BACKGROUND: The patient-reported Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) includes the six components fatigue, neck, back or hip pain, pain or swelling in other joints, tenderness, morning stiffness severity and duration on a 0-10 scale.

OBJECTIVES: To explore the driving factors for the BASDAI in pregnant patients with axial spondyloarthritis (axSpA).

Methods: Anonymized pooled data of the European Network of Pregnancy Registries in Rheumatology (EuNeP) were used. The four participating registries are located in France, Germany, Norway and Switzerland, and collect data of women with child wish, during and after pregnancy prospectively and nationwide on regular time points. For the analysis, women who fulfilled ASAS classification criteria for axSpA and for whom a pregnancy outcome was reported until 12/2019 or 07/2020, depending on the registry, were selected. Mean BASDAI and its components were analysed descriptively.

Results: A total of 332 pregnancies from 304 women with axSpA were eligible. The Norwegian registry contributed half of the pregnancies (50.3%), followed by Germany (26.2%), France (15.4%) and Switzerland (8.1%). Mean maternal age was 31 years, the average disease duration 5 years. Mean BASDAI was 3.0 before conception, 3.4, 3.4 and 3.5 in the 1st, 2nd and 3rd trimester, and 3.4 within 6 months postpartum. The figure shows mean values of the BASDAI and its individual components in the different time periods. Fatigue was higher than the mean score during all phases, and especially elevated in the 1st and 3rd trimester. Further values for neck, back or hip pain were higher than the mean score, especially from 2nd trimester on. All other components were lower than the mean score.

Data were not reported for all pregnancies and all time periods. Availability was highest in the 2nd and 3rd trimester with reported BASDAI in 60% and 62% of the pregnancies, respectively. Lowest reporting was 24% in the preconception period because only a part of the women was also observed before pregnancy.

CONCLUSION: The BASDAI is a validated instrument for assessing disease activity in patients with axSpA. Since the calculation of the score also includes factors that can be influenced by pregnancy, it may only be of limited value for measuring disease activity in pregnancy. This analysis shows that mainly fatigue and back pain in particular have an impact on the mean BASDAI. A limitation of this analysis is that data were not available for all measured time points of the individual pregnancies. Therefore, the results should be confirmed by other studies.

Figure 1. Means of BASDAI components before, during and after pregnancy (the table presents means ± standard deviation).

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AB0792  HIP INVOLVEMENT IN SPONDYLOARTHITIS: ANALYSIS OF ASSOCIATED FACTORS

H. Tbilisi, M. Stouarna, S. Rahmouni, A. Abdennader, K. Amiri, Y. Mallaif, L. Metouib, R. Dhahri, I. Ghanassih, B. Louiziz, Tunis, Department of Rheumatology, Military Hospital, Tunis, Tunisia; Tunis, Tunisia; Tunis, Department of Orthopedic Surgery, Military Hospital, Tunis, Tunisia, Tunis, Tunisia; Tunis, Department of Internal Medicine, Military Hospital, Tunis, Tunisia, Tunis, Tunisia

Background: Hip involvement occurs in about one-third of patients with spondyloarthritis (SA) [1]. It can be responsible for significant disability and functional impairment.

Objectives: This study aimed to assess the associated factors with hip involvement in SA.

Methods: We conducted a cross-sectional study, including 165 patients with SA diagnosed according to Assessment of SpondyloArthritis international Society (ASAS) criteria over a period from 2017 to 2021. Demographic, clinical, biological and radiographic data were collected. We compared following parameters assessed at the time of diagnosis of coxitis: Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Ankylosing Spondylitis Disease Activity Score (ASDAS-CRP), modified Stoke Ankylosing Spondylitis Score (mSASSS), Bath Ankylosing Spondylitis Radiology Index (BASRI), erthrocyte sedimentation rate (ESR) and C-reactive protein (CRP). We used logistic regression analysis to identify factors associated with hip involvement in SA.

Results: A total of 165 Patients were enrolled (121 men and 44 women), the mean age was 46.13 ± 13.07 years. The mean age of disease onset was 35.01 ± 12.55 years. The average diagnostic delay was 37.54 ± 50.51 months. The average disease duration was 10.91 ± 6.94 years. Eighty seven percent of patients had axial spondyloarthritis, 72% had extra-articular manifestations. Mean ESR and CRP values were 37.49 ± 28.1 mm and 30.14 ± 43.55 mg/L, respectively. Mean BASDAI and ASDAS-CRP values were 4 ± 1.8 and 3.09 ± 1.13, respectively. Hip involvement was noted in 60 patients (36.4%). It was bilateral in 75% of cases (n=45). A total number of affected hips was 105. Following parameters were significantly higher in patients with hip involvement: age over 40 years old (73.3 vs 56.3%, p=0.030), symptoms duration over 10 years (60% vs 40.2%, p=0.015), elevated CRP (87.9% vs 73.7%, p=0.036), radiographic sacroiliitis (95% vs 82.7%, p=0.023), frequency of pulmonary involvement (25.0% vs 11.4%, p=0.023), frequency of osteoporosis (20.0% vs 8.6%, p=0.034) BASMI (3.71 vs 1.65, p<0.001), BASRI spine (5.97 vs 2.91, p<0.001), and mSASSS (16.24 vs 5.80, p<0.001). However, no association was found between HLA-B27 and hip involvement (50% vs 28.6%, p=0.099). A multivariable logistic regression model showed that age over 40 years (OR=2.588 [1.020 - 7.083], p=0.045), radiographic sacroiliitis (OR=5.656 [1.007 - 31.769], p=0.049), and very high disease activity (ASDAS-CRP>3.5) (OR=5.328 [1.774 - 16.002], p=0.003) were independently associated with hip involvement in SA.

Conclusion: Our study showed that age, symptoms duration, radiographic sacroiliitis, extra-articular manifestations, axial structural damage, elevated CRP, and very high disease activity were associated with hip involvement. These findings suggest that the control of disease activity and inflammation may prevent the onset of hip involvement. There are controversial findings regarding the association between HLA B27 gene and hip involvement [2].

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AB0793  FACET JOINT DISEASE IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS: A RETROSPECTIVE CONVENTIONAL COMPUTED TOMOGRAPHY STUDY

G. Slobodin1, M. Sagiy2, T. Khreisch, A. Shouval1, S. Croitoru1, I. Eshhed2, 3Bnai Zion Medical Center, Rheumatology, Haifa, Israel; 2Sheba Medical Center, Internal Medicine, Ramat Gan, Israel; 3Bnai Zion Medical Center, Internal Medicine, Haifa, Israel; 3Bnai Zion Medical Center, Radiology, Haifa, Israel; 5Sheba Medical Center, Radiology, Ramat Gan, Israel

Background: Facet joints (FJ) ankylosis was reported to occur frequently in patients with ankylosing spondylitis (AS). However, a detailed FJ evaluation was not reported in patients over the spectrum of axial spondyloarthritis (AxSpA).

Objectives: To analyze structural lesions in the FJ of patients with different forms of AxSpA, using computed tomography (CT).

Methods: All available conventional CT studies of the cervical, thoracic, lumbar spine, or studies of the chest or abdomen of patients with AS or non-radiographic AxSpA (nrAxSpA) from a single medical center cohort were analyzed for the presence of erosions, ankylosis, joint-space narrowing, osteophytes, subchondral sclerosis, subchondral cysts and vacuum phenomenon by 2 experienced readers. All patients, as well as age and gender matched control group, who performed conventional CT of the spine for any cause, but did not have a known rheumatic disease, had to be at the age of 50 years or less at the time of the study. The findings were binarically scored as present/absent. Several types of changes could be noted in the same FJ. All FJ findings were compared between groups of AxSpA patients and controls, separately for the cervical, thoracic and lumbar spine. Further, AxSpA patients were subdivided into three groups of which FJ findings were compared: AS patients with (AS+) or without (AS-) syndesmophytes on the cervical or lumbar radiographs, and patients with nrAxSpA as per pelvic radiograph. Fisher’s exact test or Chi-Square test at < http://vassarstats.net >, were used to compare between groups.

Results: 959/666 FJs (49/44 patients) were assessed in the AxSpA/control group patients, respectively. The study group consisted of 16 AS+ patients, 22 AS- patients, and 11 nrAxSpA patients. FJ ankylosis was significantly more prevalent in all spinal segments of the AS+ group compared to the two other groups. Erosions were seen almost exclusively in patients with AS. Joint-space narrowing and osteophytes were noted in all segments and all subgroups of AxSpA patients, including those with nrAxSpA.

Conclusion: FJ involvement is prevalent in all forms of AxSpA, including its non-radiographic form. FJ joint involvement is an important factor in axSpA patients.

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