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Background: The disease course of axial SpA (axSpA) is highly variable and can be characterized by ongoing axial inflammation and radiographic progression associated with restricted mobility of the spine, reduced function and disability leading to impairment in quality of life. Control of disease activity is a primary aim in axSpA management. To assess disease activity the Ankylosing Spondylitis Disease Activity Score-C-reactive protein (ASDAS-CRP) is often considered as a reference tool. The data on remission are sparse in axSpA and the identification of long-term remission factors, enabling the patient's management to be adapted, seems necessary but remains unclear.

Objectives: To evaluate the proportion of patients in remission according to ASDAS-CRP at 5 years of follow-up, to describe their characteristics in comparison with patients with active disease at that time, and to identify baseline factors associated with remission at 5 years of follow-up.

Methods: We included all patients from the DESIR (*Devenir des Spondylarthropathies Indifférenciées Récentes*) cohort with available data on ASDAS-CRP at 5-year follow-up and TNF α inhibitors exposure. Patients in remission, defined as an ASDAS-CRP <1.3, and with active disease were compared according to their main demographic, clinical, biological and radiological characteristics. A logistic model stratified on TNF α inhibitors exposure was used in the main analysis. Sensitivity analyses among patients with axSpA diagnosis confirmed by rheumatologist at 5-years were performed.

Results: A total of 614 patients were followed in the DESIR cohort at M60. After excluding those with missing data on ASDAS score (n= 163) and TNF α inhibitors exposure (n= 2), analyzed patients were 449 (73%). Excluded patients had similar baseline characteristics to those included in the analysis. Among patients unexposed to TNF α inhibitors (n=247), 77 (31%) were in remission (37.8 $\pm$ 8.3 years; 55% men, 58% NSAID users), 170 (69%) weren't (39.8 $\pm$ 8.6 years; 42% men, 81% NSAID users). Among exposed patients (n=202), 34 (17%) were in remission (36.1 $\pm$ 8.1 years; 71% men, 29% NSAID users), 168 (83%) weren't (39.5 $\pm$ 9.0 years; 41% men, 63% NSAID users) (Figure 1). Overall, patients in remission were more frequently men, HLA-B27+, with high education and lower BMI at 5-year of follow-up. The baseline factors associated with remission at 5 years of follow-up from the multivariate analysis are presented in Table 1.

Table 1. Baseline factors associated with remission at 5-year follow-up (multivariate analysis)

	Baseline factors positively associated with 5-year remission	Baseline factors negatively associated with 5-year remission
Unexposed to TNF α inhibitors	<ul style="list-style-type: none"> Past history of arthritis (OR_a=2.1, 95%CI 1.2-5.3) 	<ul style="list-style-type: none"> Low BASDAI (OR_a=0.9, 95%CI 0.8-0.9)
Exposed to TNF α inhibitors	<ul style="list-style-type: none"> High education (OR_a=2.9, 95%CI 1.6-5.1) 	<ul style="list-style-type: none"> Low BASDAI (OR_a=0.9, 95%CI 0.9-0.9) Low BMI (OR_a=0.8, 95%CI 0.7-0.9) Low enthesitic index (OR_a=0.8, IC95% 0.7-0.9)

TNF α : Tumor Necrosis Factor alpha; OR_a: adjusted Odd Ratio; 95%CI: 95% confidence interval; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; BMI: Body Mass Index.

Conclusion: The overall remission rate at 5 years was 25%, 31% among patients unexposed to TNF α inhibitors and 17% among those exposed. This study reveals the difficulty in achieving 5-year remission in recent axSpA, especially in the most active forms at baseline; socio-educational factors and overweight also appear to be related.

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OP0053

IMPACT OF CORRECTING CRP THRESHOLD ACCORDING TO BMI ON DIAGNOSIS, DISEASE ACTIVITY, INDICATION OF BIOLOGICAL TREATMENT AND PREDICTION OF THERAPEUTIC RESPONSE, IN PATIENTS SUSPECTED OF AXIAL SPONDYLOARTHRITIS. RESULTS FROM DESIR COHORT

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Background: Acute phase reactants are crucial parameters to consider for management of chronic inflammatory back pain (IBP) patients suspect of axial spondyloarthritis (ax-SpA). Indeed, C-reactive protein (CRP) is part of ASAS classification criteria for SpA, impacts on assessment of disease activity by ASDAS-CRP score, and should be elevated when a bDMARD is discussed in patients without radiological sacroiliac lesions. Moreover, elevated CRP is regarded predictive of favorable therapeutic response. Obesity in otherwise healthy people is associated with high CRP values. An adjusted definition of normal CRP threshold based on gender and BMI has been proposed.

Objectives: The aim of this study was to assess whether correcting CRP threshold with patient's BMI would change classification according to ASAS criteria for ax-SpA, presence of clinically relevant activity according to ASDAS-CRP, indication for TNF inhibitor (TNFi) and, as primary endpoint, improve prediction of therapeutic response to first TNFi.

Methods: The study was conducted in DESIR cohort, which included 708 patients with early IBP suspect of ax-SpA. We included all patients with available data on BMI and CRP. High CRP level was defined either according to usual threshold (5mg/L) or to the formula using BMI for adjustment. With this formula, CRP could be considered "normal" or due to obesity if: $\leq 1 + (BMI-25)/25$ for men and $\leq 1 + (BMI-25)/12.5$ for women (with CRP in mg/dL). We reported distribution of CRP levels in patients with high level according to usual threshold but below BMI adjusted threshold, as it is potentially suggestive of false-positive CRP due to overweight/obesity. Among them, we identified those who had no objective sign of disease activity (defined as arthritis, dactylitis, active uveitis or inflammatory bowel disease). To evaluate the impact on classification/diagnosis, we examined HLAB27-positive patients with only 2 ASAS criteria, including high CRP (the second being IBP, since it was mandatory for inclusion in DESIR cohort). Then, we calculated ASDAS-CRP score. We presented proportions of patients with ASDAS-high or very high disease activity but high CRP level possibly due to BMI only, and among those, the number concerned by a change of disease activity level when adjusting ASDAS-CRP score with minimal value for CRP (2mg/l). Among patients treated by TNFi during first 24-month follow-up, we excluded those with sacro-iliitis, and studied in others, CRP levels at last visit before treatment initiation using both thresholds. We compared proportion of ASAS40 responders using logistic regression analysis, with abnormal CRP defined after correction for BMI in patients without any sign of activity, beside other classical predictive factor of therapeutic response (age, gender, sacro-iliitis, HLAB27, psoriasis, arthritis, smoking).

Results: Data were available for 634 patients. 205 had a high CRP level using usual threshold, of which 73 (35.6%) had a high CRP possibly due to BMI alone as they had no objective sign of disease activity. There were no differences in diagnosis as no patient had as only ASAS criteria: HLAB27 associated with high CRP and IBP. ASDAS-CRP score could be calculated in 626 patients. By correcting ASDAS score for patients with high CRP possibly due to BMI, 95.3% remained with same activity level (kappa for the ASDAS levels was 0.93). For impact of CRP on indication of bDMARD, 178 patients were treated by TNFi during first 24 months of follow-up: 61% of patients had an indication of TNFi according to EMA, with usual CRP threshold, and 56% with the adjusted one. Regarding response to TNFi, there were no association between any of the 2 CRP thresholds and ASAS40 response. Only sacro-iliitis on MRI was associated with ASAS40 response.

Conclusion: Adjustment of CRP threshold according to BMI has a very limited impact on diagnosis, evaluation of disease activity of SpA, indication of TNFi initiation and prediction of TNFi response.

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Vasculitis - I

OP0054

NEW ROLE FOR PROTEINASE 3 IN IL-16 BIOACTIVITY CONTROL IN GRANULOMATOSIS WITH POLYANGIITIS

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