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POS0993

THE IMPORTANCE OF PHYSICAL ACTIVITY IN RELATION TO BEING OVERWEIGHT/OBESE WITH AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE SPANISH ATLAS

M. Garrido-Cumbrera¹, E. Collantes-Estevez², V. Navarro-Compán³, P. Zarco-Montejo⁴, J. Correa-Fernández¹, C. Sastré⁵, P. Plazuelo-Ramos⁶, J. Gratacos-Masmitja⁷ on behalf of Atlas working group. ¹Universidad de Sevilla, Health & Territory Research (HTR), Seville, Spain; ²Reina Sofia University Hospital, Rheumatology Department, Cordova, Spain; ³Hospital Universitario La Paz, IdiPaz, Madrid, Spain; ⁴Hospital Universitario Fundación Alcorcón, Rheumatology Department, Madrid, Spain; ⁵Novartis Farmacéutica Spain, Immunology, Hepatology and Dermatology, Barcelona, Spain; ⁶Spanish Federation of Spondyloarthritis Associations (CEADE), Presidency, Madrid, Spain; ⁷Hospital Universitaria Parc Taulí, Rheumatology Department, Barcelona, Spain

Background: Evidence on the negative effects of being overweight/obese on the health outcomes of patients with axial spondyloarthritis (axSpA) is increasing.

Objectives: This study aimed to identify associations between Body Mass Index (BMI) categories and disease activity, functioning, quality of life, and mental health in a large sample of axSpA patients.

Methods: In 2016, a sample of 680 unselected patients with axSpA participated in the Atlas of Axial Spondyloarthritis in Spain through an online survey. The sample was divided in two groups: 1) Patients with a BMI of 18.5 to <25 Kg/m² (normal weight), and 2) Patients with a BMI of ≥ 25 Kg/m² (overweight/obesity), excluding the underweight category (BMI <18.5 Kg/m²). The Mann-Whitney and Pearson's chi-square tests were used to analyse possible relationships between independent sociodemographic characteristics, employment, lifestyle, patient-reported outcomes, and comorbidity variables with those who are overweight/obese. Univariate and multivariate binary logistic regression was used to determine the association of the possible factors with those who are overweight/obese.

Results: Of the 663 patients analysed, the mean age was 45.9 years, 51.4% were female, 37.0% had a university degree, and 72.5% were married. The prevalence of overweight/obese patients was 53.4% compared to 46.6% who were of a normal weight. The patients with the highest prevalence of being overweight/obese were older (49.3 vs 42.0, p<0.001), with no university education (59.8% vs 42.4% of university, p<0.001), often widowers (75.0% vs 30.8% of single people, p<0.001), and reported membership of patient organisations (61.7% vs 46.6%, p<0.001). With respect to patients of normal weight, those who were overweight/obese presented greater spinal stiffness (8.2 vs 6.6, p<0.001) and a longer diagnostic delay (9.2 vs 7.8, p=0.005). In addition, patients who were overweight/obese were more likely physically inactive (63.7% vs 36.3%, p=0.007). In the multivariable binary logistic regression analysis, the qualitative factors associated with the presence of being overweight/obese were physical inactivity (OR= 2.40) and males (OR= 1.81), while the quantitative factor most associated with the presence of being overweight/obese were greater spinal stiffness (B= 0.121) and older in age (B= 0.052) (Table 1).

Table 1. Logistic regression to analyses factor associated with being overweight/obese (N= 469)

	Univariate logistic analysis		Multivariate logistic analysis	
	OR	p-value ¹	OR	p-value ¹
Qualitative factors				
Gender. Male	2.376	<0.001	1.811	0.005
Educational level. No university	2.018	<0.001	1.188	0.422
Marital Status. Widowed	2.647	0.235	NA	NA
Member of PAGs. Yes	1.851	<0.001	1.095	0.680
Employment. Retired / early retirement	4.414	<0.001	1.732	0.195
Physical activity. No	1.703	0.007	2.400	0.038
Quantitative factors	B	p-value ²	B	p-value ²
Age	0.070	<0.001	0.052	<0.001
Spinal Stiffness (3-12)	0.220	<0.001	0.121	0.004
Diagnostic Delay	0.024	0.035	0.008	0.568

¹p-value for test H₀: OR = 1 ²p-value for test H₀: B = 0.

Conclusion: Being overweight/obese is a common comorbidity among patients with axSpA. The lack of physical activity, male gender, higher spinal stiffness, and older age increase the probability of prevalence of being overweight/obese. Physicians should encourage physical activity in patients with axSpA, especially among men and older people to prevent the factors of being overweight/obese.

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POS0994

NON-RHEUMATOLOGISTS FIND IT DIFFICULT TO IDENTIFY AXIAL SPONDYLOARTHRITIS IN WOMEN AND YOUNG PEOPLE. RESULTS FROM THE SPANISH ATLAS

M. Garrido-Cumbrera¹, V. Navarro-Compán², J. Gratacos-Masmitja³, P. Zarco-Montejo⁴, J. Correa-Fernández¹, C. Sastré⁵, P. Plazuelo-Ramos⁶, E. Collantes-Estevez⁷ on behalf of Atlas working group. ¹Universidad de Sevilla, Health & Territory Research (HTR), Seville, Spain; ²Hospital Universitario La Paz, IdiPaz, Madrid, Spain; ³Hospital Universitaria Parc Taulí, Rheumatology Department, Barcelona, Spain; ⁴Hospital Universitario Fundación Alcorcón, Rheumatology Department, Madrid, Spain; ⁵Novartis Farmacéutica Spain, Immunology, Hepatology and Dermatology, Barcelona, Spain; ⁶Spanish Federation of Spondyloarthritis Associations (CEADE), Presidency, Madrid, Spain; ⁷Reina Sofia University Hospital, Rheumatology Department, Cordova, Spain

Background: Delayed diagnosis in axial spondyloarthritis (axSpA) in Spain seems to be influenced by the patient diagnostic pathway. In particular, not all patients are diagnosed by rheumatologists, the profession better suited to make an axSpA diagnosis.

Objectives: The aim of this study is to evaluate the differences between patients diagnosed by a rheumatologist and those diagnosed by other healthcare professionals (HCPs).

Methods: In 2016, a sample of 680 unselected patients with axSpA participated in the Atlas of Axial Spondyloarthritis in Spain, an online survey. The sample was divided into: 1) Patients diagnosed by rheumatologists and 2) Non-Rheumatologist diagnosis including general practitioner, orthopaedic specialist, and physiotherapist. The Mann-Whitney and Pearson's chi-square tests were used to assess possible differences between both groups in sociodemographic characteristics, employment, lifestyle, patient-reported outcomes, and comorbidities. Univariate and multivariate binary logistic regression was used to analyse the possible factors associated with diagnosis by a non-Rheumatologist.

Results: A total of 522 axSpA patients participated in this study: the mean age was 45.3 years, 51.0% were female, 38.5% had a university degree, and 71.6% and were married. Prior to diagnosis, axSpA patients visited different HCPs such as a General Practitioner (GP) (88.5%), orthopaedic specialists (71.6%), rheumatologists (71.0%), and physiotherapists (46.9%). The greatest number of visits (mean, median) were made to physiotherapists (3.4, 3), followed by orthopaedic specialists (3.0, 2), rheumatologists (2.0, 1) and GPs (2.6, 2). The majority (81.4%) of patients were diagnosed by a rheumatologist, while 18.6% received their diagnosis from a non-rheumatologist (10.9% orthopaedic specialist, 7.3% general practitioner, and 0.4% physiotherapist). With respect to other specialists such as the GP, orthopaedic specialist or physiotherapist, patients diagnosed by the rheumatologist were younger (44.3 vs 49.5, p<0.001), more frequently female (54.8% vs 45.2% of male, p<0.001), with worse mental health (5.9 vs 4.8, p=0.039), who visited more professionals before being diagnosed (3.0 vs 2.5, p=0.001), were more frequently smokers (40.2% vs 26.0%, p=0.010) and used more biologicals (45.9% vs 33.0%, p=0.021). In the multivariate binary logistic regression, the qualitative factors associated with diagnosis by non-rheumatologists are males (OR= 1.80), and the quantitative factors associated with the diagnosis by non-rheumatologists are older age (B=0.027; Table 1).

Table 1. Logistic regression to analyses factor associated with non-rheumatologist diagnosis (N= 440)

	Univariate logistic analysis*		Multivariate logistic analysis*	
	OR	p-value ²	OR	p-value ²
Qualitative factors				
Gender. Female ¹	2.354	<0.001	1.797	0.030
Smoking. Yes	0.523	0.010	0.611	0.095
Used of Biologics. Yes	0.581	0.022	0.640	0.086
Quantitative factors	B	p-value ³	B	p-value ³
Age, in years	0.044	<0.001	0.027	0.028
GHQ-12 (0-12)	-0.059	0.038	-0.011	0.721
Number of HCPs seen before diagnosis	-0.294	0.001	-0.153	0.151

*Reference category of the dependent variable: Non-Rheumatologist; ¹Female vs male;

²p-value for test H₀: OR = 1 ³p-value for test H₀: B = 0

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

G. Fitzgerald¹, S. Maguire^{2,3}, F. B. O'shea^{2,3}, C. López-Medina⁴, M. Dougados⁴, N. Haroon^{5,6}. ¹Galway University Hospital, Rheumatology, Galway, Ireland; ²Trinity College Dublin, Medicine, Dublin, Ireland; ³St. James's Hospital, Rheumatology, Dublin, Ireland; ⁴Cochin Hospital, Rheumatology, Paris, France; ⁵University Health Network, Rheumatology, Toronto, Canada; ⁶Toronto Western Hospital, Rheumatology, Toronto, Canada

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% v 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

C. Tornero¹, V. Navarro-Compán¹, B. Joven-Ibáñez², R. Almodovar³, X. Juanola-Roura⁴, C. Fernández-Carballido⁵, J. C. Quevedo-Abeledo⁶, J. Rosas⁷, A. Hernández⁸, C. A. Montaña-Morales⁹, J. R. Maneiro¹⁰, A. Juan-Mas¹¹, J. A. Pinto Tasende¹², M. Moreno¹³, J. Sanz¹⁴, T. Ruiz Jimeno¹⁵, M. Moreno¹⁶, M. L. Ladehesa Pineda¹⁷, E. De Miguel¹⁸ on behalf of Esperanza study group.

¹Hospital Universitario La Paz, Department of Rheumatology, Madrid, Spain; ²Hospital Universitario 12 de Octubre, Department of Rheumatology, Madrid, Spain; ³Hospital Universitario Fundación Alcorcón, Department of Rheumatology, Madrid, Spain; ⁴Hospital Universitari de Bellvitge, Department of Rheumatology, Barcelona, Spain; ⁵Hospital General Universitario de Elda, Department of Rheumatology, Alicante, Spain; ⁶Hospital Universitario de Gran Canaria Doctor Negrín, Department of Rheumatology, Las Palmas de Gran Canaria, Spain; ⁷Hospital Marina Baixa, Department of Rheumatology, Alicante, Spain; ⁸Hospital Virgen de la Salud, Department of Rheumatology, Toledo, Spain; ⁹Hospital Universitario de Salamanca, Department of Rheumatology, Salamanca, Spain; ¹⁰Complejo Hospitalario Universitario de Santiago de Compostela, Department of Rheumatology, Santiago de Compostela, Spain; ¹¹Hospital Universitario Son Llàtzer, Department of Rheumatology, Palma de Mallorca, Spain; ¹²Complejo Hospitalario Universitario de A Coruña, Department of Rheumatology, La Coruña, Spain; ¹³Hospital Parc Taulí, Department of Rheumatology, Barcelona, Spain; ¹⁴Hospital Universitario Puerta de Hierro, Department of Rheumatology, Madrid, Spain; ¹⁵Hospital de Sierrallana, Rheumatology, Torrelavega, Spain; ¹⁶Hospital Clínico Universitario Virgen de la Arrixaca, Department of Rheumatology, Murcia, Spain; ¹⁷Hospital Universitario Reina Sofía, Department of Rheumatology, Córdoba, Spain; ¹⁸Hospital Universitario La Paz, Department of Rheumatology, Madrid, Spain

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