Table 1. Characteristics of the patients.

	All patients	Nutrition	Controls	All patients	Nutrition	Controls
	Baseline			Month 6		
Females, n, (%)	40 (36.4)	18 (38.3)	22 (34.9)			
Age, years, mean±SD	51.7±1.3	53.0±1.3	49.6±1.3			
HLA-B27 positivity, n (%)	58 (52.7)	22 (46.8)	37 (57.1)			
Psoriasis, n (%)	58 (50.7)	26 (55.3)	32 (50.8)			
Disease duration (years), mean±SD	15.3±9.7	15.7±10	15±9.5			
Duration of b/tsDMARD treatment overall, years, mean±SD	5±4.1	5.8±4.5	4.5±3.8			
NSAID, n (%)	76 (69.1)	30 (63.8)	46 (73)			
csDMARD, n (%)	14 (12.7)	5 (10.6)	9 (14.3)			
BMI, Kg/meters ² , mean±SD	26.5±5.4	26.5±4.3	26.6±6.1	26.4±5.3	26.3±4	26.6±6.1
ASDAS-CRP, mean±SD	2.1±1	2.1±0.9	2.1±1	2±1.1	1.8±0.9	2.1±1.2
BASDAI, mean±SD	37.6±23	37.4±23.2	37.7±22.9	39.3±24.1	37.3±23.6	41.2±24.6
BASFI, mean±SD	20.5±21.4	21.6±19.2	19.7±23	19.8±19.6	19.1±18.8	20.5±20.4
BASMI, mean±SD	1.6±2	1.9±2.2	1.4±1.7	1.8±2.1	1.9±2.4	1.7±1.9
Tender joint count, mean±SD	1.1±2.3	0.8±2.1	1.4±2.5	0.9±2	0.8±2	0.9±1.9
Swollen joint count, mean±SD	0.3±1.3	0.4±2	0.1±0.5	0.2±1.3	0.3±1.8	0.2±0.8
Leeds Enthesitis Index, mean±SD	0.2±0.8	0.3±1	0.2±0.6	1.1±2	1.3±2.2	1±1.8
CRP, mg/L, mean ±SD	3.4±6.2	3.2±3.9	3.7±7.4	3.5±5.6	2.6±3.1	4.1±6.9
LDL-c, mg/dl, mean ±SD	130.8±36.5	132.3±35	129.7±38.4	130.6±34.7	125.7±34.8	134.4±34.5
PREDIMED score, mean ±SD	6.7±1.8	7±2.1	6.6±1.6	7.6±2.1	8.6±1.9	6.8±2

b/tsDMARD biological/targeted synthetic DMARDs; csDMARD conventional DMARDs. PREDIMED questionnaire to assess adherence to the Mediterranean diet.

Disclosure of Interests: None declared.

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POS0957 THE PREVALENCE AND FACTORS RELATED TO SLEEP APNOEA IN ANKYLOSING SPONDYLITIS

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Background: An increased prevalence of obstructive sleep apnoea (OSA) has been suggested in ankylosing spondylitis (AS), but few controlled studies have been performed.

Objectives: We thus aimed to study the prevalence of OSA in patients with AS compared to controls and to study if disease-related and non-disease-related factors were determinants of OSA in AS patients.

Methods: One hundred and fifty-five patients with AS were included in the Backbone study that investigates severity and comorbidities in AS. Controls were recruited from the Swedish CardioPulmonary bio-Image Study (SCAPIS). Participants were asked to be examined with a home sleep-monitoring device during one night's sleep to evaluate the presence of OSA. For each AS patient, 45-70 years, four controls were matched for sex, age, weight and height. OSA was defined as an apnoea-hypopnea-index ≥5 events/hour.

Results: In total, 63/155(40.6%) patients with AS were examined with a home sleep-monitoring device out of which 46 patients were 45-70 years and therefore matched (mean age 57.2±7.5years, 30(65.2%) men) with 179 controls (mean age 57.2±4.5years, 123(68.7%) men). Twenty-two out of 46(47.8%) patients with AS vs. 91/179(50.8%) controls had OSA, p=0.72. No differences measurements evaluating OSA were noted in AS vs. controls. In logistic regression analysis, based on all 63 examined AS-patients, several AS-related variables were associated with OSA but after adjusting for age and sex, only higher age and BMI, remained to be significant determinants of OSA, Table 1.

Table 1. Univariable and age- and sex-adjusted logistic regression analyses with obstructive sleep apnoea as dependent variable in 63 patients with ankylosing spondylitis.

Variables	Univariable logistic regression analyses, Odds Ratio (95%CI)	P	Age- and sex-adjusted logistic regression analyses, Odds Ratio (95%CI)	P
Sex, male	1.9(0.6-5.5)	0.25	1.5(0.4-4.8)	0.53
Age	1.1(1.0-1.2)	0.002	1.1(1.0-1.2)	0.002
BMI	1.4(1.1-1.7)	0.001	1.6(1.2- 2.2)	0.001
Duration of symptoms	1.1(1.0-1.1)	0.028	1.0(0.9-1.1)	0.79
BASMI	1.9(1.3-2.9)	0.002	1.5(0.9 -2.5)	0.87
BASFI	1.4(1.0-2.0)	0.038	1.3(0.9-2.0)	0.88
≥1 Syndesmophyte	3.9(1.3-12.2)	0.017	3.0(0.8-11.3)	0.10
mSASS	1.0(1.0-1.1)	0.047	1.0(0.98-1.05)	0.25
Metabolic syndrome	4.3(1.5-12.9)	0.008	1.4(0.3-6.6)	0.69
Epworth Sleep Scale	1.2(1.0-1.3)	0.023	1.2(1.0-1.4)	0.29

Conclusion: In this case-control study, patients with AS did not have a higher prevalence of OSA compared to controls. AS patients with OSA had higher BMI and were older compared to patients without OSA.

Disclosure of Interests: None declared.

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POS0958 RESPONSIVENESS OF CONVENTIONAL, SEMI-AUTOMATIC AND FULL-AUTOMATIC METHODS TO QUANTIFY MARROW BONE EDEMA LESIONS IN MRI OF AXIAL SPONDYLOARTHRITIS PATIENTS: A PILOT STUDY

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Background: The presence or absence of marrow bone edema (MBE) in the sacroiliac joints (SIJ) is very important in the diagnosis of axial Spondyloarthritis (axSpA). The quantification of this lesion and its extension may be important to analyze responsiveness of the treatment. Several scoring systems have been proposed for MRI images of SIJ, some of them being observer dependent (Berlin, SPARCC). Others, works in a semi-automatically way, such as the s-SCAISS[1], which makes it possible to quantify the size of the lesion, based on the indication of the expert. Recently, methods like the KITS4R[2], based on a deep patch-based classification network, allow a fully automated detection and quantification of the MBE lesions.

Objectives: To analyze responsiveness of several scores (observer independent, semiautomatic and full automatic) to quantify MBE in SIJ of axSpA patients.

Methods: Two rheumatologists independently quantified SIJ images from axSpA patients by visual inspection methods (Berlin and SPARCC indexes) and a semi-automatic system (s-SCAISS) on a single semi-coronal MRI slide (STIR). Full semi-coronal MRI images (15 to 18 slices) were used for an automatic detection algorithm (KITS4R), where total MBE was calculated as sum of areas of MBE in each slice. Patients were assessed before TNF-α therapy (PRE) and 3 months later (POST). Spearman correlations was used to analyze relationship between variables, Wilcoxon signed-rank test for significant differences and Cohen's d for calculating the effect size of improvement. Figure 1 shows processing of the MRI images: A) Area of MBE selected by the SCAISS, when the rheumatologist "click" on each MBE; B) Lesions detected automatically by KITS4R; C) Automated deep segmentation of bones and subchondral regions (with split into quadrants with central axes of joints also shown). D) Superposed A, B and C images.