Table. Characteristics of studies included in the meta-analysis and of the studied patients

Author and year	Design	Country	N° of patients	Age (years)	Male sex	HLA-B27+	Disease duration (years)
Al-Osami 2018	cohort	Iran	170	36.1 (9.0)	158 (93)	68(40)	8.3 (5.9)
Durcan 2012	cross-sectional	Ireland	46	45.1(11.2)	35 (76)	N/D	12.9 (10.9)
Hernandez-Breijo 2019	cohort	Spain/Netherlands	180	47.0 (12.7)	107 (59)	131 (73)	8.0 (5.9)
Lee 2017	cross-sectional	China	194	38.7 (13.7)	150 (77)	159 (82)	7.1 (8.6)
Maas 2016	cross-sectional	Netherlands	461	45.3 (12.8)	303 (66)	361 (80)	17 (15.2)
Micheroli 2017	cohort	Switzerland	624	39.4 (11.6)	388 (62)	487 (78)	13 (10.9)
O'Shea 2015	cross-sectional	Ireland	267	47.8 (N/D)	212 (79)	N/D	21.7 (N/D)
Ottaviani 2012	cohort	France	155	43.1 (12.4)	98 (63)	96 (65)	8.0 (4.8)
Rosas 2017	cross-sectional	Spain/Mexico	57	47.1 (10.4)	37 (65)	44 (77)	9.8 (9.3)
Rubio-Vargas 2016	cross-sectional	Netherlands	168	30.2 (8.2)	81 (48.2)	156 (93)	N/D

Legend. Results are expressed as mean (SD) or number of patients (%). HLA= Human Leukocyte Antigen; N/D= not determined

Conclusion: Poor health status is associated with disease activity, poor quality of life and functional activity. ASAS HI has a good correlation with other parameters to evaluate SpA, reinforcing the construct validity of this new tool.

References:

[1] Kiltz U, et al. *Ann Rheum Dis* 2018;0:1–7.

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FRI0319

DO OBESITY AND OVERWEIGHT INFLUENCE DISEASE ACTIVITY MEASURES IN AXIAL SPONDYLOARTHRITIS? A SYSTEMATIC REVIEW AND META-ANALYSIS

A. Ortolan¹, M. Lorenzin¹, M. Felicetti¹, R. Ramonda¹. ¹University of Padova, Rheumatology Unit, Department of Medicine DIMED, Padova, Italy

Background: obesity is apparently related with worse treatment response in axial spondyloarthritis (axSpA). However, it is unclear whether obesity or overweight per se are associated to higher disease activity scores compared to non-obese individuals, and what is the effect size of this difference.

Objectives: to investigate whether overweight/obesity are associated to higher disease activity as measured by Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) or Ankylosing spondylitis disease activity score (ASDAS) in axSpA patients.

Methods: MEDLINE, PubMed and Web of Science were searched using key terms corresponding to population (axSpA), exposure (overweight/obesity) and outcome (BASDAI, ASDAS). Predefined inclusion criteria were: 1) adult axSpA patients, both radiographic and non-radiographic 2) exposure classified according to Body Mass Index-BMI; 3) BASDAI/ASDAS reported for each BMI group; 4) observational studies. Patients classified according to CASPAR or Moll&Wright criteria for psoriatic arthritis were excluded. Newcastle-Ottawa Scale for cohort, cross-sectional and case-control studies was used for quality check. BASDAI and ASDAS estimates were reported as mean difference (MD) and standard deviation (SD) between the normal BMI axSpA patients and the overweight or obese patients. The statistical heterogeneity of meta-analysis was assessed using the I² statistic. Random-effects meta-analysis was used to pool results.

Results: A total of 330 references were generated by the database search. After removing duplicates, 250 references remained and were assessed for eligibility. A further 206 articles were excluded by titles and abstracts' reading, 44 articles were examined full text. Only 11 articles fulfilled inclusion/exclusion criteria. Following quality check, 10 articles were finally included in the meta-analysis (Table). Among these, 4 studies reported two BMI groups (normal vs overweight+obese), while 6 studies reported three (normal, overweight, obese). In the studies reporting 3 BMI group, weighted means and standard deviation were calculated to create a merged overweight+obese group. The mean difference (MD) between pooled BASDAI and ASDAS of normal BMI patients and those of overweight+obese patients were respectively -0.38 (95%CI: -0.56, -0.21) and -0.19 (95%CI: -0.29, -0.09). In the articles reporting 3 BMI groups, the MD between BASDAI of normal BMI and overweight only patients was -0.09 (95% CI: -0.33; 0.15); between normal BMI and obese only patients MD was -0.77 (95%CI -1.07; -0.48, p<0.0001) (Figure). Heterogeneity statistics revealed low estimates, though with wide CI across all the groups (Figure).

Conclusion: disease activity scores of normal BMI axSpA patients tend to be lower than overweight or obese patients. However, this difference seems to be relevant in practice especially when normal BMI patients are compared to truly obese patients (BMI ≥ 30).

Figure. Results of the meta-analysis of Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) in normal BMI vs overweight or obese individuals (A); in normal BMI vs overweight individuals (C); in normal BMI vs obese individuals (D); meta-analysis of Ankylosing spondylitis disease activity score (ASDAS) in normal BMI vs overweight or obese individuals (B)

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FRI0320

MULTICENTER VALIDATION OF THE DETECTION OF ARTHRITIS IN INFLAMMATORY BOWEL DISEASES (DETAIL) QUESTIONNAIRE FOR THE SCREENING OF SPONDYLOARTHRITIS IN PATIENTS WITH INFLAMMATORY BOWEL DISEASES

L. Perini¹, D. Benfaremo¹, V. Marconi¹, V. Paci¹, M. Di Carlo¹, F. Salafi¹, M. M. Luchetti¹, A. Gabrielli¹ on behalf of GRADES-IBD Study Group. ¹Università Politecnica delle Marche, Dipartimento di Scienze Cliniche e Molecolari, Ancona, Italy

Background: Spondyloarthritis (SpA) is the most frequent extra-intestinal manifestation in inflammatory bowel diseases (IBD), since it may occur in up to 25% of patients. The early referral to a Rheumatology Unit may lead to proper treatment and better outcomes for patients with suspect SpA. Recently, we have developed