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:

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FRIO319 DO OBESITY AND OVERWEIGHT INFLUENCE DISEASE ACTIVITY MEASURES IN AXIAL SPONDYLOARTHRITIS? A SYSTEMATIC REVIEW AND META-ANALYSIS

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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 classification 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 -0.38 (95% CI: -0.7; -0.08), -0.19 (95%CI: -0.29, -0.09). In the articles reporting 3 BMI groups, the mean difference (MD) between BASDAI of normal BMI and overweight only patients was -0.09 (95% CI: -0.33; 0.15); between overweight and obese patients was -0.38 (95% CI: -0.7; -0.08). In the articles reporting 3 BMI groups, the mean difference (MD) between BASDAI of normal BMI and overweight only patients was -0.09 (95% CI: -0.33; 0.15); between overweight and obese patients was -0.38 (95% CI: -0.7; -0.08). In the articles reporting 3 BMI groups, the mean difference (MD) between BASDAI of normal BMI and overweight only patients was -0.09 (95% CI: -0.33; 0.15); between overweight and obese patients was -0.38 (95% CI: -0.7; -0.08). In the articles reporting 3 BMI groups, the mean difference (MD) between BASDAI of normal BMI and overweight only patients was -0.09 (95% CI: -0.33; 0.15). Between overweight and obese patients was -0.38 (95% CI: -0.7; -0.08).

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).