Given the wide use of Acemetacin in AS and relative lack of clinical evidence on the selection of NSAIDs in the treatment of AS, the investigation on acemetacin treating AS is of great significance.

Objectives: Our study aims to investigate efficacy and safety of acemetacin in the treatment of AS.

Methods: Data on efficacy and safety is available in 1215 patients from the Chinese Ankylosing Spondylitis Imaging Cohort (CASPIC), which is collected through the Smart-phone SpondyloArthritis Management System (SpAMS)^[1]. Patients' self-assessments are completed online at baseline and every subsequent clinic visit. Physician-reported assessments, laboratory tests, and treatments were recorded by rheumatologists at every clinic visit.

Results: 1215 patients with AS were registered, of whom 992 were treated with acemetacin and 123 were treated with other NSAIDs. The results showed that total back pain and BASFI were significantly improved after three-month treatment of acemetacin, while comparing to other NSAIDs ($P=0.027$ and 0.015 , respectively). After six-month treatment, patients taking acemetacin showed greater improvement in PGA ($P=0.013$), total back pain ($P=0.049$), night back pain ($P=0.047$), BASFI ($P=0.042$), ASDAS ($P=0.007$) and CRP ($P=0.032$) compared to those taking other NSAIDs. During the follow-up periods, no serious adverse events were reported. Mild abnormal liver function occurred in nine patients (9/992) treated with acemetacin and in six patients treated with other NSAIDs (6/123). See Table 1 for details.

Conclusion: Acemetacin showed better efficacy and acceptable safety profile in the treatment of active ankylosing spondylitis comparing with other NSAIDs.

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Table 1. The comparison of two groups at 0, 3 and 6 months after treatment

	Baseline		3 months		6 months	
	95%CI	P	95%CI	P	95%CI	P
PGA	-0.13(-0.49, 0.24)	0.494	-0.28(-0.74, 0.18)	0.235	-0.59(-1.06, -0.11)	0.013*
Total back pain	-0.03(-0.37, 0.32)	0.889	-0.50(-0.94, -0.06)	0.027*	-0.44(-0.88, -0.002)	0.049*
Night back pain	0.01(-0.36, 0.38)	0.956	-0.30(-0.75, 0.16)	0.203	-0.46(-0.91, -0.006)	0.047*
BASFI	-0.30(-0.59, 0.004)	0.053	-0.55(-0.99, -0.11)	0.015*	-0.34(-0.67, -0.01)	0.042*
ASDAS	-0.10(-0.29, 0.08)	0.287	-0.15(-0.46, 0.16)	0.342	-0.41(-0.70, -0.11)	0.007*
CRP	-4.39(-8.87, 0.10)	0.055	0.91(-10.39, 12.21)	0.874	-7.86(-15.03, -0.68)	0.032*

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1958

POS0922

NON-STEROIDAL ANTI-INFLAMMATORY DRUG USE IS ASSOCIATED WITH DISEASE ACTIVITY AND REDUCED SIGNIFICANTLY IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS TREATED WITH TUMOR NECROSIS FACTOR INHIBITORS; DATA FROM A REAL LIFE EXPERIENCE

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Background: Non-steroidal anti-inflammatory drugs (NSAIDs) is the first line treatment option in axial spondyloarthritis (axSpA) patients suffering from pain and stiffness. However there is only limited data regarding the concomitant use of NSAIDs during tumour necrosis factor inhibitor (TNFi) treatment.

Objectives: To evaluate longitudinal concomitant NSAIDs use with the TNFi treatment and the determinant of the ASAS-NSAID index in patients with axSpA.

Methods: In total 429 axSpA patients (253 [59%] male; 272 [63%] with AS and 157 [37%] with non-radiographic (nr)-axSpA) who have followed up one year were included in this observational study. The data regarding disease activity and serum CRP levels were collected on 12, 24 and 52nd week. At each visit NSAID usage, type, dosage and frequency were recorded in order to calculate ASAS-NSAID index. The longitudinal relationship between NSAID-index and other factors tested by using generalized estimating equations (GEE) which is a technique for longitudinal data analysis allowing the use of all available data even deviated from normality.

Results: At baseline 127/138 (92%) patients starting TNFi and 239/291 (82%) conventionally treated patients were using NSAID. Both the rate ($p=0.007$) and the median (IQR) ASAS-NSAID index were higher in biologic treatment group (100 [50] vs 70.8 [89.4]; $p<0.001$). During follow-up ASAS-NSAID index was decreased significantly in patients treated with TNFi (median 100 to 8.0; $p<0.001$), however ASAS-NSAID index was not changed in conventionally treated patients

($p=0.154$) (Figure 1). In univariate longitudinal analysis revealed that ASAS-NSAID index was significantly associated with BASDAI, ASDAS, BASFI scores and patient global assessment of disease activity, serum levels of CRP and education. We established two multivariable models (Table 1) to assess the associated factors/covariates with ASAS-NSAID index over time (one with ASDAS and the other BASDAI+CRP as disease activity index) and showed that BASDAI and patient global assessment of disease activity were independent determinants of NSAID dosage in biologic treated patients. However, in multivariate analysis there was no significant predictor for NSAID index in conventional treatment group.

Conclusion: Our results showed that NSAID prescription was significantly higher in axSpA patients who have TNFi indication. NSAID use was decreased significantly over time with TNFi and still independently determined by disease activity. However, it is stable in conventionally treated axSpA patients.

Table 1. The factors associated with ASAS-NSAID index in biologic treated patients

	Model 1			Model 2		
	B	95%CI	p	B	95% CI	p
BASFI	-0.55	-4.384; 4.275	0.980	0.943	-3.795; 5.682	0.696
BASMI	0.951	-1.511; 3.413	0.449	-0.098	-2.430; 2.234	0.934
PGA	0.535	0.210; 0.860	0.001	0.759	0.432; 1.086	0.000
CRP	-0.068	-0.220; 0.084	0.380			
BASDAI	5.718	2.487; 8.949	0.001			
ASDAI-CRP				1.771	-6.571; 10.113	0.677

PGA: Patient global assessment

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1961

POS0923

INFLUENCE OF BASELINE DEMOGRAPHICS ON IMPROVEMENTS IN DISEASE ACTIVITY MEASURES IN PATIENTS WITH ANKYLOSING SPONDYLITIS RECEIVING UPADACITINIB: A POST HOC SUBGROUP ANALYSIS OF SELECT-AXIS 1

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Background: Upadacitinib (UPA), an oral Janus kinase inhibitor, has demonstrated efficacy and safety through 14 weeks in the SELECT-AXIS 1 study in biologic disease-modifying antirheumatic drug-naïve patients with active ankylosing spondylitis (AS).¹

Objectives: To evaluate the efficacy of UPA 15mg once daily (QD) in selected subgroups of patients with AS based on different baseline characteristics.

Methods: In SELECT-AXIS 1, patients were randomized to 14 weeks of blinded treatment with UPA 15mg QD or placebo (PBO). This post hoc analysis evaluated the proportions of patients achieving $\geq 40\%$ improvement in Assessment of SpondyloArthritis International Society criteria (ASAS40), $\geq 50\%$ improvement in the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI50), and change from baseline in Ankylosing Spondylitis Disease Activity Score with C-reactive protein (ASDAS[CRP]) at Week 14 across subgroups based on the following baseline patient characteristics: gender, age, body mass index, AS symptom duration, C-reactive protein (CRP) levels, Spondyloarthritis Research Consortium of Canada Magnetic Resonance Imaging index, and human leukocyte antigen B27 status. For missing data, non-responder imputation analysis was used for ASAS40 and BASDAI50, and mixed model repeated measures analysis was used for ASDAS[CRP].

Results: Baseline disease characteristics were balanced between the treatment groups at randomization, as previously reported.¹ ASAS40 and BASDAI50 response rates at Week 14 were numerically higher with UPA 15mg versus PBO across the demographic and disease characteristic subgroups evaluated (Figure 1), including some subgroups with small sample sizes, such as patients with disease duration < 5 years and female patients. Improvements from baseline in ASDAS[CRP] were also consistently greater with UPA 15mg versus PBO across the subgroups evaluated (Table 1).

Conclusion: Within subgroups evaluated, most patients with active AS receiving UPA 15mg demonstrated greater improvements versus PBO in disease activity measures assessed by ASAS40, BASDAI50, and change from baseline in ASDAS[CRP]. There was some evidence that gender, AS symptom duration, and baseline CRP levels seemed to influence outcomes, though results should be interpreted with caution due to small sample sizes for some subgroups.

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Table 1. PBO-corrected mean change from baseline (95% CI) in ASDAS[CRP] at Week 14 in patients receiving UPA 15 mg by baseline subgroups (MMRM)

Subgroup		n		ASDAS[CRP]
		UPA 15 mg	PBO	
Gender	Male	58	62	-1.11 (-1.37, -0.84)
	Female	26	22	-0.44 (-0.92, 0.03)
Age	< 40 years	24	36	-1.00 (-1.42, -0.58)
	40– < 65 years	51	46	-0.88 (-1.17, -0.59)
Body mass index	< 25 kg/m ²	32	37	-0.92 (-1.30, -0.55)
	≥ 25 kg/m ²	52	47	-0.89 (-1.20, -0.59)
AS symptom duration	< 5 years	16	17	-0.90 (-1.46, -0.34)
	≥ 5 years	68	67	-0.92 (-1.18, -0.66)
Baseline hsCRP	≤ 2.8 mg/L	23	19	-0.59 (-1.02, -0.15)
	> 2.8 – < 10 mg/L	39	34	-0.59 (-0.95, -0.23)
	≥ 10 mg/L	22	31	-1.64 (-2.01, -1.27)
Inflammation based on SPARCC MRI scores	Positive ^a	56	57	-0.98 (-1.27, -0.69)
	Negative ^b	21	16	-0.60 (-1.08, -0.12)
HLA-B27 status	Positive	62	66	-0.97 (-1.24, -0.71)
	Negative	20	17	-0.73 (-1.28, -0.17)

^aSpine SPARCC score ≥ 2 or sacroiliac joint SPARCC score ≥ 2 . ^bSpine SPARCC score < 2 and sacroiliac joint SPARCC score < 2 . ASDAS[CRP], Ankylosing Spondylitis Disease Activity Score with C-reactive protein; CI, confidence interval; HLA-B27, human leukocyte antigen B27; hsCRP, high-sensitivity C-reactive protein; MMRM, mixed model repeated measures; MRI, magnetic resonance imaging; PBO, placebo; SPARCC, Spondyloarthritis Research Consortium of Canada; UPA, upadacitinib.

Figure Response rate difference for UPA versus PBO (95% CI) for ASAS40 and BASDAI50 responses at Week 14 in patients receiving UPA 15 mg by baseline subgroups (non-responder imputation)

^aSpine SPARCC score ≥ 2 or sacroiliac joint SPARCC score ≥ 2 . ^bSpine SPARCC score < 2 and sacroiliac joint SPARCC score < 2 . AS, ankylosing spondylitis; ASAS40, $\geq 40\%$ improvement in Assessment of SpondyloArthritis International Society criteria; BASDAI50, $\geq 50\%$ improvement in Bath Ankylosing Spondylitis Disease Activity Index; BMI, body mass index; CI, confidence interval; HLA-B27, human leukocyte antigen B27; hsCRP, high-sensitivity C-reactive protein; MRI, magnetic resonance imaging; PBO, placebo; SPARCC, Spondyloarthritis Research Consortium of Canada; UPA, upadacitinib.

Acknowledgements: AbbVie funded this study; contributed to its design; participated in data collection, analysis, and interpretation of the data; and participated in the writing, review, and approval of the abstract. No honoraria or payments were made for authorship. Medical writing support was provided by Laura Chalmers, PhD, of 2 the Nth (Cheshire, UK), and was funded by AbbVie.

Disclosure of Interests: Filip van den Bosch Speakers bureau: AbbVie, Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, MSD, Novartis, Pfizer, and UCB, Consultant of: AbbVie, Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, MSD, Novartis, Pfizer, and UCB, Grant/research support from: AbbVie, Janssen, and UCB, Denis Poddubnyy Speakers bureau: AbbVie, Celgene, Eli Lilly, MSD, Novartis, Pfizer, Roche, and UCB, Consultant of: AbbVie, Celgene, Eli Lilly, MSD, Novartis, Pfizer, Roche, and UCB, Jayne Stigler Employee of: AbbVie employee and may own stock or options, Andrew Ostor Speakers bureau: AbbVie, Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, MSD, Novartis, Pfizer, Roche, Sanofi, and UCB, Salvatore D'Angelo Speakers bureau: AbbVie, Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, MSD, Novartis, Pfizer, and UCB, Consultant of: AbbVie, Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, MSD, Novartis, Pfizer, and UCB, Victoria Navarro-Compán Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, MSD, Novartis, Pfizer, Roche, and UCB, Consultant of: AbbVie, Bristol-Myers Squibb, Eli Lilly, Janssen, MSD, Novartis, Pfizer, Roche, and UCB, In-Ho Song Employee of: AbbVie employee and may own stock or options, Tianming Gao Employee of: AbbVie employee and may own stock or options, Fabiana Ganz Employee of: AbbVie employee and may own stock or options, Lianne S. Gensler Consultant of: AbbVie, Eli Lilly, Gilead, GSK, Novartis, Pfizer, and UCB, Grant/research support from: Pfizer and UCB

DOI: 10.1136/annrheumdis-2021-eular.1975

POS0924

PREDICTORS OF 1-YEAR TREATMENT RESPONSE AMONG UPADACITINIB-TREATED PATIENTS WITH ANKYLOSING SPONDYLITIS: A POST HOC ANALYSIS OF SELECT-AXIS 1

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Background: Upadacitinib (UPA) is an oral Janus kinase inhibitor that has demonstrated efficacy and safety among patients with ankylosing spondylitis (AS) in the phase 2/3 SELECT-AXIS 1 study.¹ If identified, early predictors of treatment response may inform treat-to-target strategies and optimize patient outcomes in AS.