between male and female patients were performed by Student's t-test/Chi-square test, as appropriate. Linear regression analyses were used to explore associations between having ≥2 unhealthy lifestyle factors (yes/no) and disease and health outcomes.
Results: Characteristics and lifestyle factors for axSpA patients and controls are presented in the Table 1. Reporting ≥2 unhealthy lifestyle factors was more common in axSpA patients than controls (35% vs. 19%, p=0.029), while no difference was found between the axSpA subtypes (Figure 1 a and b). Male patients more often reported several unhealthy lifestyle factors than female patients (Figure 1 c), with more frequent unhealthy alcohol use (19% vs. 9%, p=0.023) and overweight/obesity; BMI ≥25 (63% vs. 50%, p=0.043), while smoking, physical activity, and dietary habits were similar. In addition, older patients displayed more unhealthy lifestyle factors (Figure 1 d). Having ≥2 unhealthy lifestyle factors was associated with worse disease activity (ASDAS-CRP) (β-est [95% CI]) (0.34 [0.11: 0.58]), physical function (BASFI) (0.73 [0.18; 1.28]), pain (1.03 [0.39; 1.67]), fatigue (0.95 [0.24; 1.66]), and quality of life (EQ-5D) (-0.09 [-0.15; -0.02]) in axSpA patients, adjusted for age, sex, and axSpA subtype (all p≤0.010)