Conclusion: This study suggested that long-term use of NSAIDs was associated with a small but significant decrease in GFR in patients with AS with normal initial renal function.

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Table 1. Effect of covariates on eGFR decline

		Model 1†				Model 2‡			
		Beta	95% CI		p-value	Beta	95% CI		p-value
			LB	UB			LB	UB	
Stage 1	Intercept	-0.684	-0.980	-0.389	**<0.001**	-0.387	-0.770	-0.004	**0.048**
	Baseline GFR	-0.066	-0.080	-0.053	**<0.001**	-0.066	-0.080	-0.053	**<0.001**
	NSAID MPR	-0.005	-0.008	-0.001	**0.008**				
	NSAID MPR tertile								
	1st tertile (<12)								**0.030**
	2nd tertile (≥12, <96)					-0.352	-0.720	0.016	0.061
	3rd tertile (≥96)					-0.519	-0.906	-0.132	**0.009**
Stage 2	Intercept	-0.297	-3.155	2.561	0.837	0.378	-2.473	3.229	0.794
	Baseline GFR	-0.063	-0.144	0.017	0.122	-0.064	-0.145	0.017	0.117
	NSAID MPR	-0.010	-0.025	0.006	0.211				
	NSAID MPR tertile								
	1st tertile (<12)								**<0.001**
	2nd tertile (≥12, <96)					-1.257	-2.024	-0.489	**0.001**
	3rd tertile (≥96)					-1.862	-2.676	-1.049	**<0.001**

†Model 1 consisted of GFR at baseline, NSAID MPR, other covariates and random effect for patient‡Model 2 consisted of GFR at baseline, tertile of NSAID MPR, other covariates and random effect for patient

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POS0675

LOW RATE OF SWITCHING FROM NR-AXSPA TO R-AXSPA AFTER 10 YEARS OF FOLLOW UP IN EARLY AXIAL SPONDYLOARTHRITIS. DATA FROM DESIR COHORT

Keywords: Imaging, Spondyloarthritis, Prognostic factors

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Background: Previous evidence suggests that radiographic progression occurs slowly in the sacroiliac joints (SIJ) of patients with axial spondyloarthritis and that bone marrow edema (BME) on MRI-SIJ can, at least in part, explain such progression. However, information about the long-term course of radiographic structural damage at the SIJ level in patients with early axSpA is still scarce.

Objectives: To evaluate the proportion of patients switching from non-radiographic axSpA (nr-axSpA) to radiographic axSpA (r-axSpA) after 10 years of follow-up and whether BME on MRI-SIJ at baseline is associated with the r-axSpA status over time.

Methods: Patients with ≤3 years axSpA onset (according to the treating rheumatologist) from the DESIR cohort were included. The radiographic status of the patients (r-axSpA versus nr-axSpA) was based on the fulfillment of the mNY criteria (i.e. at least a bilateral grade 2 or a unilateral grade 3 on pelvic radiographs according to 2 out of 3 central readers). BME on MRI-SIJ was defined as positive ASAS definition according to 2 out 3 central readers at baseline. Information on mNY criteria was obtained in four reading waves: wave 1 (baseline (BL), wave 2 (BL and 2Y), wave 3 (BL, 2 and 5Y) and wave 4 (BL, 5 and 10Y). Images were scored by 3 trained central readers (wave 1: 2 readers + adjudicator), all of them unaware of the chronology of the images and the results of the other modality. A "progressor" was defined as a patient switching from nr-axSpA to r-axSpA. A "regressor" was defined as a patient switching from r-axSpA to nr-axSpA. The % of mNY net progressors (i.e. number of "progressors" minus number of "regressors" divided by the total number of patients) was assessed in "completers" (i.e., with pelvic radiographs available at BL and 10y in wave 4). A sensitivity analysis was conducted using a multilevel GEE model ('integrated analysis') that included all waves from all patients with at least one available mNY score from at least one reader available ("intention-to-follow" population). From this model, we estimated the absolute change per year in the percentage of mNY-positive cases with and without adjusting for the use of anti-TNF drugs. Finally, the effect of BME on MRI-SIJ at baseline on mNY positivity over 10 years, adjusting for potential confounders (Figure 1) were evaluated in a multivariable GEE model in the "intention-to-follow" population.

Results: Completers included 299 patients (mean age 34.5Y and 48.2% males), while the intention-to-follow population included 704 participants (mean age 33.7Y and 46.2% males). In the completers, the net % of progressors (switch from nr-axSpA to r-axSpA) was 5.7%. In the intention-to-follow population, there was a 0.91% (95%CI 0.60-1.20) increase per year in the probability of being mNY-positive (i.e. a progression of 9.1% after 10Y). After adjusting for anti-TNF use, this percentage decreased to 0.48% (95%CI 0.15-0.82) per year. The HLA-B27 status modified the association between BME on MRI-SIJ at baseline and mNY-positivity over 10 years (interaction p-value: <0.001). BME on MRI-SIJ was associated with being mNY positive over time in both HLA-B27 positive (OR 6.25 (95%CI 5.36-7.30)) and HLA-B27 negative patients (OR 3.03 (95%CI 2.42-3.80)), but the association was stronger in the former (Figure 1). In addition, male sex, symptom duration >1.5Y, ASDAS >2.1 (in HLA-B27 negatives) and smoking (in HLA-B27 positives) were also associated with being mNY-positive over 10 years.

Conclusion: Patients with early axSpA have a low likelihood of changing from nr-axSpA to r-axSpA over 10 years, especially when considering the use of anti-TNF. Local inflammation on MRI-SIJ is strongly associated damage accrual in the SIJ over time, in particular in patients who are HLA-B27 positive.

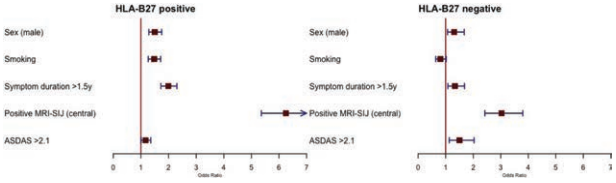

Figure 1. Baseline characteristics associated with radiographic sacroiliitis after 10 years of follow-up in axSpA patients with early onset (multivariable integrated analysis using four DESIR reading waves and stratified on HLA-B27).

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POS0676

THE CHALLENGE OF IDENTIFYING DIFFICULT-TO-TREAT AXIAL SPONDYLOARTHRITIS IN CLINICAL PRACTICE: RESULTS FROM LA PAZ-SPA COHORT

Keywords: Treat to target, Spondyloarthritis

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Background: Despite pharmacological options for axial spondyloarthritis (axSpA) have increased recently, still one out of three patients do not achieve the recommended target [1].

Objectives: To determine patient and disease characteristics in patients with "difficult to treat" (D2T) axSpA in comparison with "good responders" (GR) and to identify predictive factors of D2T-axSpA.

Methods: Data from an observational prospective cohort recruiting consecutively patients diagnosed of axSpA initiating the first bDMARD from La Paz Hospital between 2004-2019 were analysed. Patients who fulfilled one of the following definitions were included: i) D2T: failure to at least two b/tsDMARDs, ii) GR: patients