and multivariate comparative analyisis was performed, in order to define which variables were related to the negativity or positivity of HLAB27.
Results: Data of 1235 AS pacients were analysed. Of them 1029 (83.3%) were HLAB27 positive and 206 (17.7%) HLAB27 negative. 924 (74.8%) were men. AS patients with HLAB27+ presented significantly more familiar history of spondyloarhritis (p=0.002), were younger (p=0.012) and had earlier disease onset and disease diagnosis (p<0.001), with a longer disease duration (p=0.037) and a trend to a higher percentage of uveitis compared to those with HLAB27-. On the other hand, AS patients with HLAB27- also presented significantly more peripheral arthritis (p=0.0022), dactylitis (p=0.001) and extraarticular manifestations (psoriasis, palmoplantar pustulosis, inflammatory bowel disease (IBD) and balanitis (p<0.001)) compared with those of HLAB27+. AS patients with HLAB27- also presented higher scores of BASDAI and BASFI (p=0.047 and p=0.005 respectively). The study didn't show differences between both groups of patients regarding sex distribution, axial manifestations, enthesitis nor radiological damage (assessed by BASRI). In the multivariate analysis, the family history of spondyloarthritis (OR 2.10, IC95% 1.27–3.49, p=0.004), the age at diagnosis (OR 0.97, IC95% 0.96–0.98, p<0.001), the presence of dactylitis (OR 0.16, IC95% 0.05–0.56, p=0.004), extraarticular manifestation specially IBD (OR 0.22, IC95% 0.12–0.40, p<0.001) and peripheral arthritis (OR 0.53, IC95% 0.32–0.89, p=0.016) were the variables independently associated with the presence of HLAB27.
Conclusions: The presence of HLAB27 in AS patients is associated to an earlier disease onset, a higher frequency of familiar history of spondyloarthritis, and a lower frequency of dactylitis, extraarticular manifestations and peripheral arthritis.
Disclosure of Interest: None declared
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SAT0411 CORRELATION BETWEEN DISEASE ACTIVITY SCORES AND QUALITY OF LIFE IN SPONDYLOARTHRITIS

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Background: Spondyloarthritis (SpA) is a group of chronic inflammatory rheumatism and it is known to be one of the leading causes of disability.
Objectives: This study aimed to investigate the quality of life and the psychological disorders (depression, anxiety and insomnia) in patients with SpA.
Methods: A total of 60 patients were included with the diagnosis of SpA meeting the Amor and New York modified criteria, in a prospective study. In a questionnaire, the characteristics of the disease and sociodemographic patient were collected. Also psychiatric assessment was done using the insomnia severity index score (ISI) and the Hospital Anxiety and Depression scale (HAD). In addition, patients answered to the Ankylosing Spondylitis Quality of Life (ASQoL) questionnaire and the SF-12.
Results: The sex-ratio (men/women) was 3.28 (46/14), the average age was 37.95 years (18–70). The average duration of disease progression was 11.5 years (1–30). The mean value of the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) was 5.11 and the Bath Ankylosing Spondylitis Functional Index (BASFI) was 5.22. Uveitis was reported in 11.7% of patients, osteoporosis in 35%, enthesitis in 36.7% and coxitis in 36.7%. 78.3% of patients received NSIAD and 30% were treated with biotheraby. On the psychological level, 25% of patients had an anxiety, 20% had depression. According to the ISI, 35% of patients had sub threshold insomnia, 20% had moderate insomnia and 10% had severe insomnia. The mean value of the ASQoL was 9 (0–16). The mean value of the physical health was 37.13 (19.34–60.41) and for the mental health was 41.65 (14.9–60.35). A significant positive correlation was found between the disease activity and the ASQoL (p=0.000), the physical health (p=0.000) and the mental health (p=0.002). Also, we found a significant positive correlation between the BASDAI and depression (p=0.01) and insomnia (p=0.001).
Conclusions: SpA is a chronic inflammatory disease that contributes to significant physical disability and decreased quality of life in a significant number of patients. The treatment of those patients must consider the improvement of quality of life, as part of a global approach.
Disclosure of Interest: None declared
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SAT0412 ASSOCIATION BETWEEN SMOKING WITH SPINAL LEVEL OF STIFFNESS AND FUNCTIONAL LIMITATION IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS: RESULTS FROM THE SPANISH ATLAS

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Background: Smoking has been associated with greater disease activity and radiographic progression in patients with Axial Spondyloarthritis (ax-SpA). In addition, radiographic damage has been linked to greater functional limitation. However, clarification is still being sought as to whether or not this association exists.
Objectives: To investigate the association between smoking and both the area of spinal stiffness and functional limitation in patients with ax-SpA.
Methods: A sample of 680 patients diagnosed with ax-SpA was interviewed during 2016 as part of the Spanish Atlas, which aims to promote early referral and improve healthcare and the use of effective treatments in patients with ax-SpA. Tobacco consumption was recorded as: Smoker (62.4%), Occasional Smoker (8.9%) and Non-Smoker (28.7%). Spinal stiffness was assessed in the three different vertebral areas: cervical, dorsal and lumbar.
To determine de degree of functional limitation we used a composed index which includes the sum of the degree of limitation in the 18 daily activities well established (dressing, grooming, bathing, tying shoelaces, moving around the home, stairs, getting to/out of bed, toilet, shopping, preparing meals, eating, cleaning, walking, using public transportation, going to the doctor, driving, physical exercise, sexual relations) using an ordinal variable (0=none, 1=little, 2=some and 3=moderate). A descriptive analysis was used to compare the level of stiffness (chi-squared test) and the mean degree of limitation (Kruskal-Wallis test) in the different groups of smokers consumptions. Regression analysis was also used to assess the relation between smoking and degree of limitation (0–54).
Results: 53% were females, mean age 46 years and 77.1% were HLA-B27+. The percentage of patients with stiffness in the lumbar region was significantly higher in habitual/occasional smokers than in non-smokers (89.0%, 93.8%, 83.5% respectively; p<0.01) (Table). The mean degree of functional limitation increased with tobacco consumption, although this difference was not statistically significant (47.9±12.1 vs. 45.1±11.5 vs. 44.8±13.7 respectively; p=0.2). However, regression analysis showed a statistically significant correlation between smoking and functional limitation (r=0.096; p=0.02).

Relationship between tobacco consumption and spinal stiffness levels in patients with ax-SpA

	Smoker	Occasional smoker	Non smoker	*P*	χ^2
Cervical stiffness	84.2%	77.1%	73.1%	0.171	9.044
Dorsal stiffness	76.0%	76.6%	72.4%	0.408	6.141
Lumbar stiffness	89.0%	93.8%	83.5%	0.002	20.518

Source: Spanish Atlas.

Conclusions: Smoking in patients with ax SpA is associated to greater stiffness in the lumbar region, but is not related to stiffness in the cervical or dorsal regions. Additionally, smoking is associated to the degree of functional limitation in these patients.
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SAT0413 INFECTIOUS PROFILE IN A TUBERCULOSIS-ENDEMIC POPULATION WITH SPONDYLOARTHROPATHIES

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Background: Screening latent tuberculosis (TB) and other opportunistic infections in patients with spondyloarthropathies (SpA) with biologic or immunosuppression therapy is important in highly endemic population (1).
Objectives: To assess the prevalence of latent and active TB, hepatitis B, hepatitis C, HIV and Syphilis in a colombian cohort with SpA, as well as evaluate differences between treatments.
Methods: A cross-sectional study was conducted in 621 patients with SpAs, in whom TB, hepatitis B, hepatitis C, HIV and syphilis screening was analyzed based on type of diagnosis. Differences among immunomodulatory therapies were assessed. Statistical association was examined by means of Chi-square tests, Mann-Whitney test, and logistic regression analyses.
Results: The prevalence of latent and active TB in this cohort were 63,1%, and 2,9%, respectively. Significant differences were found in proportions of latent and active TB among types of SpAs, indicating a positive association with AS. A high

Table 1. Infectious profile in colombian patients with SpAs

	All N=621		AS N=340		PsA N=222		Und SpA N=59		p-value
	N	%	N	%	N	%	N	%	
Latent TB	251/398	63,1	156/244	63,9	76/126	60,3	19/28	67,9	0,009
Positive TST before immunotherapy	175/398	44	98/244	40,2	64/126	50,8	13/28	46,4	0,64
TST conversion during immunotherapy	76/398	19,1	59/244	24,2	13/126	10,3	4/28	14,3	<.0001
Active TB	18	2,9	12	3,5	4	1,8	2	3,4	0,03
Latent TB conversion to active TB	7	1,1	6	1,8	1	0,4	0	–	0,04
Active TB during immunotherapy	11	1,8	10	2,9	1	0,4	0	–	0,008
Hepatitis B	11/400	2,8	4/241	1,7	6/128	4,7	1/31	3,2	0,32
Hepatitis C	2/400	0,5	2/241	0,8	0/128	–	0/31	–	0,61
VDRL test	2/285	0,7	1/167	0,6	1/94	1,1	0/24	–	0,38
HIV	3/330	0,9	2/197	1	0/111	–	1/22	4,5	0,14

Ankylosing spondylitis (AS), psoriatic arthritis (PsA), undifferentiated spondyloarthritis (Und SpA), tuberculin skin test (TST).

proportion of TST conversion during immunotherapy was found. According to the immunomodulatory therapy, no differences were found among latent TB patients, active TB disease and no infection with the use of conventional DMARD therapy, but a positive association between latent TB and the use of biologic therapy was recognized. Low prevalences of opportunistic infections (i.e., Hepatitis B and C, syphilis and HIV) were found in this cohort, dispite the frequent use of biologic therapy.

Conclusions: In a TB-endemic population, higher prevalences of latent and active TB were found in patients with SpAs, when compared to the general population. Complete infectious screening is mandatory in patients under consideration of biologic agents, and close follow-up must be done to recognize TST conversion.

References:

[1] Pérez-Díaz CE, Uribe-Pardo E, Calixto OJ, Faccini-Martínez ÁA, Rodriguez-Morales AJ. Infections with biological therapy: strategies for risk minimization in tropical and developing countries. J Infect Dev Ctries. 2016;10(12).

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SAT0414 DIFFERENCES IN CLINICAL PRESENTATION BY GENDER IN COLOMBIAN PATIENTS WITH SPONDYLOARTHROPATHIES

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Background: Spondyloarthropathies (SpAs) are a group of auto-inflammatory diseases, with overlapping symptoms, that include ankylosing spondylitis (AS), psoriatic arthritis (PsA), undifferentiated spondyloarthritis (Und SpA), enteropathic arthritis, and reactive arthritis (1). Historically, SpAs have been viewed as diseases that predominantly affected men (2).

Objectives: To analyze the influence of gender on disease patterns and therapeutic approach in a large cohort of Colombian patients with SpAs.

Methods: A cross-sectional study was conducted in 621 patients with SpAs, in whom clinical and therapeutic characteristics were analyzed based on gender. Statistical association was examined by means of Chi-square tests, Mann-Whitney test, and logistic regression analyses.

Results: The male-to-female ratio was 1,1:1 in this cohort. Younger age at diagnosis was found in males. AS was the most frequent disease (54,7%), followed by PsA (35,7%), and undifferentiated SpA (9,5%). The male gender was positively associated to the presence of AS (OR 2,29 95%IC 1,31–4,04), radiographic sacroilitis (OR 3,46 95%IC 1,82–6,56), HLAB27 positivity (OR 1,95 95%IC 1,31–2,91), low back pain (OR 1,85 95%IC 1,34–2,54) and axial involvement (OR 1,98 95%IC 1,42–2,77). According to the therapeutic profile, female gender was positively associated to the use of conventional DMARD therapy (i.e., methotrexate (p=0,03), leflunomide (p=0,0057), chloroquine (p=0,013)), while male patients were more associated to the use of biologic therapy.

Table 1. General characteristics of patients with SpAs by gender

	All (N=621)		Male (N=328)		Female (N=293)		p-value
Age (mean)	49,4		48,6		50,2		0,15
Age at diagnosis (mean)	38,9		37,2		40,6		**0,0042**
Years of evolution (mean)	9,8		10,6		9,1		**0,02**
	N	%	N	%	N	%	
Age at onset <45 years	469	75,5	257	78,3	212	72,3	0,008
Diagnosis							
AS	340	54,7	208	63,4	132	45,1	
PsA	222	35,7	96	29,2	126	43	**<0.0001**
Und SpA	59	9,5	24	7,3	35	11,9	
Low back pain	342	55,1	204	62,2	138	47,1	**0,0002**
Arthritis	411	66,2	215	65,5	196	66,9	0,72
Enthesitis	217	34,9	125	38,1	92	31,4	0,08
Dactylitis	116	18,6	54	16,4	62	21,2	0,13
Uveitis	92	14,8	52	15,8	40	13,6	0,44
Psoriasis	225	36,2	98	29,8	127	43,3	**0,0005**
Sacroilitis (Rx)	70/171	40,9	46/82	56,1	24/89	26,9	**0,0001**
Sacroilitis (MRI)	203/279	72,7	102/136	75	101/143	70,6	0,41
HLA-B27	284/438	64,8	176/246	71,5	108/192	56,2	**0,0009**
Axial	397	63,9	234	71,3	163	55,6	**<0.0001**
Peripheral	488	78,6	254	77,4	234	79,8	0,46
Both	264	42,5	160	48,8	104	35,5	**0,0008**

Conclusions: In this Colombian large sample with SpA, male patients have a younger onset of disease, higher proportion of axial involvement, HLAB27 positivity, evidence of radiographic sacroilitis and higher use of anti-TNF therapy.

References:

[1] Roussou E, Sultana S. Spondyloarthritis in women: differences in disease onset, clinical presentation, and Bath Ankylosing Spondylitis Disease Activity and Functional indices (BASDAI and BASFI) between men and women with spondyloarthritides. Clin Rheumatol. 2011;30(1):121–7.

[2] Ibn Yacoub Y, Amine B, Laatiris A, Hajjaj-Hassouni N. Gender and disease features in Moroccan patients with ankylosing spondylitis. Clin Rheumatol. 2012;31(2):293–7.

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SAT0415 HIGH PREVALANCE OF HIP ARTHRITIS IN PATIENTS WITH ANKYLOSING SPONDYLITIS TREATED WITH TNF INHIBITORS

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Background: Hip involvement is the most frequent extraspinal arthritic manifestation of Ankylosing Spondylitis (AS) and a common cause of disability. It is present in 24% to 36% of AS patients, leading to total hip replacement (THR) in 5%.

Objectives: To examine the prevalence of hip arthritis in patients with AS under TNF-inhibitor (TNFi) treatment, to identify predictors of its development and possible gender differences.

Methods: Consecutive TNFi-naïve AS patients (fulfilling the modified New York criteria) who were eligible for TNFi treatment were included. At baseline (before the start of TNFi), disease activity and function were recorded by BASDAI, ASDAS-CRP/ESR, BASFI and BASMI. Anteroposterior x-rays of the pelvis and lateral x-rays of cervical and lumbar spine were obtained at baseline and scored according to the BASRI-hip scoring system and mSASSS. Hip involvement was assessed both clinically (as pain, reduced range of motion and intermalleolar distance) and radiographically (BASRI-h score $\geq$2 was defined as definitive hip involvement). Mann-Whitney, two-sample t-test and logistic regression analysis were applied. The groups' averages were expressed as mean±SD, or median (IQR) according to the normality of data.

Results: 298 consecutive AS patients (214 men, age: 49±12years (mean±SD), disease duration: 23.8±11.8 years) were included. Definite hip involvement was detected in 113/298 (38%) patients. Bilateral THR and unilateral THR underwent 10/298 (3.4%) and 9/298 (3%) patients respectively. No gender difference in the prevalence of hip arthritis was observed (females: 26/84 (31%) vs. males 87/214 (40.8%). The patients with hip arthritis compared to those without had significantly higher disease activity scores (BASDAI (6.1±1.7 vs. 5.5±1.9, p=0.008), ASDAS-CRP (3.9±0.8 vs. 3.4±0.9, p=0.0001), CRP [16 (7.7–32) median (IQR) vs. 7 (2.9–22), p=0.0001], ESR [26 (10–42) vs. 15.5 (7–33), p=0.004], higher BASFI-scores (6.3±2.1vs. 4.8±2.3, p<0.0001), BASMI-scores (5.1±2.3vs. 3.4±2, p<0.0001) and reduced intermalleolar distance (89±23 vs. 104.8±19 cm, p<0.0001). AS patients with hip arthritis also had significantly higher mSASSS-scores [15 (3- 39) vs. 4 (0–16), p<0.0001] more often syndesmophytes [75/107 (70.1%) vs.75/181 (41.4%), p<0.0001] and peripheral arthritis [54/111 (48.7%) vs. 68/184 (37%), p=0.048). According to multivariate logistic regression analysis, independent risk factors for hip arthritis were: raised CRP (OR: 1.01 CI: 1.001–1.02), presence of syndesmophytes (OR: 2.6, CI: 1.45–4.8) and a high BASFI (OR: 1.33, CI: 1.1–1.5).

Conclusions: The prevalence of hip arthritis in AS is very high (1/3) and significantly related to high disease activity and a high mSASSscore. No gender difference in prevalence of hip arthritis was found. Considering the large impact on function, this manifestation might need more attention.

Disclosure of Interest: None declared

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SAT0416 ANKYLOSING SPONDYLITIS DISEASE ACTIVITY SCORE (ASDAS) IS ASSOCIATED WITH NSAID USE OVER TIME

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Background: Non-steroidal anti-inflammatory drugs (NSAIDs) are the cornerstone of conventional treatment in ankylosing spondylitis (AS). In case of insufficient response, tumor necrosis factor-alpha (TNF-α) inhibitors are available. Still little is known about concomitant NSAID use.

Objectives: To investigate the longitudinal association between disease activity and NSAID use in established AS patients.

Methods: The present analysis is part of the GLAS cohort, an ongoing longitudinal observational axial spondyloarthritis (SpA) cohort study in daily clinical practice. During 52 weeks of follow-up, NSAID use was recorded prospectively. The ASAS-NSAID index was calculated using the dosage and frequency assessed retrospectively from clinical records. Disease activity was assessed using ASDAS, BASDAI, and serum CRP levels.

Generalized estimating equations (GEE) was used to evaluate NSAID use in relation to assessments of disease activity over time. NSAID use was analyzed using 4 parameters: NSAID use (yes/no), ASAS-NSAID index, low on demand use (index $\geq$10 versus <10), and high use (index $\geq$90 versus <90). Analyses were stratified for treatment regimen: patients starting TNF-α inhibitors and patients on conventional treatment.

Results: Of the 393 included AS patients, 67% were male, mean age was 44±13 years, median symptom duration 15 years (IQR 8–24), and 79% were