nr-axSpA stratified by gender, using standardized clinical tools (including patient-reported outcomes (P-ROs)) and C-reactive protein (CRP) level as a biomarker for inflammation.

Methods: Ax-SpA patients were included prospectively and underwent an examination program at one visit. We used ASAS criteria and the modified New Yorker criteria for classification. Information on demography and PROs was obtained. A trained physician performed a clinical examination, and BASMI and the The Spondyloarthritis Research Consortium of Canada Enthesitis Index (SPARCC) was used to enthesitis count. Chi-square and t-tests were used for categorical and continuous variables respectively to test the null hypothesis.

Results: Eighty patients with ax-SpA were included. Table 1 shows the results (mean ± SD or relative frequency) for the comparison of demographic and disease characteristics between clinical subgroups.

	Non-radiographic axSpA males n= 20	AS males n=23	P-value	Non-radiographic axSpA females n= 29	AS females n= 8	P-value
Mean age, years (S.D.)	41.5 ± 15.4	50.6 ± 9.9	0.03	44.0 ± 11.1	47.8 ± 17.3	0.46
HLA-B27 pos. (%)	11 (55)	21 (91)	0.012	13 (45)	8 (100)	0.013
Peripheral arthritis (%)	9 (45)	12 (52)	0.98	14 (48)	7 (88)	0.10
Mean BASDAI (S.D.)	2.5 ± 2.1	2.9 ± 1.9	0.52	4.7 ± 2.2	2.8 ± 2.0	0.043
Mean BASFI (S.D)	2.1 ± 2.2	2.6 ± 2.2	0.53	3.8 ± 2.1	2.4 ± 2.7	0.12
Mean BASMI (S.D)	1.2 ± 1.1	2.7 ± 1.6	0.0012	1.3 ± 1.2	1.5 ± 1.9	0.78
Mean CRP, mg/L (S.D)	6.9 ± 9.6	10.6 ± 17.1	0.20	2.6 ± 2.1	10.6 ± 15.5	<0.001
Mean Pain, VAS 0-100 mm, (S.D)	27.2 ± 23.0	28.6 ± 23.4	0.29	44.9 ± 23.9	25.9 ± 20.1	0.013
Anterior uveitis (%)	3 (15)	10 (43)	0.05	5 (17)	3 (38)	0.33
Psoriasis (%)	8 (40)	9 (39)	0.97	13 (45)	1 (13)	0.12
IBD (%)	3 (15)	3 (13)	0.61	6 (21)	0 (0)	0.31
Mean SPARCC score (entesitis)	1.2 ± 1.3	1.0 ± 1.4	0.63	2.0 ± 1.9	0.8 ± 1.5	0.0092

Conclusions: For the PROs, BASDAI and pain were higher in females diagnosed with nr-axSpA, and the CRP was significantly lower in this group. Peripheral and EAMs were slightly equally prevalent in AS and nr-axSpA in men and women except for uveitis, which is slightly more prevalent in AS. Our data show that AS patients were more frequently male than nr-axSpA patients. These results are in line with previous studies showing that male patients with axial SpA have more structural damage on radiographs than female patients. Among women, this study indicate that pain is more pronounced in non-radiographic axSpA than in AS, potentially revealing that chronic widespread pain (e.g. fibromyalgia) might interfere with the diagnostic accuracy of the non-radiographic axSpA subgroup. However, despite the absence of radiographic changes, patients with nr-axSpA have a burden of illness, with self-reported disease activity and functional impairments comparable with those of patients with structural changes consistent with AS.

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FRI0461 | **MUSCLE WASTING IN MALE TNF-α BLOCKER NAÏVE ANKYLOSING SPONDYLITIS PATIENTS: A COMPARISON OF GENDER DIFFERENCES IN BODY COMPOSITION WITH DUAL-ENERGY X-RAY ABSORPTIOMETRY**

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Background: Female Ankylosing Spondylitis (AS) patients have different disease characteristics compared to males. This might be explained by differences in body composition (BC), as women have higher total body fat mass, and adipose tissue can produce adipokines and participate in inflammatory and immunological processes.

Objectives: To assess gender differences in BC measured by Dual-Energy X-ray Absorptiometry (DXA) in a cohort of AS patients naïve to TNF-α blockers, and compare the BC with the reference population.

Methods: AS patients (Modified New York Criteria), 18 years old or older, who had a whole body DXA analysis before TNF-α blockers were included. Demographic information and disease activity measures (ASDAS and BASDAI) were reported. Fat Mass (FM) was reported as total FM (sum of trunk, arms, legs, and head), BF% (ratio FM/Total body mass), and Fat Mass Index (FMI= FM kg/height m^2).

Fat Free Mass (FFM), calculated as lean mass + bone mineral content, and its index (FFMI kg/m^2) were reported. BF%, FMI, and FFMI percentiles, according to the reference population tables, stratified by age and gender, were also reported.

Results: Seventy consecutive patients were included, 60% were men. Baseline demographic characteristics were similar in men and women. Women had significantly higher BF% and FMI, and lower FFMI as absolute values (table 1). The FFMI percentile was markedly low in men (31.7%) (Figure 1). After multivariate analysis, an ASDAS-CRP >3.5 was related with lower FFM in the whole group (β-coefficient -5.1, 95% CI -10.2 to -0.1, P=0.047). ASDAS >3.5 was related to lower fat content in men and to higher fat content in women. The same relationships were found for BASDAI ≥4.

Table 1. Body composition characteristics

	All (N=70)	Male (N=42)	Female (N=28)	P
Age (median years, IQR)	42 (16)	44.2 (15.2)	40.7 (17.6)	NS
BMI (median, IQR)	25.6 (5)	25.9 (4.8)	24.2 (9)	NS
Underweight (%)	0	0	0	–
Normal (%)	48.6	45.2	53.6	NS
Overweight (%)	35.7	47.6	17.9	0.011
Obese (%)	15.7	7.1	28.6	0.021
Fat Mass, kg (mean, SD)	26 (9.3)	23.9 (8.7)	29.2 (9.6)	0.018
Fat Free Mass, kg (mean, SD)	51.1 (9.9)	56.8 (7)	42.5 (7.1)	<0.001
Body Fat % (mean, SD)	33.3 (8.9)	28.9 (7.3)	40 (6.7)	<0.001
Fat Mass Index (median, IQR)	8.5 (3.6)	8 (4)	9.7 (6)	0.001
Fat Free Mass Index (median, IQR)	17 (2.5)	17.7 (1.8)	15.1 (1.8)	<0.001

BMI = Body Mass Index, NS = not significant.

Figure 1: FMI, BF% and FFMI percentiles according to reference population tables
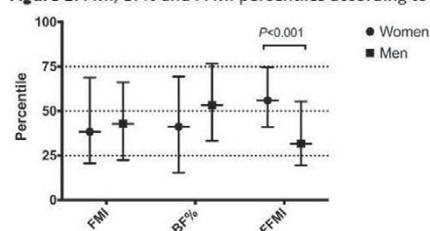
FMI= Fat Mass Index, BF%= Body fat percentage, FFMI= Fat Free Mass Index. Dot lines represent 25th, 50th and 75th percentile of reference population.

Conclusions: Muscle wasting, measured as low FFMI compared to the reference population, was found in male TNF-α blocker naïve AS patients, especially in those with active disease. Women had higher volumes of body fat than men, but near the median of the reference population. The relationships between fat content and disease activity support the complex association between adipose tissue and inflammation.

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FRI0462 | **THE PISTOL-GRIP DEFORMITY IS MORE FREQUENT IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS**

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Background: Femoroacetabular impingement (FAI) is characterized by early pathologic contact of the proximal femur with the acetabulum. Pincer impingement is the acetabular cause of FAI.Whereas cam deformity seen as a flattening of the anterior contour of the head/neck junction or an osseous hump leading a decreased femoral head/neck offset. Patient with FAI presents with a hip or a trochanteric painusually in the sitting position or during or after activity. It might also be an important cause of hip osteoarthritis (OA).

Objectives: Therefore in this study we evaluated the frequency of pistol-grip deformity (PGD), described as the most characteristic feature of cam-type FAI, in axial spondyloarthritis (axSpA) patients as a potential alternative cause of hip or trochanteric pain.

Methods: A total 180 patients (107 [59%] male, mean age 41.9±12.8 years) with axSpA according to ASAS criteria and 198 patients (120 [61%] male, mean age 40.5±14.8 years) admitted to the emergency department (mostly due to trauma) and who had pelvic X-ray were included in the study.Patients with hip OA, hip prosthesis, acetabular protrusion or who have radiographs taken improper technique were excluded. An experienced radiologist assessed all anteroposterior pelvic radiographs. PGD was determined by demonstration of spherical or non spherical shape of femur head on AP pelvic radiography.

Results: The axSpA group consists 135 ankylosing spondylitis and 45 non-radiographic axSpA patients. The mean duration of symptoms was 13.8±11.3