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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Abstract THU0375 – Table 1

	Peripheral center (n = 61)	Academic center (n = 230)	p-value
Age at diagnosis (years)	33,6 (9,23)	31,3 (9,01)	0,08
Male gender	20 (32,8)	118 (51,3)	0,01
HLA B27 positivity	35 (57,4)	169 (73,5)	0,01
Symptom duration at diagnosis (years)	4,8 (5,45)	4,2 (5,60)	0,51
ASAS classification criteria imaging arm	46 (75,4)	204 (88,7)	0,21
ASAS classification criteria clinical arm	35 (57,4)	169 (73,5)	0,01
ASAS classification criteria both arms	23 (37,7)	145 (63,0)	0,01
Arthritis	11 (18,0)	39 (17,0)	0,99
Dactylitis	1 (1,6)	7 (3,1)	0,88
Enthesitis	11 (18,0)	28 (12,2)	0,33
Psoriasis	7 (11,5)	20 (8,7)	0,68
Inflammatory bowel disease	3 (4,9)	14 (6,1)	0,87
Acute anterior uveitis	6 (9,8)	32 (13,9)	0,53
BMI (kg/m ²)	23,8 (3,86)	24,4 (4,02)	0,26
BASMI	1,1 (1,13)	1,3 (1,17)	0,33
MASES + fascia plantaris (/15)	1,4 (2,50)	0,9 (1,54)	0,69
BASDAI (/100)	46 (19,3)	43 (20,2)	0,31
BASFI (/100)	30 (22,5)	28 (21,8)	0,77
ASDAS – CRP	2,43 (0,89)	2,47 (0,93)	0,80

Continuous variables: mean (SD); other: counts(%).

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THU0376 THE VALUE OF SACROILIAC JOINT RADIOGRAPHS IN THE EARLY SPONDYLOARTHRITIS ESPERANZA COHORT

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Background: X-Ray sacroiliitis is the cornerstone in the diagnosis of the ankylosing spondylitis (AS). It is clear that the presence of sacroiliitis is a specific lesion in long standing AS, but little evidence exists on the reliability of this image technique in early axial spondyloarthritis (axSpA), which associates with reduced structural damage. This is relevant because some rheumatologists and pharmacological authorities feel more confident with the diagnosis of AS rather than with non radiographic axial spondyloarthritis (nr-axSpA) forms. On the other hand, according to various research studies, clinicians are subject to potential bias when interpreting radiographs, influenced by their pretest clinical judgment.

Objectives: The aim of this study is to determine the value of X-Ray sacroiliitis in the early diagnosis of axSpA.

Methods: This study included 290 radiographs of the SI joints from patients of the Esperanza early spondyloarthritis cohort. Nine readers, blinded for the diagnosis, participated in the reliability exercise, all of them experienced rheumatologists and members of the Spanish spondyloarthritis working group (GRESSER). Patients with axSpA were classified as having AS if the radiographic criteria of the modified NY criteria (presence of radiographic changes in the SIJ of at least grade II bilaterally or at least grade III unilaterally) were fulfilled. The gold standard was the categorical opinion of at least five of the expert readers. For the statistical analysis, the Chi-square and Kappa tests were performed.

Results: The radiographic diagnosis, sensitivity, specificity, likelihood ratio, grade of agreement and mean K values compared to gold standard are showed in table 1. The concordance Kappa test was highly variable among the readers, ranging from fair to excellent. The agreement with the gold standard varied from 68 to 94% and the sensitivity and

specificity, from 50-100% and 64-96%, respectively. Additionally, the number of AS was 61, with an inter-reader variability rate of 31 to 138. Larger discrepancies were observed when assessing sacroiliitis grade 2.

Abstract THU0376 – Table 1.

	Gold standard	Reader 1	Reader 2	Reader 3	Reader 4	Reader 5	Reader 6	Reader 7	Reader 8	Reader 9
Kappa		716	345	468	606	599	459	612	513	809
Agreement		90.97	68.06	85.52	84.48	85.12	73.79	87.59	78.47	94.14
SIJ mNY+	61	54	138	31	92	80	137	55	115	48
SIJ mNY TP	61	44	53	25	54	49	61	40	57	46
SIJ mNY FP	229	10	85	6	38	31	76	15	58	2
Sensitivity		73.33%	88.33	59.02	88.52	80.33	100	65.57	93.44	75.41
Specificity		95.61%	62.72	97.38	83.41	86.40	66.81	93.45	74.45	91.13
LR +		16.70	2.369	22.53	5.336	5.907	3.013	10.01	3.657	8.502

SIJ = (SI) joint; mNY+ = number of patients that meet diagnosis of ankylosing spondylitis; TP = true positives; FP = false positives; LR+ = Likelihood ratio +

Conclusion: The diagnosis of AS in early axSpA is characterized by a marked variability. At least in doubtful cases, a second central evaluation performed by highly qualified experts should be advisable.

Disclosure of Interests: Eugenio de Miguel: None declared, Beatriz Joven-Ibáñez Speakers bureau: Celgene, Novartis, MSD, Pfizer, AbbVie, and Janssen, Eva Galindez: None declared, Claudia Urrego-Laurin: None declared, María Luz García-Vivar: None declared, Cristina Fernández-Carballido: None declared, Jose Francisco Garcia Llorente: None declared, María del Carmen Castro Villegas Paid instructor for: MSD, Abbvie, Pfizer, Janssen, Lilly, Roche, Carolina Tornero: None declared, Xavier Juanola-Roura: None declared

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THU0377 THE CARDIOVASCULAR ASSOCIATIONS WITH ENTHESITIS AND DACTYLITIS IN PATIENTS WITH SPONDYLOARTHRITIS: RESULTS FROM THE ASAS-COMOSPA STUDY

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Background: Enthesitis and dactylitis are considered characteristic inflammatory musculoskeletal manifestations of spondyloarthritis (SpA). These manifestations are usually assessed in the context of their assumed underlying specific condition rather than as distinct entities. Data from the ASAS-COMOSPA cohort have recently been shown that duration of SpA disease is associated with higher odds of hypertension particularly in axial SpA (1).

Objectives: To evaluate the possible associations of dactylitis and enthesitis phenotypes with cardiovascular comorbidities in a heterogeneous cohort of patients with SpA.

Methods: ASAS-COMOSPA is a global cross-sectional study assessing comorbidities in 3984 patients with SpA. History of enthesitis or dactylitis was based on self-report with confirmation using the medical records. Associations between dactylitis or enthesitis with hypertension, dyslipidaemia, diabetes, ischemic heart diseases (IHD) and stroke were analysed by separate logistic regression models unadjusted, adjusted for age and sex (models 1), and adjusted for age, sex and BMI (model 2).

Results: The data of 3905 participants were available for analysis. There were 1480 (37.9%) with history of enthesitis and 611 (15.6%) with dactylitis, while 1814 (46.5%) had neither.

Presence of dactylitis was associated with hypertension in the univariable analysis [OR=1.68; 95%CI: 1.39–2.03]. The association remained significant when adjusted for age and sex, but not following further adjustment for BMI (Table). Similarly, enthesitis was associated with hypertension in the univariable analysis [OR=1.36; 95%CI: 1.17–1.59], which remained after adjusted for age and sex, as well as after further adjustment for BMI (Table). Similar associations were seen for dyslipidaemia and dactylitis [OR=1.60; 95%CI: 1.29–1.98] or enthesitis [OR=1.50; 95%CI: 1.26–1.77], with the association with dactylitis lost after further adjustment for BMI while the association with enthesitis remained significant (Table).

While there were significant associations between dactylitis and diabetes [OR: 1.50 (95% CI: 1.07–2.11)], and between enthesitis and diabetes [OR=1.35; 95%CI: 1.02–1.78] in unadjusted models, no associations were