Figure 1. Distribution of the result of ASAS-HI scores (N= 587)

Conclusion: One out of five patients with axSpA reported poor health and functioning according to the ASAS-HI, and almost half of patients reported worsening self-perceived health status during the first wave of the COVID-19 pandemic.

Keywords: COVID-19, axial spondyloarthritis, ASAS-HI, health

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AB0501 CORRELATION BETWEEN AXIAL AND PERIPHERAL ENTESIS IN SPONDYLARTHRITIS

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Background: Enthesitis is the clinical hallmark of spondylarthritis. It refers to the inflammation of joint attach in the bone. Several sites enthesitis may be affected, and a wide variety of scoring systems were available.

Objectives: We aimed to determine the prevalence of axial enthesitis in the anterior chest wall (ACW), and its correlation with peripheral sites especially, the Achilles tendon (AT).

Methods: We conducted a prospective study including patients with SpA according to the ASAS criteria. Sociodemographic data, as well as disease characteristics, were recorded. The Maastricht Ankylosing Spondylitis Enthesitis Score (MASES) was used to assess clinical entheses (first and seventh costochondral joints, posterior superior iliac spine, anterior superior iliac spine, iliac crest, and Achilles tendon insertion). The presence of enthesitis on the US was then assessed in the right and left sternoclavicular (SCJ), manubriosternal (MSJ) joints, as well as in the AT, using Esaote My Lab 50.

Results: The study included 47 patients with SpA: axial (n=26), axial and peripheral (n=21). There was a female predominance (sex ratio: 0.2). The mean age was 42.2 years $\pm$ 12.6 [11-70]. The age of onset of the disease was <40 years in 59.6% of cases. Tenderness in enthesal sites was found in 63.8% of patients, especially in the plantar fascia and AT (32.7%, 6%, respectively). The mean MASES score was 2.9 [0-13]. Clinical ACW involvement (29.1%) was as follows: 1st right chondro-sternal joint (CSJ) (19.1%), 1st left CSJ (25.5%), 7th right CSJ (27.7%) and 7th left CSJ (31.9%). US involvement of the ACW was 14.3%. Enthesitis of the AT was found in 70% of cases on US examination. ACW US involvement was correlated neither to the BMI nor to MASES score (p=0.16, p=0.6 respectively). Similarly, there was no correlation between the presence of US ACW enthesitis and clinical nor the US AT enthesitis (p=0.09, p=0.209, respectively).

Conclusion: Our study showed that ACW enthesitis is frequent in SpA, especially by US screening. This axial enthesitis, don't necessarily reflect a simultaneous clinical or US involvement of the peripheral entheses. Further studies are needed to characterize this subtype of SpA.

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AB0502 HEALTH-RELATED QUALITY OF LIFE MEASURES IN SPONDYLOARTHRITIS PATIENTS UNDER BIOLOGICAL THERAPIES IN REAL LIFE

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Background: Spondyloarthritis patients have reduced health-related quality of life (HRQL) compared to general population. Biological treatment strategies in real life aim to reduce patients' symptoms and different HRQL parameters would share the same behavior as patients' symptoms and disease activity.

Objectives: We aim to assess the differences in HRQL reported by spondyloarthritis patients during the first six months of biological therapy according to the treatment effectiveness.

Methods: We performed a prospective observational study of six months of follow-up in spondyloarthritis patients who are newly on biological therapy. A basal visit and 1, 3 and 6 months follow-up visits were conducted. We analyzed changes during follow-up in the HRQL parameters reported by patients through AsqoL and ASAS-health-index questionnaires. Moreover we measured functional disability through HAQ and BASFI index, disease activity by BASDAI, ASDAS-CRP and ASDAS-ESR index.

Statistical analyses were achieved using R software, through multivariate linear regression models for continuous data and Bayesian mixed ordinal regression models with monotonic effect for ordinal data. The corresponding odd ratios (OR) were calculated with their confidence intervals (CI 95%).

Results: We included 53 patients (71.77% male), the 73.58% diagnosed with ankylosing spondylitis (AS) and the 26.42% with axial spondyloarthritis. Mean age at the beginning of treatment was 48.74 (11.21) years, mean age at diagnosis was 41.57 (11.97) and mean disease evolution was 7.19 (9.24) years. 60.42% of them exhibited HLAB27 positivity.

34 patients started biological therapy with TNF- α inhibitors and 19 with IL-17 inhibitors. The 81.13% of patients were under monotherapy, and the other 18.87% was treated with DMARDs. The 77.36% of the total number of patients was on the biological therapy at 6 months of follow-up, while the 22.64% discontinued at 6 months of follow-up (9 due to inefficacy and 3 due to adverse effects).

42 patients completed the follow-up at 6 months, and 3 patients achieved until visit 3 due to treatment failure. In 1 case visit 1 and in 7 cases visit 3 could not be performed due to COVID19 pandemic situation.

We observed a significant correlation among AsqoL and ASAS-hi values with disease activity indexes (BASDAI, ASDAS-CRP, ASDAS-ESR) and functional disability (HAQ, BASFI). The statistical analyses showed a significant association where AsqoL and ASAS-hi values are significantly decreased in treatment failures compared to the successful treatment, and in patients with previous biological therapy compared to naïve patients. No effect of years of disease evolution and the type of biological treatment in the AsqoL and ASAS-hi values was observed. (See Table 1) These results were consistent with the significant association found among the disease activity and functional disability with the biological therapy efficacy and the previous biological treatment.

Table 1.

Comparison with effectiveness of biological therapy	Odds Ratio (OR)	95% CI	Comparison with previous biological therapy	Odds Ratio (OR)	95% CI
AsqoL	1.502	1.123–2.033	AsqoL	10.704	1.232–108.504
ASAS-HI	1.56	1.184–2.078	ASAS-HI	11.553	1.299–108.974
BASDAI	1.5	1.199–2.04	BASDAI	11.96	1.823–86.901
BASFI	1.348	1.036–1.76	BASFI	18.37	2.15–176.988
ASDAS-CRP	1.538	1.176–2.036	ASDAS-CRP	8.869	2.001–42.272
ASDAS-ESR	1.944	1.166–3.384	ASDAS-ESR	44.621	2.886–1077.816
HAQ	1.524	1.154–2.027	HAQ	24.111	1.779–371.742

Conclusion: The AsqoL and ASAS-hi questionnaire results are correlated with disease activity and functional disability and showed the same behaviour as these parameters, being also associated to the biological therapy efficacy as

well as to previous biological therapies. The HRQL variables would be additional clinical results that make it possible to achieve a better management of biological therapies in spondyloarthropathy patients.

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AB0503

DISEASE CONTROL IN ANKYLOSING SPONDYLITIS PATIENTS WITH PERIPHERAL ARTHRITIS IN REAL CLINICAL PRACTICE IN SPAIN: MIDAS STUDY RESULTS

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Background: MIDAS study assessed disease activity in patients (pts) with ankylosing spondylitis (AS) treated in clinical practice in Spain.

Objectives: This subanalysis compared disease activity status between AS pts with and without peripheral arthritis (PA).

Methods: Observational, non-interventional, cross-sectional, multicenter study. Pts ≥18 years with ≥6 months diagnosis, fulfilling ASAS and modified New York criteria; undergoing treatment ≥3 months. Disease activity was measured by BASDAI and ASDAS-CRP. The number of painful and swollen joints was recorded in AS pts according to the OMERACT recommendations.¹

Results: 313 AS pts included: 251 (80.2%) without PA and 62 (19.8%) with PA (Table 1). The most frequently involved painful joints in pts with PA were knees (29.0%) and hips (25.8%), while the swollen ones were proximal interphalangeal joints of the hands (17.7%), knees (9.7%) and wrists (8.1%). According to BASDAI (Figure 1A), pts with PA showed a higher score 4.2 (2.4) and a lower percentage 58.1% had disease activity controlled (BASDAI<4) than total AS pts (3.1 [2.2] and 64.5%, respectively) and pts without PA (2.8 [2.1] and 70.1%, respectively). According to ASDAS-CRP (Figure 1B), mean (SD) score was 1.9 (1.1) for AS pts, 2.4 (1.1) for pts with PA and 1.8 (1.1) for pts without PA, while 29.4% AS pts, 14.5% pts with PA and 33.1% pts without PA had inactive disease (ASDAS-CRP<1.3). By combining both indices (ASDAS-CRP and BASDAI), 51.8% AS pts showed adequate control (inactive disease/remission) of disease activity, 29.0% of pts with PA and 57.4% of pts without PA.

Table 1. Baseline demographic and clinical characteristics of the AS pts

	AS (n=313)	AS without PA (n=251)	AS with PA (n=62)
Age (years), mean (SD)	50.4 (12.0)	50.1 (11.9)	51.5 (12.5)
Sex (male), n (%)	237 (75.7%)	193 (76.9%)	44 (71.0%)
Time since diagnosis (years), mean (SD)	15.5 (11.6)	15.4 (11.4)	16.0 (12.6)
Time from onset of symptoms to diagnosis (years), mean (SD)	5.0 (7.2)	4.9 (7.1)	5.6 (7.6)
Presence of HLA-B*27+, n (%)	245 (78.5%)	197 (78.8%)	48 (77.4%)
Family history of AS, n (%)	66 (21.1%)	55 (21.9%)	11 (17.7%)
Family history of psoriasis, n (%)	43 (13.7%)	34 (13.5%)	9 (14.5%)
Pts previously treated with bDMARD, n (%)	99 (31.6%)	79 (31.5%)	20 (32.3%)
Swollen joint count (0-66), mean (SD)	0.1 (0.9)	0.0 (0.0)	0.7 (1.9)
Painful joint count (0-68), mean (SD)	0.6 (2.4)	0.0 (0.0)	3.0 (4.7)
CRP levels (mg/l), mean (SD)	5.1 (8.2)	4.7 (7.6)	6.7 (10.3)
Active disease, n (%) ^a			
BASDAI ≥4	111 (35.5%)	26 (41.9%)	75 (29.9%)
ASDAS-CRP ≥2.1	133 (42.4%)	93 (37.1%)	40 (64.5%)
BASFI, mean (SD)	3.4 (2.7)	3.1 (2.6)	4.5 (2.8)
MASES index, mean (SD)	0.2 (0.8)	0.2 (0.7)	0.4 (1.2)
SPARCC index, mean (SD)	0.4 (1.1)	0.3 (1.0)	0.6 (1.4)
Pts perceived disease control (PASS), n (%)	270 (86.3%)	221 (88.0%)	49 (79.0%)
ASAS-HI, mean (SD)	5.8 (4.4)	5.4 (4.2)	7.6 (4.6)

^aRefers to the percentage of pts with active disease according to BASDAI≥4 and ASDAS-CRP ≥2.1.

Figure 1. Disease status according to peripheral joints involvement (A) Disease control according to BASDAI (B) Disease activity according to ASDAS-CRP

Conclusion: Patients of the MIDAS study with peripheral disease showed higher disease activity and worse physical function, suggesting a severe and complex phenotype more than the one of the AS pts without PA.

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AS, ankylosing spondylitis; ASDAS-CRP, Ankylosing Spondylitis Disease Activity Score- C-reactive protein; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; PA, peripheral arthritis.

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AB0504

TOPOGRAPHY OF 18F-FDG PET/CT INFLAMMATORY SITES IN SPONDYLOARTHRITIS IN COMPARISON TO POLYMYALGIA RHEUMATICA AND TO PATIENTS WITHOUT INFLAMMATORY RHEUMATIC DISEASE

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Background: Spondyloarthritis (SpA) is a common inflammatory rheumatism, characterized by axial and/or peripheral enthesitis. The positron emission tomography (PET/CT) allows the detection of inflammation.

Objectives: Our objective was to study the rhizomelic fixation with 18F-FDG (18-Fluorine deoxyglucose) PET/CT in SpA, compared to a Polymyalgia Rheumatica (PMR) group and to a control without rheumatological manifestations

Methods: Monocentric and retrospective study, including patients who have benefited from PET/CT. 2 groups of patients, with SpA on the one hand, and PMR on the other hand, fulfilling standard diagnostic criteria. A third group of controls (CN) benefiting from PET/CT in the context of assessment of a neoplasia. The rhizomelic fixations were evaluated according to the average of semi-quantitative scores. This in different rhizomelic sites, articular (gleno-humeral, coxo-femoral) and extra-articular (sub acromial (BSAD), trochanteric bursitis).

Results: 147 patients were included: 44 SpA, 50 PMR, and 53 CN. The rhizomelic fixations were significantly lower in SpA compared to PMR: on the pelvic girdle [0.31(0.7)