Conclusion: The diagnostic value of a single diagnostic test in the clinical practice is not fixed and a number of factors including the referral pathway can affect it. Fluctuation of the diagnostic values is especially relevant when the number of positive parameters is low (1-2).

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OP0049

COMPARISON OF BASELINE DISEASE ACTIVITY AND PATIENT (PT)-REPORTED OUTCOMES (PROS) BETWEEN PTS WITH PSORIATIC ARTHRITIS AND AXIAL INVOLVEMENT (AXIAL PSA) AND AXIAL SPONDYLOARTHRITIS (AXIAL SPA) FROM THE CORRONA PSA/SPA REGISTRY

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Background: Although pts with axial PsA and axial SpA share some common clinical characteristics, there are also potential differences that may influence disease assessment and treatment response. Identifying differences between the two pt populations is important for assessment of disease characteristics and severity as well as informing treatment decisions. There has been little comparative characterization of these conditions in a US population.

Objectives: To compare characteristics of pts with axial PsA and axial SpA.

Methods: Pts ≥18 years of age diagnosed with axial PsA or axial SpA at enrollment in the prospective, multicenter, observational Corrona PsA/SpA Registry between March 2013 and August 2020 were included. Enrollment visit demographics, clinical characteristics, treatment history, disease activity measures, and PROs were compared between disease groups. Continuous measures were reported using means and standard deviations; means for disease groups were compared using two-sample *t* tests or Wilcoxon rank sum tests. Categorical measures were reported as frequencies and percentages; frequencies in disease groups were compared using chi-square or Fisher exact tests.

Results: A total of 1044 pts (470 with axial PsA and 574 with axial SpA) were identified (Table). Pts with axial PsA were older with a higher percentage being female vs pts with axial SpA. Time since symptom onset and diagnosis were shorter for pts with axial PsA vs axial SpA (12.0 vs 15.6 years [*P*<0.001] and 6.8 vs 8.3 years [*P*=0.01]). Pts with axial PsA were less likely than pts with axial SpA to have current or historical uveitis (4% vs 14% [*P*<0.001]) or inflammatory bowel disease (5% vs 10% [*P*=0.005]). Prior biologic synthetic disease-modifying antirheumatic drug (bDMARD) and conventional synthetic DMARD use was more prevalent in the axial PsA vs axial SpA groups (64% vs 52% [*P*<0.001]/59% vs 32% [*P*<0.001]), while mean dactylitis (measured by Dactylitis Count) and enthesitis (measured by Spondyloarthritis Research Consortium of Canada [SPARCC] Enthesitis Index) counts were higher (0.4 vs 0.1 [*P*<0.001]/1.7 vs 1.2 [*P*<0.001]). Mean pt-reported pain and spinal pain were lower in pts with axial PsA vs axial SpA (49.4 vs 53.9 [*P*=0.015]/40.8 vs 49.7 [*P*<0.001]) (Figure). The proportion of pts with morning stiffness along with mean fatigue and work impairment scores were similar between disease groups.

Table.

Baseline demographics and clinical characteristics	Axial PsA N=470	Axial SpA N=574	P value
Age (years), mean ± SD	51.6 ± 13.2	47.7 ± 14.0	<0.001
Female, n (%)	265 (57)	248 (44)	<0.001
White, n (%)	428 (94)	507 (91)	0.089
Years since symptom onset, mean ± SD	12.0 ± 11.6	15.6 ± 12.1	<0.001
Years since diagnosis, mean ± SD	6.8 ± 9.0	8.3 ± 10.5	0.010
HLA-B27 positive status, n/n (%)	52/189 (28)	214/295 (73)	<0.001
Abnormal CRP, n (%)	88 (19)	140 (24)	0.033
Uveitis, n (%)	20 (4)	80 (14)	<0.001
IBD, n (%)	25 (5)	59 (10)	0.005
Dactylitis count, mean ± SD	0.4 ± 1.5	0.1 ± 0.7	<0.001
SPARCC enthesitis count, mean ± SD	1.7 ± 2.9	1.2 ± 2.4	<0.001
Morning stiffness, n (%)	439 (95)	537 (96)	0.923
BASDAI (0–10), mean ± SD	4.8 ± 2.5	4.9 ± 2.4	0.463
BASDAI Q2 (0–10): spinal pain, mean ± SD	5.0 ± 2.9	5.7 ± 2.9	<0.001
BASDAI Q3 (0–10): peripheral pain/swelling, mean ± SD	4.5 ± 2.9	4.0 ± 3.1	0.010
Modified BASDAI (0–10), mean ± SD	5.0 ± 2.5	5.4 ± 2.4	0.013
Prior bDMARDs, n (%)	300 (64)	299 (52)	<0.001
Prior csDMARDs, n (%)	275 (59)	181 (32)	<0.001
Prior prednisone use, n (%)	54 (12)	73 (13)	0.611
Prior NSAID use, n (%)	52 (11)	46 (8)	0.115

Conclusion: Findings from this descriptive real-world analysis suggest there may be meaningful differences between pts with axial SpA and axial PsA but future studies are needed to better understand these differences.

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Figure. Patient-reported outcomes*

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OP0050

TWO-YEAR DIAGNOSTIC CONSISTENCY IN PATIENTS WITH CHRONIC BACK PAIN SUSPECTED OF AXIAL SPONDYLOARTHRITIS IN PROTOCOLISED FOLLOW-UP: DATA FROM THE SPONDYLOARTHRITIS CAUGHT EARLY COHORT

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Background: A diagnosis of (early) axial spondyloarthritis (axSpA) is based on pattern recognition, which can be challenging and may change over time.

Objectives: To investigate consistency of diagnosis over two years in patients with chronic back pain (<2 years symptoms) suspected of axSpA.

Methods: In the SPACE cohort, patients over 16 years of age referred to the rheumatology outpatient clinic with chronic back pain (CBP) (≥3 months and <2 years) starting before the age of 45, suspected of axSpA were included. Follow-up was performed only in patients with at least two SpA features or one SpA feature with a positive likelihood ratio ≥6.4¹.

According to protocol, all SpA features as well as MRI and radiographs of the sacroiliac joints were performed at baseline and two years. Physicians were asked to report whether the diagnosis was axSpA or no axSpA at both time-points, for which they had information available on all SpA features and locally

read imaging. Only patients with complete data on diagnosis and imaging at baseline and 2 years were included.

Patients were labelled with a consistent axSpA diagnosis if they had a diagnosis of axSpA at baseline and at two-year follow-up. Those patients whose diagnosis switched from axSpA to no axSpA; or from no axSpA to axSpA were labelled inconsistent axSpA diagnosis.

Results: Over two years, in 295 patients with CBP the diagnostic consistency rate was 84%, of whom 184 patients (62%) had a diagnosis axSpA and 66 (22%) a diagnosis no axSpA at both timepoints. 26 patients changed from axSpA to no axSpA (9%) and 19 patients from no axSpA to axSpA (7%).

The patients who only had an axSpA diagnosis at baseline were more often male and less often HLA-B27 positive compared to the other two groups (Table). Furthermore, both groups with an inconsistent diagnosis had fewer SpA features and a lower level of confidence of the diagnosis (LoC) compared to the group with a consistent diagnosis of axSpA, especially at baseline.

Table 1. Characteristics at baseline and 2-year follow-up of the group with a consistent axSpA diagnosis over 2 years and the groups whose diagnosis (axSpA/no axSpA) changed

	Consistent diagnosis axSpA at baseline and 2yrs (N=184)	Inconsistent diagnosis axSpA at baseline only (N=26)	Inconsistent diagnosis axSpA at 2yrs only (N=19)
	Baseline 2-year	Baseline 2-year	Baseline 2-year
Female	45%	15%	42%
Inflammatory Back Pain	69%	74%	68%
HLA-B27 positive	75%	27%	68%
Sacroiliitis radiographs*	27%	0%	5%
Sacroiliitis MRI*	69%	23%	5%
Number of SpA features, mean (SD)	5 (2)	3 (1)	5 (1)
LoC diagnosis axSpA/no axSpA, mean (SD)	8.1 (2.0)	5.8 (1.7)	6.1 (2.3)

* Based on local reading axSpA, axial Spondyloarthritis; HLA-B27, Human Leucocyte Antigen B27; LoC, Level of Confidence regarding diagnosis; MRI, Magnetic Resonance Imaging; SpA, Spondyloarthritis.

At two-year follow-up the LoC in the group with an axSpA diagnosis at 2 years only was much lower than in the other two groups. In the group that only had an axSpA diagnosis at baseline, the LoC regarding the diagnosis increased most compared to baseline: physicians were more certain of the diagnosis no axSpA at two-year follow-up than they were of the diagnosis axSpA at baseline.

The number of patients with sacroiliitis on radiographs and MRI was much higher in the group with a consistent diagnosis of axSpA. Although the percentage of patients with sacroiliitis on MRI increased in the group with a diagnosis of axSpA at two-year follow-up only, this was still much lower (21%) compared to the patients with a consistent diagnosis (81%). This was in line with a low LoC in this group.

Conclusion: In a cohort of patients with CBP suspected of axSpA the diagnostic consistency rate was high. Interestingly, in the group that only had a diagnosis axSpA at baseline, rheumatologists were more certain about the absence of axSpA at two years than the presence of axSpA at baseline.

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OP0051

LOOKING BEYOND BASDAI TOTAL SCORES: ANALYSIS OF THE BASDAI ON THE BASIS OF SEX

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Background: Females with axial spondyloarthritis (axSpA) average scores on patient reported outcomes (PROs) than males. However, this does not necessarily correlate to worse clinical findings. The Ankylosing Spondylitis Registry of Ireland (ARSI) is a national registry on patients with axSpA in Ireland and a source of epidemiological data.

Objectives: The purpose of this study was to compare the scores of each sex across the individual components of the BASDAI to understand why females report worse scores than males.

Methods: Analysis of the ARSI was performed using IBM SPSS version 26. Patients were analyzed on the basis of gender. Comparison of baseline characteristics and mean BASMI, BASFI, HAQ and ASQoL were tested for significance

using an independent two tailed t-test and a Mann Whitney U test. Mean total BASDAI score and mean score for each component of the BASDAI were compared and tested for significance with the same statistical tests. A chi-squared test for independence was used to determine significance in variation of HLA-B27 status and radiographic findings.

Results: A total of 857 patients were included in the analysis. Patient population was 24.9% (213) female and 75.1% (644) male with a mean age of 45.9 years and mean disease duration of 19.4 years (means: BASDAI 4.02, BASMI 4, BASFI 3.67, HAQ 0.53, ASQoL 6.48). Females had worse BASDAI (4.6 vs 3.83, $p<0.01$), HAQ (0.6 vs 0.51, $p=0.03$) and ASQoL scores (7.62 vs 6.12, $p<0.01$) than males. BASFI scores were worse in females which did not reach significance (3.89 vs 3.63, $p=0.26$). However, females had significantly better BASMI scores than males (3.51 vs 4.16, $p<0.01$). Within the BASDAI, females scored significantly worse than males across all components (Fatigue: 5.56 vs 4.51, $p<0.01$; Spinal pain: 5.51 vs 4.63, $p<0.01$; Other pain: 3.82 vs 3.19, $p=0.01$; Discomfort: 4.05 vs 3.29, $p<0.01$; EMS: 4.55 vs 3.94, $p=0.01$), however duration of EMS did not reach significance (3.54 vs 3.12, $p=0.07$) (graph 1). Within the BASDAI, females recorded highest mean scores for fatigue (5.56), while males recorded highest mean scores for spinal pain (4.63). Lowest mean scores for both genders was for EMS duration (3.54 vs 3.12). Ranking of the BASDAI components by mean scores show similarity in the ranking of discomfort, EMS, other pain and EMS duration (Table 1).

Graph 1. Breakdown of BASDAI scores in Females compared to Males

Table 1. Ranking in order of severity by mean score

	Females	Males
1 -most severe	Fatigue	Spinal pain
2	Spinal Pain	Fatigue
3	EMS	EMS
4	Discomfort	Discomfort
5	Other pain	Other pain
6 -least severe	EMS duration	EMS duration

Conclusion: AxSpA females have consistently worse PROs but have better spinal mobility than males. Despite females recording worse BASDAI scores than males, the pattern of active disease is similar in 4 of the 6 components of the BASDAI. However, fatigue is the most problematic symptom in females with active axSpA while spinal pain is the most problematic symptom for males. This variation by gender should be kept in consideration when evaluating a patient with suspected active axSpA.

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OP0052

FACTORS ASSOCIATED WITH REMISSION AT 5 YEARS OF FOLLOW-UP IN EARLY ONSET AXIAL SPONDYLOARTHRITIS: RESULTS FROM THE DESIR COHORT

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