Conclusion: One out of five patients with axSpA in Spain were not diagnosed by rheumatologists. Patients diagnosed by non-rheumatologists were more likely male and older, suggesting that the suspicion of axSpA in females and younger patients is low among these healthcare professionals. Beside the rheumatologist, it is essential to educate other HCPs on axSpA diagnostic criteria in order to facilitate correct referrals to rheumatologists and shorten the time to diagnosis and effective treatment.

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POS0995

EFFECT OF SEX IN CO-EXISTENT FIBROMYALGIA AND ENTHESITIS IN SPONDYLOARTHRITIS: ANCILLARY ANALYSIS OF THE ASAS-PerSpA STUDY

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Background: Enthesitis is a common feature of axial spondyloarthritis (axSpA) and psoriatic arthritis (PsA). Up to 25% of individuals with axSpA and PsA have a co-existing diagnosis of fibromyalgia syndrome (FMS). The anatomic overlap between tender points in FMS and sites of entheses is a challenge when differentiating between active SpA and FMS. Literature investigating the co-existence of enthesitis and FMS in individuals with SpA is sparse, in particular the effect of sex. The ASAS Peripheral involvement in Spondyloarthritis (PerSpA) study aims to characterize peripheral musculoskeletal in individuals with SpA across the world.

Objectives: (1) To characterise the co-existence of enthesitis and FMS in individuals with SpA.

(2) To explore the effect of sex on the presence of FMS and enthesitis.

Methods: All individuals from the cross-sectional multinational ASAS-PerSpA study with a diagnosis of axSpA, peripheral SpA (pSpA) or PsA according to their rheumatologist were included. The Fibromyalgia Rapid Screening Tool (FIRST) was used to make the diagnosis of FMS. The baseline descriptive and clinical differences between sexes were performed using T-tests and crosstabs. Sex-stratified comparisons within the following categories were conducted using chi-square analysis and ANOVA as appropriate: (1) enthesitis & fibromyalgia; (2) enthesitis only; (3) fibromyalgia only; (4) neither.

Results: Baseline characteristics of the 4465 included patients are outlined in Table 1, stratified by sex. Enthesitis occurred in 44% (n=1984) of the population and was more common in females than males (48% vs 42%, p<0.01). The majority affected had intermittent episodes of enthesitis (55%, n=1088), with the Achilles tendon and plantar fascia the two most common sites in both sexes. Enthesitis was more often confirmed on imaging in females than males (44% vs 35%, p<0.01). The most common treatment for enthesitis was non-steroidal anti-inflammatories (97%, n=1318), with no difference when stratified by sex. FMS occurred in 19% (n=775) of patients and was more common in females than males (28% vs 13%, p<0.01).

Table 1. Participant characteristics, stratified by sex. Values are mean (SD), median (25th, 75th) or n (%). P-values are independent T-tests or Mann-Whitney as appropriate.

Variable	Total	Male	Female	P value
N	4465	2724	1741	
Age, years	45 (14)	43 (14)	46 (13)	<0.01
Disease duration, years	11 (6, 20)	12 (6, 21)	11 (5, 19)	0.01
Delay to diagnosis, years	3 (1, 9)	3 (1, 9)	3 (1, 10)	0.11
HLA-B27 positive	2066 (66)	1457 (73)	609 (54)	<0.01
Radiographic sacroiliitis	2517 (61)	1788 (70)	729 (46)	<0.01
Sacroiliitis on MRI	1817 (65)	1128 (68)	689 (60)	<0.01
axSpA ASAS criteria	2910 (65)	1953 (72)	957 (55)	<0.01
pSpA ASAS criteria	555 (12)	250 (9)	305 (18)	<0.01
CASPAR criteria	1043 (23)	508 (19)	535 (31)	<0.01
BMI, kg/m ²	26 (23, 29)	26 (23, 29)	26 (23, 30)	0.24
Axial involvement	3428 (76.8)	2243 (82.3)	1185 (68.1)	<0.01
Peripheral involvement	2541 (56.9)	1404 (51.5)	1137 (65.3)	<0.01
Enthesitis	1984 (44.4)	1149 (42.2)	835 (48.0)	<0.01
Uveitis	738 (17)	482 (18)	256 (15)	0.01
Psoriasis	1212 (27)	615 (23)	597 (34)	<0.01
Inflammatory bowel disease	275 (6)	150 (6)	125 (7)	0.02

Enthesitis and FMS occurred together in 10% of the cohort, was more common in women than men (see Figure 1) and was associated with a significantly (p<0.01) longer delay to diagnosis of 1.8 years and a higher BMI of 2.1 kg/m² than people with enthesitis only. Objective confirmation of enthesitis was similar in those with and without FMS (38% vs 38%, p=0.92).

The presence of FMS added to the burden of disease in those with enthesitis as assessed by BASDAI (6.4 vs 3.6, p<0.01) and ASDAS-CRP (3.5 vs 2.5, p<0.01), with no difference between sexes (p>0.05).

Conclusion: In this large cross-sectional multinational analysis, FMS affected 19% of individuals with SpA. The co-existence of enthesitis and FMS occurred in 16% of females compared to 6% of males. The presence of FMS increased the burden of disease in those with enthesitis, as assessed by BASDAI and ASDAS-CRP, with no difference between men and women.

Figure 1: Prevalence of co-existent enthesitis & FMS in individuals with SpA, stratified by sex. P<0.01 denotes significant difference between sex.

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POS0996

SIX-YEAR RESULTS FROM THE ESPERANZA COHORT: EVALUATION OF CLINICAL FEATURES, DISEASE ACTIVITY MEASURES AND TREATMENT ASPECTS IN AXIAL AND PERIPHERAL EARLY SPONDYLOARTHRITIS

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Background: Esperanza was a multicenter national health program developed to facilitate an early diagnosis of patients with Spondyloarthritis (SpA) in Spain.

Objectives: To compare the clinical evolution of patients with axial SpA (axSpA) and peripheral SpA (pSpA) included in this program.

Methods: Patients from the Esperanza cohort fulfilling ASAS criteria for axSpA or pSpA and completed the 6-year follow-up were included. Patients were classified according to the predominant symptom. In case of having axSpA and pSpA, they were classified as axSpA. Clinical features, disease activity and treatment aspects at baseline and 6-year visit were evaluated.

Results: From 775 patients recruited at baseline, 6-year follow-up data from 178 (83.5%) fulfilling ASAS criteria at the final visit were available: 133 (74.7%) for axSpA and 45 for pSpA (25.3%). 118 (66.3%) were males (50.6% with axSpA and 62.2% pSpA, $p=0.4$). Patients with axSpA had more frequently positive HLA-B27 (90.5%) vs. (9.5%), $p<0.001$. Follow-up clinical features are shown in Table 1. At the final visit, both axSpA and pSpA presented an improvement in clinical symptoms, disease activity (CRP, BASDAI, ASDAS and VAS-pt) and quality of life (ASQoL). A worsening of mobility (BASMI) was observed in both groups. The prevalence of uveitis, psoriasis and inflammatory bowel disease (IBD) at baseline was 10.7%, 18% and 5.6%, respectively. At the 6-year visit, the cumulative prevalence (CP) was 14% for uveitis (16.5% in axSpA and 6.7% in pSpA), 22.5% for psoriasis (12.8% in axSpA and 51.1% in pSpA) and 7.9% for IBD (5.3% in axSpA and 15.6% in pSpA). Most of the patients were prescribed NSAIDs at baseline and more patients maintained this treatment at the 6-year visit in axSpA compared with pSpA (96.9% vs 87.5%, $p=0.02$). At the final visit, a higher percentage with pSpA received csDMARDs in comparison with axSpA (81% vs. 35.7%, $p<0.001$). Sixty (44.4%) patients received biologic therapy at the final visit and no differences were observed in their prescription: 43% in axSpA and 48.6% in pSpA ($p=0.6$).

Conclusion: The early diagnosis of recent-onset SpA achieves a significant improvement in clinical features, disease activity and quality of life in patients with axSpA and pSpA after 6 years of follow-up. Although previous publications revealed a low radiographic progression in this cohort¹, the worsening of BASMI must aware clinicians of possible evolutive structural damage.

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- [1] Fernández-Carballido et al. RMD Open. 2020 Sep;6(2):e001345

Table 1. Follow-up clinical features at baseline and 6-year visit in patients with axSpA and pSpA.

	Baseline visit			Six-year visit				
	1 AxSpA n=133	2 pSpA n=45	P value 1-2	3 AxSpA n=133	4 pSpA n=45	P value 3-4	P value 1-3	P value 2-4
Age (years), mean $\pm$ SD	33.2 $\pm$ 7.5	35.3 $\pm$ 7	0.09	39.6 $\pm$ 9.6	40.9 $\pm$ 6.9	0.107	<0.001	<0.001
Back pain, n (%)	125 (94%)	21 (46.7%)	<0.001	40 (30%)	6 (13.3%)	0.083	<0.001	0.002
Arthritis, n (%)	32 (24.1%)	40 (89%)	<0.001	8 (6%)	10 (22.2%)	0.006	<0.001	0.061
Enthesitis, n (%)	46 (34.6%)	23 (51.1%)	0.11	10 (7.5%)	1 (2.2%)	0.39	<0.001	<0.001
Dactylitis, n (%)	13 (9.8%)	15 (33.3%)	0.01	1 (0.8%)	2 (4.4%)	0.24	<0.001	<0.001
CP uveitis, n (%)	17 (12.8%)	2 (4.4%)	0.28	22(16.5%)	3 (6.7%)	0.5	<0.001	<0.001
CP Psoriasis, n (%)	11 (8.3%)	21 (46.7%)	<0.001	17(12.8%)	23(51.1%)	0.02	<0.001	<0.001
CP IBD, n (%)	4 (3%)	6 (13.3%)	0.029	7 (5.3%)	7 (15.6%)	0.69	<0.001	<0.001
SJC (0-68), mean $\pm$ SD	0.2 $\pm$ 0.9	2.1 $\pm$ 2.8	<0.001	0.2 $\pm$ 1.1	0.5 $\pm$ 1.1	0.11	0.62	<0.001
CRP (mg/L), mean $\pm$ SD	8.3 $\pm$ 11.6	8.9 $\pm$ 12.7	0.77	3.6 $\pm$ 4.9	5.1 $\pm$ 7.7	0.26	<0.001	0.045
BASDAI (0-10), mean $\pm$ SD	4 $\pm$ 2.2	4.2 $\pm$ 2.4	0.59	2.4 $\pm$ 2.1	2.3 $\pm$ 2.1	0.67	<0.001	0.001
BASFI (0-10), mean $\pm$ SD	2.4 $\pm$ 2.2	2.4 $\pm$ 2.4	0.94	2.1 $\pm$ 2.2	1.6 $\pm$ 1.9	0.2	0.17	0.289
BASDAS, mean $\pm$ SD	2.3 $\pm$ 1.1	2.5 $\pm$ 1.3	0.264	1.6 $\pm$ 1.4	1.6 $\pm$ 0.9	0.690	<0.001	0.001
BASMI, mean $\pm$ SD	1.4 $\pm$ 1.3	1.2 $\pm$ 0.9	0.43	1.9 $\pm$ 1	1.6 $\pm$ 0.7	0.19	<0.001	0.002
VAS (0-10) physician, mean $\pm$ SD	3.1 $\pm$ 2.4	2.9 $\pm$ 2.4	0.61	1.8 $\pm$ 1.8	1.8 $\pm$ 1.6	0.92	<0.001	0.04
VAS (0-10) patient, mean $\pm$ SD	4.1 $\pm$ 2.7	4.8 $\pm$ 3	0.23	2.8 $\pm$ 2.3	2.4 $\pm$ 2.2	0.32	<0.001	0.03
ASQoL, mean $\pm$ SD	5.9 $\pm$ 4.7	6.4 $\pm$ 5.6	0.6	2.9 $\pm$ 3.8	3.9 $\pm$ 4.9	0.38	<0.001	0.008

Data are expressed as mean $\pm$ standard deviation (SD) for quantitative variables and number (percentage) for qualitative variables. Abbreviations: AxSpA, axial spondyloarthritis. pSpA, peripheral spondyloarthritis. SD, (standard deviation). Impr, improvement. CP, cumulative prevalence. IBD: Inflammatory Bowel Disease. CRP: C-Reactive Protein. SJC: Swollen Joint Count. VAS: Visual Analogic Scale. BASDAI: Bath Ankylosing Spondylitis Disease Activity Index. BASFI: Bath Ankylosing Spondylitis Functional Index. ASQoL: Ankylosing Spondylitis quality of life. BASDAS: BASDAI-based ASDAS, similar to the ASDAS-CRP but uses only the BASDAI and CRP.

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POS0997

PERFORMANCE OF ASDAS VERSUS BASDAI DURING PREGNANCY

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Background: Disease activity in patients with axial spondyloarthritis (axSpA) can be measured by BASDAI and ASDAS. Both instruments were validated in non-pregnant patients with cutoff values for active diseases. In pregnant women with axSpA, however, BASDAI and ASDAS scores might be biased by signs and symptoms of pregnancy itself.

Objectives: To compare the performance of ASDAS and BASDAI during pregnancy

Methods: Patients with axSpA were prospectively followed before pregnancy, at each trimester and 6 to 12 weeks postpartum. Disease activity was assessed by BASDAI, ASDAS, patient global assessment (PGA) and physician global assessment (PhGA). We analysed the disease course throughout pregnancy and postpartum, the correlation between BASDAI and ASDAS and the agreement in the classification of active disease. We applied receiver operating curves (ROC) to evaluate the cut-off points in pregnant patients.

Results: The study involved 40 women with axSpA. Disease activity scores were higher during pregnancy (median ASDAS score: 2.5, median BASDAI score 3.1) than during a non-pregnant state (median ASDAS score 2.3, median BASDAI score 2.1). Median BASDAI scores were highest at the first trimester, median ASDAS scores were highest at the second trimester. ASDAS strongly correlated with BASDAI, both in the pregnant and in the non-pregnant state ($r=0.796$, $r=0.727$). However, there was a discordance when analysing the proportion of patients with high disease activity using the common cut-off values (ASDAS >2.1 , BASDAS >4). More patients had high disease activity when measured by ASDAS (1st trimester (T): 63%, 2nd T: 76%, 3rd T: 61%) compared to those measured by BASDAI (1st T: 43%, 2nd T: 39%, 3rd T: 34%). The κ coefficient showed only fair agreement ($\kappa=0.39$). ROC analysis among pregnant patients showed that the cut-off point estimation for high disease activity using ASDAS >2.75 corresponded to a BASDAI >4 . The ASDAS >2.75 cut-off for high disease activity had a good agreement with BASDAI >4 ($\kappa=0.657$). When ASDAS >2.75 was applied in pregnant women with axSpA, about 40% experienced high disease activity.

Conclusion: During pregnancy, the majority of women with axSpA experience ongoing disease activity. However, the cut-off values defining low and high disease activity might differ between pregnant and non-pregnant individuals since BASDAI and ASDAS are biased by pregnancy related symptoms like fatigue and mechanical back pain.

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POS0998

SPONDYLOARTHRITIS AND SLEEP DISORDERS

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Background: Spondyloarthropathies (SpA) are a group of chronic and progressive diseases, characterized in particular by a progressive stiffening of the spine, spreading to neighboring joints or to certain tissues, which could lead in the long term to progressive stiffening and functional impairment. This condition can cause insomnia problems and impaired sleep quality.

Objectives: To assess the impact of SpA on the quality of sleep.

Methods: This is a retrospective study over a period of 4 years from January 2015 to December 2019, including all the medical records of patients with SpA followed in the Department of Rheumatology of the University Hospital of Ibn Rochd, Casablanca. We evaluated for each patient two validated scores: the Epworth somnolence scale rated from 0 to 24, and the Pittsburgh sleep score rated from 0 to 21 with 7 components. Patients with a psychiatric history or who were followed up for neurological pathologies were excluded.

Results: 178 patients were included. 60.67% were men with an average age of 36.32 years (14-68 years). 45.01% had axial SpA, 29.77% had psoriatic arthritis, and 25.22% were followed for SpA associated with inflammatory bowel disease. 45% had associated comorbidities: there were 18 diabetics and 34 hypertensive, 16.58% were smokers. Clinically, 85.42% presented a back pain initially on examination, 55% presented a polyarthralgia, and 39.88% an oligoarthritis. 63% had radiological sacroiliitis, and 35.14% had bilateral coxitis. 13.48% had a positive HLA B27 and 58.89% had a