predictors of improvement in work productivity at 6 months, while increased baseline work productivity was a positive predictor of improvement. In the PsA group, other than higher baseline work productivity (positive predictor of improvement), no significant predictors were identified at 6 months. However, a negative trend was observed for the presence of depression (LSM: -0.4% vs. -2.5%; $p=0.068$).

Conclusion: We observed a significant proportion of AS and PsA patients unemployed in this real-world Canadian cohort. Treatment with adalimumab or non-biologic DMARDs was associated with significant improvement in work productivity irrespective of potential risk factors. Presence of depression was identified as an independent negative predictor of improvement in work performance/productivity.

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THU0372

NEUROPATHIC PAIN IN THE PATIENTS WITH SPONDYLOARTHRITIS: RELATIONSHIP WITH FATIGUE, SLEEP QUALITY AND QUALITY OF LIFE

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Background: Neuropathic pain is defined as the pain that arises as a direct consequence of a lesion or diseases affecting the somatosensory system. Low back pain has nociceptive, neuropathic or mixed components. Inflammatory back pain is one of the key clinical criteria for the classification of spondyloarthritis (SpA). There are no accurate data for the overall prevalence of neuropathic pain in the inflammatory disorders.

Objectives: In the present study we aimed to determine whether there is a neuropathic component in SpA and also to determine the relationship with disease activity, clinical findings, fatigue, sleep quality and quality of life.

Methods: Eighty SpA patients fulfilling the Assessment of SpondyloArthritis International Society (ASAS) classification criteria for SpA (M/F=42/38) (37.3±11 years), 53 patients with chronic low back pain (CLBP) (M/F=22/31) (45.5±13.6 years) and 50 healthy controls (M/F =28/22) (38.1±12.7 years) were enrolled in the study. Pain was assessed with visual analogue scale (VAS rest and activity), disease activity with Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), functional capacity with Bath Ankylosing Spondylitis Functional Index (BASFI), fatigue with multidimensional assessment of fatigue (MAF), sleep quality with Pittsburgh Sleep Quality Index (PSQI) and quality of life was assessed with Short Form 36 (SF-36). Neuropathic pain was determined by using PainDETECT questionnaire, a simple and reliable screening questionnaire. Scores ≤12 indicate that a neuropathic pain component is unlikely, and scores ≥19 indicate that neuropathic component is very likely to be present. Scores between 12 and 19 suggest that the result is unclear.

Results: The PainDETECT score of the SpA patients, CLBP patients and healthy controls were 12.06±5.9, 13.8±7.5, 2.6±4.2, respectively. While there was no significant difference between the patients with SpA and CLBP ($p>0.05$), the SpA patients had significantly higher scores than the healthy controls ($p<0.0001$). 14 (17.5%) of the SpA patients, 14 (26.4%) of the CLBP patients and none of the healthy controls had PainDETECT score ≥19 ($p<0.05$). The MAF score and all subscales of SF 36 all components were significantly different in the three groups ($p<0.05$). There were also statistically significant differences between three groups for all subscales of PSQI except duration of sleep and need medications to sleep ($p<0.05$). PainDETECT score was positively correlated with VAS rest, BASDAI, and BASFI in the patients with SpA. While PainDETECT

score was positively correlated with MAF and total PSQI, sleep quality, sleep disturbance, daytime dysfunction scores, it was negatively correlated with SF-36 subscales of social functioning, mental health, general health, bodily pain ($p<0.05$).

Conclusion: We found that SpA and CLBP patients had higher PainDETECT scores than the healthy controls. 17% of the SpA patients had neuropathic pain. We also found that neuropathic pain was correlated with fatigue, sleep quality and quality of life. Since pain in SpA consists of inflammatory and neuropathic components, a better understanding of neuropathic pain mechanisms in SpA will provide a more targeted approach to the assessment and treatment of patients.

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THU0373

ACTIVE SACROILIITIS ON MAGNETIC RESONANCE IMAGING IN PATIENTS WITH ANTERIOR UVEITIS

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Background: Anterior uveitis (AU) is a common extraarticular manifestation in spondyloarthritis (SpA). The disease can precede the typical axial and peripheral features. Additionally, some studies had described positive bone marrow edema in patients with AU lacking chronic back pain.

Objectives: The aim of this study was to examine patients with AU, to determine whether the patients already fulfil criteria for axial and/or peripheral SpA and compare the findings to healthy controls (HC).

Methods: We recruited 65 patients without prior rheumatologic diagnosis who developed at least one episode of AU and 33 age and sex matched HC. The clinical data were collected and rheumatology examinations were performed by trained rheumatologists. Magnetic resonance imaging (MRI) of sacroiliac joints (SIJ) was read by trained rheumatologist who was blinded to the patient's data. Patients were divided into SpA subsets (axial: imaging and clinical arm and peripheral SpA) fulfilling The Assessment of SpondyloArthritis International Society (ASAS) classification criteria and non-SpA subset. The ASAS modified Berlin algorithm for diagnosis of axial SpA (axSpA) was also applied.

Results: Altogether, 72% (n=47) patients referred back pain including 22.0% (n=14) patients referring inflammatory back pain, 28% (n=18) did not refer back pain. Similar results were found in HC subset. Bone marrow edema (BME) was found in 51% (n=33) of all patients with AU, however 35% (n=23) had highly suggestive BME (hsBME) corresponding to typical findings in sacroiliitis compared to HC where 30% (n=10) had BME, however none had hsBME ($p=0.08$, $p<0.0001$, respectively). Furthermore, patients with AU had higher serum CRP levels compared to HC ($p=0.001$), no other significant differences were observed. The diagnosis of SpA was confirmed in 46% (n=30) of all patients with AU, 34% (n=22) patients fulfilled the imaging arm and 12% (n=7) fulfilled the clinical arm of ASAS classification criteria for axSpA, 3% (n=2) patients fulfilled ASAS classification criteria for peripheral SpA. Two patients lacking back pain developed hsBME on SIJ. The diagnosis of axSpA according to the ASAS modified Berlin algorithm was confirmed in 42% (n=27) patients. Analysis of clinical characteristics showed significant difference between BASDAI in SpA vs. non-SpA (1.6 ± 1.5 vs 0.8 ± 1.0 , $p=0.007$, respectively), and remained significant in those fulfilling imaging arm of axial SpA ($p=0.04$). The levels of CRP were significantly higher in SpA compared to non-SpA subsets (8.6 ± 9.7 vs 2.6 ± 2.7 mg/L, $p=0.003$). Presence of back pain and inflammatory back pain were more often in SpA compared to non-SpA subsets (97% and 43% vs. 51% and 3%, $p=0.001$ and $p=0.001$ respectively). Patients with hsBME had significantly higher serum CRP levels compared to patients lacking hsBME (9.0 ± 10.4 vs 3.3 ± 4.2 mg/L, $p=0.005$), no other significant differences were observed.

Conclusion: More than one third of patients with AU fulfilled the criteria for axial or peripheral SpA. Furthermore, the prevalence of back pain, increased BASDAI and serum CRP levels was significantly higher in AU patients with SpA compared to non-SpA subjects and HC. Inflammatory back pain was significantly more often in patients with AU classified as axSpA. Patients with hsBME had significantly higher serum CRP levels compared to the rest of the patients.

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THU0374 GENDER DIFFERENCE IN ASAS HEALTH INDEX IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: The Assessment of Spondyloarthritis international Society Health Index (ASAS HI) has been developed and validated to assess health and function in patients with spondyloarthritis. However, whether ASAS HI differs between men and women is unknown. The aim of this study was to compare ASAS HI between men and women in patients with ankylosing spondylitis (AS).

Objectives: The aim of this study was to compare ASAS HI between men and women in patients with ankylosing spondylitis (AS).

Methods: Since November 2016, we measured and recorded data of demography, comorbidity, family history, medication use, the Ankylosing Spondylitis Disease Activity Score (ASDAS), the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), the Bath Ankylosing Spondylitis Functional Index (BASFI), the modified Stoke Ankylosing Spondylitis Spinal Score (mSASSS) and the ASAS HI for AS patients in clinical practice using an electronic patient reported data system linked to an electronic medical record system in Taichung Veterans General hospital (TCVGH). We retrieved the last recorded data of AS patients in TCVGH during 2017/11–2018/10. We assessed the association between gender and the ASAS HI using a multivariable linear regression model. Variables from the univariable linear regression analysis with $p < 0.2$ were included in the multivariable analysis. We used a forward selection method to build the models.

Results: A total of 307 AS patients [62 (20.2%) females, mean age 46.4 years (S.D. 13.3), mean symptom duration 20.6 years (S.D. 12.1)] were included. Female patients had an older age at onset (29.2 ± 12.6 vs 24.9 ± 9.6 years, $p = 0.015$), a shorter symptom duration (15.7 ± 11.6 vs 21.8 ± 12.0 years, $p < 0.001$), a lower proportion of smoking (6.5% vs 48.2%, $p < 0.001$), higher ASAS HI (5.9 ± 3.8 vs 4.3 ± 3.4 , $p = 0.001$), higher ASDAS-ESR (1.9 ± 0.8 vs 1.5 ± 0.8 , $p < 0.001$) and lower mSASSS (6.0 ± 11.4 vs 21.8 ± 23.1 , $p < 0.001$) than male patients. There were no significant differences in BASFI (1.1 ± 1.6 vs 1.2 ± 1.7 , $p = 0.765$), ASDAS-CRP (1.5 ± 0.9 vs 1.5 ± 0.9 , $p = 0.972$) and BASDAI (2.4 ± 1.8 vs 2.0 ± 1.4 , $p = 0.115$) between females and males. In multivariable analysis, male gender was significantly associated with a better ASAS HI ($B = -1.73$, 95% CI: -2.55, -0.91, $p < 0.001$). Other significant predictors of ASAS HI included BASDAI ($B = 1.29$, 95% CI: 1.07, 1.50, $p < 0.001$), disease duration ($B = 0.04$, 95% CI: 0.01, 0.06, $p = 0.015$), mSASSS ($B = 0.02$, 95% CI: 0.01, 0.04, $p = 0.003$) and hepatitis B ($B = 0.99$, 95% CI: 0.03, 1.96, $p = 0.044$).

Conclusion: This single center, cross-sectional study revealed that male gender was significantly associated with lower ASAS HI in AS patients.

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THU0375 CLINICAL FEATURES OF AXIAL SPONDYLOARTHRITIS PATIENTS DIAGNOSED IN PERIPHERAL VERSUS AN ACADEMIC HOSPITAL

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Background: Diagnosis of axial spondyloarthritis (axSpA) often relies on a positive magnetic resonance image of the sacroiliac joints (MRI-SIJ). However, pitfalls in interpretation of MRI-SIJ were recently acknowledged (1). Thus reader's expertise might be a source of heterogeneity in patient populations diagnosed with non-radiographic axSpA.

Objectives: We compared clinical characteristics of axSpA patients diagnosed in peripheral hospitals (MRI evaluation by local experts) versus an academic hospital (MRI central reading by trained radiologists and rheumatologists).

Methods: Patients originate from the Be-Giant cohort, a Belgian nationwide observational registry of axSpA patients diagnosed by expert opinion. Included patients fulfill the Assessment of SpondyloArthritis international Society (ASAS) classification criteria for axSpA and are anti-TNF- α naïve prior to inclusion. Patient enrollment started in 2010 and 2012 at the outpatient clinic of 1 academic and 7 peripheral hospitals respectively. Patients were free to visit a rheumatologist of their choice without necessity for referral by a general practitioner.

Results: By January 2019, 291 axSpA patients were included. Table 1 presents demographic and clinical characteristics according to the diagnostic echelon. The patient fraction fulfilling the imaging arm of the ASAS classification criteria was similar in both settings (75.4% vs. 88.7%, $p = 0.21$). However, because of a higher HLA B27 positivity rate in patients diagnosed in an academic versus peripheral hospitals (73.5% vs. 57.4%, $p = 0.01$), a significantly higher fraction of patients fulfilled both the clinical and imaging arm in the former diagnostic setting (63.0% vs. 37.7%, $p = 0.01$).

Conclusion: Patients diagnosed with axSpA in peripheral versus an academic hospital generally show similar demographic and clinical characteristics. In an academic center, patients diagnosed with axSpA are more likely to be HLA B27 positive and to fulfill both ASAS classification arms, indicating that rheumatologists in peripheral hospitals seem to assign more value to MRI findings compared to HLA B27 status in the diagnostic process.

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