Abstract THU0394 – Table 1. Demographics of the study population.

Variable	PsA n=570	axSpA n=418
Females, n (%)	292 (51.2)	117 (28.5)
Age, years, mean (SD)	52.68 (13.09)	50.14 (14.55)
Disease duration, years, median (IQR)	12 (8-19)	20 (13-31)
Delay to diagnosis, years, median (IQR)	1 (0-2)	4 (1-10)
Psoriasis, n (%)	528 (92.6)	58 (13.9)
Uveitis, n (%)	21 (3.7)	118 (28.2)
IBD, n (%)	14 (2.6)	52 (12.4)
Crohn, n (%)	7 (1.3)	23 (5.5)
Ulcerative colitis, n (%)	4 (0.7)	21 (5.0)
Undifferentiated colitis, n (%)	3 (0.5)	8 (1.9)

Conclusion: The prevalence of EAMs (uveitis and IBD) in this cohort appears higher in axSpA than PsA and is related to disease duration. Diagnostic delay occurs in both groups being more significant in axSpA, and should be highlighted as a priority research area in order to improve the outcome of people affected by SpA.

REFERENCES:

[1] De Winter JJ, et al. *Arthritis Res Ther* (2016); 18:196.

Disclosure of Interests: Xavier Michelena-Vegas: None declared, Sayam Dubash: None declared, Ann Morgan: None declared, Helena Marzo-Ortega Grant/research support from: Janssen, Novartis and Pfizer, Consultant for: AbbVie, Celgene, Janssen, Eli-Lilly, Novartis and UCB, Speakers bureau: AbbVie, Celgene, Janssen, Eli-Lilly, Novartis and UCB
DOI: 10.1136/annrheumdis-2019-eular.7032

THU0395 MUSCLE STRENGTH COMPROMISE IN YOUNG AXIAL SPA PATIENTS: PRELIMINARY RESULTS FROM MYOSPA STUDY

Agna Neto^{1,2}, Rita Pinheiro Torres^{1,2}, Lucia Domingues², Diana Teixeira^{3,4}, Santiago Rodrigues-Manica^{1,2}, José Marona^{1,2}, Carina Lopes^{1,2}, João Lagoas Gomes^{1,2}, Tiago Costa^{1,2}, Maria João Gonçalves¹, Inês Silva¹, Paula Carreto¹, Walter Castelhão¹, Margarida Mateus¹, Manuela Costa¹, Sandra Falcão^{1,2}, Ana Filipa Mourão^{1,2}, Atlas Sardoo², Sara Maia², Conceição Calhau^{3,4}, Jaime Branco^{1,2}, Fernando Pimentel Dos Santos^{1,2}.

¹Rheumatology Department, Hospital de Egas Moniz (CHLO), Lisbon, Portugal;

²CEDOC, NOVA Medical School, New University of Lisbon, Lisbon, Portugal;

³CINTESIS, Lisbon, Portugal; ⁴Nutrition and Metabolism, NOVA Medical School, New University of Lisbon, Lisbon, Portugal

Background: Pain and stiffness are characteristic clinical features of axial Spondyloarthritis (axSpA), leading to functional impairment. Patients describe beneficial effects of physical activity, suggesting a possible involvement of muscle tissue. Body composition data in young axSpA patients with short disease duration are scarce and its implications in muscle strength are not yet clarified.

Objectives: The purpose of this study is to assess the muscle strength and body composition of different body segments (trunk, upper and lower limbs), in patients with axSpA and to compare them with healthy controls.

Methods: Patients with clinical diagnosis of axSpA meeting the ASAS classification criteria, aged 18 to 50 years, with symptoms duration ≤ 10 years, were included in this study. Healthy individuals matched by gender and age (1:1) were used as control group (HC). Muscle strength was measured by resisted hand-held dynamometer performed by a single reader, in three different body segments: trunk, upper and lower limbs (on both sides). The mean strength of right and left, upper and lower limbs, was calculated and used in the analysis. Strength of each body segment was also normalized to the total lean mass (LM) of the respective segment. Body composition was measured by octapolar multifrequency bioelectrical impedance analysis (InBody770). Physical activity was assessed by the International Physical Activity Questionnaire (IPAQ). Fisher's exact test or chi-square test and Mann-Whitney U test were used to compare differences between groups.

Results: A total of 27 axSpA patients and 27 HC were included. Mean age was 36.5 ± 1.0 years, 67% were males. There was no significant difference between both groups in terms of age, gender, body mass index and physical activity. AxSpA patients had a mean symptoms duration of 7.0 ± 0.9 years.

AxSpA patients had lower muscle strength in the upper limbs (50.55 ± 31.60 vs 71.70±31.41 $p=0.023$) and lower limbs (52.25±18.45 vs 59.83

±9.75, $p=0.001$), compared to HC. Trunk muscle strength did not show any difference between groups (59.10±26.1 vs 56.45±11.2, $p=0.856$). There were no significant differences in LM and body water, between both groups, for each segment (upper limbs, lower limbs and trunk). Fat mass was significantly higher in the trunk (10.90±8.80 vs 8.10±5.83, $p=0.035$) and upper limbs (1.40±1.35 vs 0.88±1.0, $p=0.05$) of axSpA patients, but not in the lower limbs (3.10±1.90 vs 2.45±1.68, $p=0.157$). Normalized appendicular muscle strength was lower in axSpA patients (upper limbs: 18.63±8.25 vs 21.21±5.92, $p=0.018$) (Table).

Conclusion: Young patients with short duration have reduced appendicular muscle strength, compared to HC, with no differences in LM, suggesting a possible muscle dysfunction. Further studies are needed to confirm these findings and understand the underlying pathophysiological mechanisms.

Abstract THU0395 –Table 1.

Table. Comparison of subjects' characteristics between axSpA patients and healthy controls.

Variable	Patients n=27	Controls n=27	p-value
Age*	36.25±7.82	36.81±7.36	0.808
Gender (male), n (%)	18 (66.7%)	18 (66.7%)	1.000
Body height (cm)	169.80±10.7	172.40±13.3	0.522
Body mass (Kg)	73.00±19.2	70.05±16.5	0.347
BMI (Kg/m²)	25.10±7.00	23.80±3.00	0.303
IPAQ (%)			0.871
Low	10.4	14.6	
Moderate	20.8	18.8	
High	18.8	16.7	
BASDAI	3.0±2.11	-	-
BASFI	0.90±4	-	-
Strength (Nm/s)			
Trunk	59.10±26.1	56.45±11.2	0.856
Upper Limb	50.55±31.60	71.70±31.41	0.023
Lower Limb	52.25±18.45	59.82±9.75	0.001
Lean Mass (Kg)			
Trunk	24.90±4.40	25.25±8.35	0.831
Upper Limb	3.00±0.76	3.12±1.40	0.782
Lower Limb	7.96±2.38	9.17±3.07	0.128
Fat Mass (Kg)			
Trunk	10.90±8.80	8.10±5.83	0.035
Upper Limb	1.40±1.35	0.88±1.05	0.050
Lower Limb	3.10±1.90	2.45±1.68	0.157
Body water (L)			
Trunk	10.40±3.40	19.30±5.98	0.837
Upper Limb	2.34±0.59	2.40±0.96	0.885
Lower Limb	6.13±1.84	6.93±2.33	0.274
Strength/LM (Nm/s/Kg)			
Trunk	2.40±0.60	2.34±0.58	0.628
Upper Limb	18.63±8.25	21.21±5.92	0.018
Lower Limb	6.47±1.71	6.80±2.03	0.233

Values are median ± IQR, unless otherwise indicated.

* Mean ± SD.

BMI: Body Mass Index. IPAQ: International Physical Activity Questionnaire. BASDAI: Bath AS Activity Index. BASFI: Bath AS Functional Index. LM: Lean Mass.

Disclosure of Interests: Agna Neto: None declared, Rita Pinheiro Torres: None declared, Lucia Domingues: None declared, Diana Teixeira: None declared, Santiago Rodrigues-Manica Grant/research support from: Novartis, MSD, Speakers bureau: Novartis, José Marona: None declared, Carina Lopes: None declared, João Lagoas Gomes: None declared, Tiago Costa: None declared, Maria João Gonçalves: None declared, Inês Silva: None declared, Paula Carreto: None declared, Walter Castelhão: None declared, Margarida Mateus: None declared, Manuela Costa: None declared, Sandra Falcão: None declared, Ana Filipa Mourão: None declared, Atlas Sardoo: None declared, Sara Maia: None declared, Conceição Calhau: None declared, Jaime Branco: None declared, Fernando Pimentel dos Santos Grant/research support from: From Abbvie and Novartis, Speakers bureau: Abbvie, Novartis, Pfizer, Biogen,
DOI: 10.1136/annrheumdis-2019-eular.7780

THU0396 SMALL INTESTINAL BACTERIA OVERGROWTH IN SPONDYLOARTHRITIS

Omar Enrique Ocaña García¹, Sergio Cerpa-Cruz¹, Sergio Gutierrez-Ureña¹, Gloria Martinez-Bonilla¹, Ana Guilaíne Bernard Medina¹, Verónica Gonzalez-Diaz¹, Jose Antonio Velarde Ruiz Velazco², Liliana Ivett Hernandez Cruz¹. ¹Civil Hospital Fray Antonio Alcalde, Reumatología, Guadalajara, Mexico; ²Civil Hospital Fray Antonio Alcalde, Gastroenterología, Guadalajara, Mexico

Background: It has shown different alterations in the intestinal microbiota in patient with SpA. Tests for the detection of intestinal dysbiosis have focused on the identification of dysbiosis at the terminal ileum and colon

and little has been explored in the alterations at the level of the jejunum. The tests for its detection are expensive, unavailable and invasive. The breath test is used to detect small intestine bacterial overgrowth (SIBO), being a non-invasive, simple and inexpensive test.

Objectives: To determine the frequency of SIBO and the relation to the clinical activity of SpA.

Methods: An analytical cross-sectional study was conducted in the period March 2018–October 2018. Patients older than 18 years, who signed informed consent, who met modified New York criteria and Caspar criteria were included. Patients were excluded who were diagnosed with active lung infection, active oral infections, interstitial lung disease, chronic obstructive pulmonary disease, acute diarrheal disease, short bowel syndrome, abdominal surgery in less than 6 months, and oral or IV antibiotics used one month before the test.

Patients who fulfilled the inclusion criteria were collected demographic and clinical data, gastrointestinal manifestations were interrogated and ASDAS pcr, BASMI, BASDAI, BASFI activity scales were measured. The breath test was performed by a gastroenterologist. The concentrations of hydrogen produced by bacteria were measured by GASTROLYZER® according to the recommendations of the consensus of the American Gastroenterology Association. It was considered a positive test to change the concentrations of more than 20 ppm with respect to the basal test. To compare the frequency of SIBO, a historical cohort of patients without rheumatic diseases matched by age was taken. The data were presented in means and percentages. Student's T and Mann-Whitney U were performed for numerical variables. Groups with chi square were compared.

Results: We studied 20 patients with ankylosing spondylitis (M/F 9/11) and 11 psoriatic arthritis (M/F 1/12), mean age 54.45 ±13.52, 33 healthy controls matched by age. Positive test was found in 11 (33%) patients (8/3 EA/APs) vs 1 (3%) in controls. When comparing groups with positive test versus negative test groups, patients with SIBO consumed less SSZ (72.7 vs 90.9, p 0.008), had higher frequency of irritable bowel (54 vs 5 vs 9.1, p 0.004), antecedent of cholecystectomy (27.3 vs 9.1 p 0.01), steatorrhea (18.2 vs 0, p 0.001), and higher activity: ASDAS > 2.1 (100% vs 86.4%, p 0.199), BASMI > 4 (36.4% vs 31.8% p 0.79), BASFI > 4 (72.7% vs 50%, p 0.21), enthesitis > 1 (45.5% vs 13.6%, p 0.61).

Conclusion: We found a higher frequency of SIBO in patients with SpA compared to healthy controls, but not related to disease activity. This is the first study to investigate SIBO by breath test in patients with SpA

REFERENCES:

- [1] Rezaie A, Pimentel M, Rao SS. How to Test and Treat Small Intestinal Bacterial Overgrowth: Evidence-Based Approach. *Curr Gastroenterol Rep*. 2016;18(2):8.
- [2] Rezaie A, Buresi M, Lembo A, Lin H, McCallum R, Rao S, et al. Hydrogen and Methane-Based Breath Testing in Gastrointestinal Disorders: The North American Consensus. *Am J Gastroenterol*. 2017;112(5):775–84.
- [3] Machado PM, Landewé R, Heijde Dvander, Assessment of Spondylo Arthritis international Society (ASAS). Ankylosing Spondylitis Disease Activity Score (ASDAS): 2018 update of the nomenclature for disease activity states. *Ann Rheum Dis*. 2018;77(10):1539–40.
- [4] Levy M, Kolodziejczyk AA, Thaïs CA, Elinav E. Dysbiosis and the immune system. *Nat Rev Immunol*. abril de 2017;17(4):219–32.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.5215

THU0397

CLINICAL CHARACTERISTICS AND TREATMENT PROFILES OF PATIENTS WITH ANKYLOSING SPONDYLITIS WHO INITIATED SECUKINUMAB AND OTHER BIOLOGICS: RESULTS FROM THE CORRONA PSORIATIC ARTHRITIS/SPONDYLOARTHRITIS (PSA/SPA) REGISTRY

Alexis Ogdie¹, Mei Liu², Sabrina Rebello², Meghan Glynn², Robert Mclean², Esther Yi^{3,4}, Yujin Park⁵, Philip J. Mease⁶. ¹Perelman School of Medicine at the University of Pennsylvania, Philadelphia, United States of America; ²Corrona, LLC, Waltham, United States of America; ³The University of Texas at Austin, Austin, United States of America; ⁴Baylor Scott and White Health, Temple, United States of America; ⁵Novartis Pharmaceuticals Corporation, East Hanover, United States of America; ⁶Swedish Medical Center/Providence St. Joseph Health and University of Washington, Seattle, United States of America

Background: Secukinumab is the first non-tumor necrosis factor inhibitor biologic therapy approved for the treatment of ankylosing spondylitis (AS) in the United States. Patients with AS in clinical trials who receive biologics, including secukinumab, may not be representative of those treated in real-world clinical practice due to differences in patient characteristics, practice patterns, physician experience, and insurance coverage (ie, access). Few real-world studies have characterized patients with AS who initiate secukinumab. The Corrona PsA/SpA Registry collects data on a robust list of outcome measures, many of which overlap with those used in clinical trials.

Objectives: To describe the characteristics of patients who initiated secukinumab and other biologics for the treatment of AS in the Corrona PsA/SpA Registry.

Methods: This study included patients aged ≥ 18 years with AS (and without concurrent PsA diagnosis) enrolled in the Corrona PsA/SpA Registry who initiated secukinumab or other biologics (adalimumab, etanercept, certolizumab pegol, infliximab, and golimumab) between April 2017 and December 2018. Patient demographics, clinical characteristics, treatment profiles, disease activity, quality of life, and work productivity were assessed at the time of biologic initiation (baseline) and compared between patients who initiated secukinumab and other biologics using t tests or Wilcoxon rank-sum tests for continuous variables and χ^2 or Fisher's exact tests for categorical variables.

Results: Of the 106 patients with AS who initiated a biologic 26 (24.5%) initiated secukinumab and 80 (75.5%) initiated other biologics. Secukinumab initiators were similar to patients who initiated other biologics in terms of demographics and clinical characteristics except that a higher proportion of secukinumab initiators had a history of prior biologic use (69.2% vs 45.0%; $P = 0.03$) and were more likely to have used a higher number of prior biologics compared with other biologic initiators ($P < 0.01$; **Table 1**). No significant differences were observed between patients who initiated secukinumab and other biologics in terms of measures of disease activity, quality of life, and work productivity (**Table 2**).