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and by a deterioration in functionality and mental status. However, clinical form of SpA, disease duration and structural damage in spine do not explain this decrease of QoL.

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Disclosure of Interest: None declared

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FRI0435 COMPARISON BETWEEN CENTRAL AND LOCAL ASSESSMENT OF RADIOGRAPHIC SACROILIITIS IN PATIENTS WITH RECENTLY DIAGNOSED AXIAL SPONDYLOARTHRITIS IN PROOF STUDY

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Background: High inter-reader variability of radiographic sacroiliitis assessment has been reported in a number of previous studies, suggesting its low reliability for the diagnosing and classification of axial spondyloarthritis (axSpA).

Objectives: To compare the results of local versus central scoring of radiographic sacroiliitis in a large multinational cohort of patients (pts) with recently diagnosed axSpA.

Methods: PROOF is a prospective observational study evaluating clinical and radiographic outcomes in axSpA pts in rheumatology clinical practice in 29 countries. Pts with axSpA fulfilling ASAS classification criteria were eligible if diagnosed ≤1 year prior to study enrolment. Radiographs of sacroiliac joints (SIJ) collected at baseline were graded according to the modified New York (mNY) criteria (0–4 for each SIJ). Pts with sacroiliitis of grade ≥2 bilaterally or grade ≥3 unilaterally were classified as ankylosing spondylitis (AS); otherwise pts were classified as non-radiographic axSpA (nr-axSpA). All available radiographs were assessed first by a local reader (LR) and then by a central reader (CR1), who was blinded to the results of the LR. In the case of a disagreement in the classification (AS or nr-axSpA), the radiograph was evaluated by the 2nd central reader (CR2), who was blinded to the previous assessments and the final classification was made based on the decision of 2 out of 3 readers.

Results: Of the 2126 pts enrolled in PROOF, 1583 were included in this analysis based on evaluable radiographs of the SIJ. Based on the LR judgment, 987 pts were classified as AS and 596 as nr-axSpA, while 1158 were classified as AS and 425 as nr-axSpA according to CR1. Following CR1 assessment, 1146 (72.4%) pts retained their LR classification, while 437 (27.6%) pts were classified differently. Of the 437 pts with discrepant classification assessed by CR2, 175 (40%) retained their initial LR classification and 265 (60%) were re-classified. The agreement between the CR1 and CR2 (kappa=0.24 [95% CI: 0.17–0.32]) was lower than between LR and CR1 (kappa=0.38 [95% CI: 0.33–0.42]). Finally, 1039 pts were classified as AS and 544 as axSpA; 1321 (83.5%) pts retained their initial classification and 262 (16.5%) were re-classified (157 from nr-axSpA to AS and 105 from AS to nr-axSpA). There was a substantial agreement between local and final central classification (kappa=0.64 [95% CI: 0.60–0.68], Figure). Importantly, pts initially classified by a LR as nr-axSpA (157/596, 26.3%) had significantly higher odds (odds ratio=3.0 (95% CI: 2.3–3.9) of being re-classified compared with pts classified as AS (105/987, 10.6%).

Conclusions: In the PROOF study, the agreement between local and central classification of pts with axSpA (nr-axSpA vs AS) based on the grading of SIJ radiographs by mNY criteria was reasonably good. Pts locally classified as nr-axSpA were three times more likely to be re-classified compared with AS pts, which may be related to difficulty in the assessment of less advanced structural changes.

Acknowledgements: AbbVie funded the PROOF study, contributed to its design and participated in data collection, analysis and interpretation of the data, and in writing, review, and approval of the publication. Medical writing support was provided by Deepa Venkitaramani, PhD, of AbbVie.

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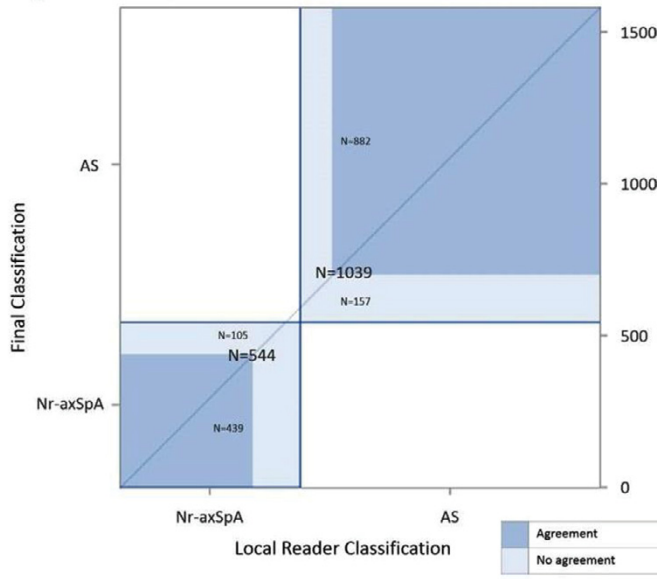
Figure. Final Classification of Patients with axSpA in Relation to Their Initial Local Classification in the PROOF Study Based on the Assessment of the Radiographic Changes in the Sacroiliac Joints.



AS = ankylosing spondylitis; nr-axSpA = non-radiographic axial spondyloarthritis.

FRI0436 CHRONIC PAIN IN PATIENTS WITH ESTABLISHED AXIAL SPONDYLOARTHRITIS AND ASSESSMENT OF PAIN SENSITIVITY BY COMPUTERIZED PNEUMATIC CUFF PRESSURE ALGOMETRY: RESULTS FROM THE SPARTAKUS COHORT

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Background: Pain is a common symptom in all arthritides, and remains a problem also with better treatment options. In axial spondyloarthritis (ax-SpA), data on chronic pain remain scarce.

Objectives: To study pain distribution, duration and intensity in ax-SpA, and relate this to disease status and measurement of pressure pain sensitivity.

Methods: Consecutive patients (n=115) with clinical ax-SpA diagnoses (ankylosing spondylitis (AS) or undifferentiated axial spondyloarthritis (USpA)) were examined and answered pain questionnaires. Patients were categorised as having no chronic pain (NCP), chronic regional pain (CRP) or chronic widespread pain (CWP). Pressure pain sensitivity was assessed by computerized pneumatic cuff pressure algometry (CPA) on the dominant lower leg, and pain threshold, pain tolerance and temporal summation (assessed by the temporal summation index, TSI) were recorded. Differences in disease status and pressure pain sensitivity between patients with CWP versus NCP were assessed (Chi-square or Mann-Whitney U-test). Pressure pain sensitivity was also compared between patients with/without unacceptable pain levels (VAS pain >40 versus ≤40; Mann-Whitney U-test).

Results: Fifty percent of patients reported CWP, irrespective of clinical diagnosis (AS 47%, USpA 53%), and more women than men reported CWP (59% versus 37%, p<0.001). Only 18% of all patients reported NCP. Overall, higher disease

Mean (SD) unless indicated	All cases n=115	Non chronic pain (NCP) n=20	Chronic regional pain (CRP) n=38	Chronic widespread pain (CWP) n=57	NCP vs CWP p value
Female sex, n (%)	66 (57)	6 (30)	21 (55)	39 (68)	0.004
Age, years, years	53 (13)	52 (16)	49 (13)	55 (12)	0.384
Disease duration, years	25 (14)	24 (14)	22 (13)	29 (14)	0.148
HLA-B27 positive, yes (%)	83 (74)	14 (78)	30 (79)	39 (68)	0.560
AS/USpA (ICD-10) n	60/55	13/7	19/19	28/29	0.299
VAS pain, 0–100	37 (27)	15 (18)	32 (26)	49 (24)	<0.001
VAS global	38 (26)	19 (22)	32 (26)	48 (22)	<0.001
VAS fatigue	40 (28)	23 (23)	33 (28)	51 (26)	<0.001
BASDAI	3.5 (2.3)	1.6 (1.6)	3.0 (2.0)	4.9 (2.1)	<0.001
BASFI	2.5 (2.4)	1.1 (1.4)	1.8 (2.3)	3.7 (2.4)	<0.001
BASMI	3.1 (1.6)	2.9 (1.6)	2.9 (1.9)	3.3 (1.4)	0.255
ASDAS-CRP	2.1 (1.0)	1.2 (0.7)	1.8 (0.9)	2.7 (0.8)	<0.001
Pain threshold ,kPa	30.1 (14.4)	33.7 (18.1)	30.7 (11.5)	27.8 (14.8)	0.216
Pain tolerance, kPa	62.1 (26.5)	71.6 (29.5)	63.0 (25.0)	56.8 (25.6)	0.069
TSI	0.60 (0.59)	0.53 (0.46)	0.60 (0.57)	0.63 (0.66)	0.189

activity, pain intensity, worse fatigue, global health and function were observed among patients with CWP compared to those with NCP. There was a trend towards lower pain tolerance in patients with CWP compared to NCP (Table). Lower pain tolerance and higher TSI scores were observed among patients reporting VAS pain >40 versus those with VAS pain scores ≤40 ((mean (SD)) 51.9 (21.2) versus 68.1 (28.1), p=0.007; 0.73 (0.60) versus 0.55 (0.59), p=0.045).
Conclusions: In this population-based, cross-sectional study of established ax-SpA, chronic widespread pain was common, affecting 50% of the patients and generally associated with higher disease activity and worse function. CPA shows promising results regarding assessment of pain sensitivity, although larger studies are needed for more conclusive results.
Acknowledgements: Miriam Walsh-Ingelström performing all CPA assessments
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FRI0437 EFFECTS OF ANKYLOSING SPONDYLITIS ON PLANTAR PRESSURE DISTRIBUTION

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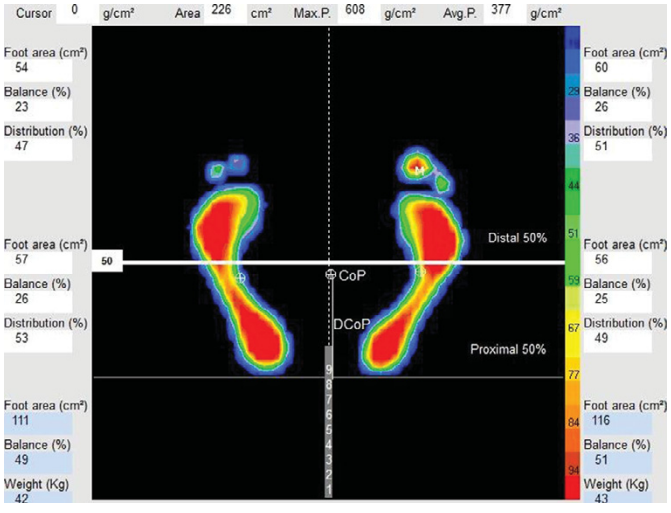
Background: It is considered that postural changes that occur in patients with ankylosing spondylitis (AS) are biomechanically compensated for by contribution from movements of hip, knee and ankle joints [1]. The effects of this phenomenon on the foot, the most distal segment of the kinetic chain, have not been fully elucidated.
Objectives: In the present study, our aim was to investigate possible changes in plantar load distribution in AS patients.
Methods: The study enrolled 30 AS patients diagnosed as per modified New York criteria and 30 healthy controls matched for age, gender and body mass index. Bath Ankylosing Spondylitis Metrology Index (BASMI), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) and Bath Ankylosing Spondylitis Functional Index (BASFI) scores were obtained for all patients. Using a foot pressure platform, the distance from the center of pressure (CoP) to the posterior heel line was measured in centimeters (cm) in both groups (DCoP) (figure 1). Percent total plantar load distribution over the proximal half and distal half of the foot was calculated.
Results: Mean DCoP distance was significantly shorter in AS patients 9.65±0.96 cm) in comparison to that of control group (10.41±0.89 cm) (p=0.011). While the percent total plantar pressure applied on proximal half of the foot was 60.46±7.62% in AS patients, it was only 55.95±6.21% in the control group (p=0.031). However, AS patients had less percent pressure applied on the distal half of the foot (39.53±7.62%) versus control patients (44.04±6.21%) (p=0.031). The mean ratio of the percent pressure distribution over the proximal half of the foot to the percent pressure distribution over the distal half of the foot was significantly greater in AS patients (1.64±0.62) compared to control group (1.31±0.35) (p=0.037).



Conclusions: Plantar pressure distribution seems to be displaced towards the heel in the sagittal plane due to biomechanical changes in patients with ankylosing spondylitis. This points out to the significance of the lower extremities in the compensation of postural changes in AS patients.
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[1] Murray HC, Elliott C, Barton SE, Murray A: Do patients with ankylosing spondylitis have poorer balance than normal subjects? Rheumatology 2000, 39:497–500.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6241

FRI0438 RISK FACTORS FOR UVEITIS IN PATIENTS WITH ANKYLOSING SPONDYLITIS: A RETROSPECTIVE COHORT STUDY

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Background: The uveitis is one of the most common extra-articular manifestation of ankylosing spondylitis (AS), occurring in 20–30% of the patients with AS. But it is not clear which factors are associated with the occurrence of uveitis in patients with AS.
Objectives: To evaluate the risk factors for uveitis in patients with AS.
Methods: A total of 1061 Korean patients who were diagnosed with AS at Seoul National University Hospital between January 2004 and December 2015 were evaluated in this study. Using electronic medical record review, the information on the occurrence of uveitis after AS diagnosis and the other demographic and clinical characteristic were obtained, which included age, gender, disease duration, previous history of uveitis, smoking status, Bath ankylosing spondylitis activity index, HLA-B27 positivity and level of serum inflammatory markers. After dividing the patients into those who experienced uveitis after AS diagnosis (uveitis group) and those who did not (non-uveitis group), the potential risk factors for the occurrence of uveitis were evaluated using univariable and multivariable logistic regression analysis. Receiver operating curve analysis was performed.
Results: Among the 1061 patients, 837 (78.9%) were male and their mean (SD) age was 27.9 (6.2) years. During the observation of 4231 patient-year, uveitis occurred in 142 (13.4%) patients (uveitis group). Patients in the uveitis group had longer disease duration than those in the non-uveitis group (10.0±6.6 vs. 8.2±6.2 years, p=0.003). The proportion of the patients with prior uveitis before diagnosis of AS or HLA-B27 positivity were higher in the uveitis group than those in the non-uveitis group. (58.5% vs. 12.1%, 95.7% vs.83.7%, respectively) There were no significant differences in ESR and CRP between the two groups. In the multivariable analysis, two most significant risk factors for new-onset uveitis was the prior uveitis before the diagnosis of AS (OR=11.18 [95% confidence interval (CI): 7.09–17.63]) and HLA-B27 positivity (OR=9.15 [95% CI: 1.23–68.41]). The area under the curve (AUC) of the final multivariable model was 0.809 (95% CI: 0.77–0.85).

Table 1. Risk factors for uveitis in patients with AS (n=1061)

	Uveitis group (n=142)	Non-uveitis group (n=919)	p-value
Males, n (%)	104 (73.2)	733 (79.8)	0.076
Age on symptom onset (years)	28.51±11.56	27.82±11.95	0.541
Disease duration (years)	10.03±6.60	8.22±6.21	*0.003
History of uveitis, n (%)	83 (58.5)	111 (12.1)	*<0.001
Smoking, n (%)	35 (25.0)	184 (20.3)	0.086
ESR (mm/h)	38.84±31.07	28.10±27.33	*0.001
CRP (mg/L)	1.93±2.70	1.60±2.61	0.216
HLA-B27, n (%)	135 (95.7)	764 (83.7)	*<0.001
†BASDAI	6.44±1.71	6.59±1.68	0.500

†BASDAI in AS patients who exposed to TNF inhibitors.

Multivariate analysis showed that history of uveitis and the presence of HLA-B27 as the final risk factors for the occurrence of uveitis.
Conclusions: Prior uveitis before the diagnosis of AS and HLA-B27 positivity were associated with the occurrence of uveitis. These results can be useful to predict occurrence of uveitis in patients with AS.
Disclosure of Interest: None declared
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FRI0439 PSYCHIATRIC DISORDERS ASSOCIATED WITH ANKYLOSING SPONDYLITIS

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Background: Ankylosing spondylitis (AS) is an inflammatory rheumatic disease characterized by spinal and/or peripheral involvement, enthesitis, dactylitis, and several extra-articular manifestations. Chronic inflammation often leads to reduced spinal mobility and functional disability. The frequency of fatigue, sleep disturbance, and psychological problems has increased in AS patients (1,2).
Objectives: Although there are studies investigating depression and anxiety frequency in AS patients, different psychiatric disorders such as impulsivity, alexithymia and eating disorders have not been evaluated. The aim of this study is to investigate the frequency of different psychiatric disorders in AS patients, and to evaluate the relationship between these disorders with disease activity and functional status.
Methods: Patients with AS (n=70) and healthy controls (n=56) were included in the study. The *Ankylosing Spondylitis Disease Activity Score* (*ASDAS*), Bath Ankylosing Spondylitis Functional Index, Bath Ankylosing Spondylitis Metrology