Table 1. Patient characteristics and outcome scores in the propensity score matched population at index.

	TNFI (n=94)	IL-17ai (n=48)	p value
BMI category Underweight	2 (2%)	1 (2%)	0.094
Normal weight	33 (35%)	8 (17%)	
Overweight	24 (26%)	16 (33%)	
Obese	27 (29%)	21 (44%)	
Missing	8 (9%)	2 (4%)	
Duration of treatment (months), mean (SD)	61.0 (156.7)	23.7 (20.1)	0.18
BASDAI <4	43 (46%)	23 (48%)	0.89
BASDAI >4	16 (17%)	8 (17%)	
Missing	35 (37%)	17 (35%)	
ISI score, mean (SD)	9.1 (6.6)	8.9 (5.9)	0.83
ISI category (n %)			0.83
No clinically significant insomnia	44 (57%)	24 (50%)	
Subthreshold insomnia	30 (32%)	15 (31%)	
Clinical insomnia (moderate)	15 (16%)	8 (17%)	
Clinical insomnia (severe)	5 (5%)	1 (2%)	
MAPI score, mean (SD)	0.3 (0.2)	0.4 (0.3)	0.046
MAPI, high apnoea risk Yes	17 (18%)	16 (33%)	0.051
No	62 (66%)	26 (54%)	
Missing	15 (16%)	6 (12%)	

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POS0907

EFFECT OF UPADACITINIB ON REDUCING PAIN IN PATIENTS WITH ACTIVE ANKYLOSING SPONDYLITIS AND INADEQUATE RESPONSE TO NONSTEROIDAL ANTI-INFLAMMATORY DRUGS

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Background: Pain is a debilitating symptom of ankylosing spondylitis (AS) and negatively impacts patient (pt) lives. Upadacitinib (UPA), a Janus kinase (JAK) inhibitor engineered for increased selectivity for JAK1 over JAK2, JAK3, and tyrosine kinase 2, ¹ showed significant efficacy vs placebo (PBO) in the randomized phase 2/3 SELECT-AXIS 1 study in active AS.²

Objectives: To evaluate the efficacy of UPA on multiple pain assessments through 64 weeks (wks).

Methods: SELECT-AXIS 1 (NCT03178487) enrolled adults with active AS, who had an inadequate response, intolerance or contraindications to ≥ 2 NSAIDs, were biologic DMARD naive and met the modified New-York Criteria. Pts were randomized 1:1 to UPA 15 mg once daily (QD, n=93) or PBO (n=94) for 14 wks (Period 1), followed by open-label UPA 15 mg QD during 90-wk extension (Period 2); reported here are data through wk 64. Pain endpoints included the proportion of pts achieving $\geq 30\%/ \geq 50\%/ \geq 70\%$ reduction in Pt's Global Assessment (PGA) of pain on a 0–10 numeric rating scale (NRS), minimal clinically important difference (MCID, defined as ≥ 1 point reduction or $\geq 15\%$ reduction from baseline [BL]) in PGA of pain, and much better improvement (MBI, defined as ≥ 2 point reduction and $\geq 33\%$ reduction from BL) in PGA of pain. In addition, mean change from baseline in PGA of pain, BASDAI questions 2 (neck/back/hip pain) and 3 (peripheral pain/swelling), and pt's assessment of back pain and nocturnal back pain NRS scores (NRS 0–10) were assessed. Non-responder imputation (binary endpoints) and mixed-effects model for repeated measurements (continuous endpoints) were used

for missing data/dropouts in Period 1; as-observed analysis was used for Period 2.

Results: A significantly higher proportion of pts receiving UPA vs PBO achieved reductions in all PGA of pain assessments as early as wk 2 that was sustained at all time points in Period 1; the only exception was $\geq 70\%$ reduction in PGA of pain that was significant at wk 4 and sustained thereafter (Figure 1). For $\geq 30\%/ \geq 50\%/ \geq 70\%$ reduction and MBI, the response rate increased over time with UPA; the difference for UPA vs PBO also continued to increase over time for $\geq 50\%$ and $\geq 70\%$ reduction endpoints. For MCID, an increase from BL to wk 2 was observed and plateaued thereafter. The mean change from BL in PGA of pain, BASDAI Q2, back pain, and nocturnal back pain NRS scores were significantly greater for UPA vs PBO at all time points in Period 1; BASDAI Q3 was significant at wk 8 and 14 (Figure 1). The effect of UPA on pain reduction was sustained through wk 64. PBO pts who switched to open-label UPA at wk 14 generally reached the same level of pain reduction as those initially randomized to UPA (Figure 1).

Conclusion: In pts with active AS and an inadequate response/contraindication to NSAIDs, a greater proportion of patients treated with UPA achieved rapid, significant, and clinically meaningful reductions in pain vs PBO through 14 wks across multiple pain assessments. The reductions in pain were sustained over time, and pts who switched from PBO to UPA reached the same level of improvement as the continuous UPA group.

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Figure. Proportion of Patients Achieving Pain Endpoints ($\geq 30\%/50\%/70\%$ Reduction from Baseline and MBI or MCID in PGA of Pain) and Mean Change from Baseline in PGA of Pain, BASDAI Q2 and Q3, Back Pain, and Nocturnal Back Pain

AO, as observed; MBI, much better improvement; MCID, minimal clinically important difference; MMRM, mixed-effects model for repeated measurements; NRI, non-responder imputation; NRS, numeric rating scale; PGA, patient's global assessment; UPA, upadacitinib. Dashed line: all patients randomized to placebo received open-label UPA starting from week 14. UPA vs PBO comparison was calculated using Cochran-Mantel-Haenszel test adjusting for stratification factor of high-sensitivity CRP level; nominal P values: ***P<0.01; **P<0.05. Patient's Global Assessment of Pain based on: "How much pain have you had because of your condition during the last week?" BASDAI Q2 based on a question: "How would you describe the overall level of AS neck, back or hip pain you have had?" BASDAI Q3 based on a question: "How would you describe the overall level of pain/swelling in joints other than neck, back or hips, you have had?" Patient's assessment of back pain based on question: "What is the amount of back pain that you experienced at any time during the last week?" Patient's assessment of nocturnal back pain based on a question: "What is amount of back pain at night that you experienced during the last week?"

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POS0908

EFFICACY OF IXEKIZUMAB THROUGH 52 WEEKS FOR IMPROVING PERIPHERAL JOINT INVOLVEMENT AMONG PATIENTS WITH RADIOGRAPHIC-AXIAL SPONDYLOARTHRITIS

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Background: Radiographic-axial spondyloarthritis (r-axSpA) is a progressive chronic inflammatory disease primarily affecting the spine and sacroiliac joints. However, about 30-40% of patients (pts) with axSpA can have peripheral joint involvement, including joint tenderness and swelling, which can contribute significantly to burden of disease. Ixekizumab (IXE), a monoclonal antibody that neutralizes the pro-inflammatory cytokine interleukin-17A, has demonstrated a high level of efficacy in the treatment of r-axSpA.

Objectives: The aim of this study is to evaluate the efficacy of IXE through 52 weeks (wks) in improving peripheral joint pain and swelling for pts with r-axSpA.

Methods: Data was derived from two phase III randomised, double-blind, placebo (PBO)-controlled trials: one in pts with r-axSpA, who were biological disease-modifying anti-rheumatic drug (bDMARD)-naïve (COAST-V: NCT02696785), and the other in pts who were tumor necrosis factor inhibitor-experienced (COAST-W: NCT02696798). All pts had a confirmed diagnosis of r-axSpA and had to meet ASAS (Assessment of SpondyloArthritis international Society) criteria. IXE (80 mg) or PBO were administered subcutaneously every 2 (Q2W) or 4 (Q4W) wks during a 52-wk treatment period, after receiving a starting dose of 80 mg or 160 mg at wk 0. COAST-V/W pts originally randomised to PBO were re-randomised 1:1 to IXE Q4W or Q2W at wk 16. We present a post-hoc analysis of data from an integrated dataset from COAST-V and W (COAST-V/W); with intent to treat (ITT) pts categorized by baseline (BL) peripheral joint status. The presence of peripheral joint involvement was defined using a 46-joint tender joint count (TJC) >0 or 44-joint swollen joint count (SJC) >0. Treatment response through wk 52 was evaluated based on % improvement (20%, 50% or 70%) and resolution of tender or swollen joints of pts with BL TJC>0 or SJC>0, respectively. Missing data were imputed by non-responder imputation (NRI). Treatment comparison vs PBO at wk 16 was performed using Cochran-Mantel-Haenszel test.

Results: This analysis includes 359 pts (63.4% of ITT) with baseline TJC>0 and 203 pts (35.9% ITT) with baseline SJC>0. The mean (SD) baseline TJC and SJC were 7.7 (8.3) and 4.3 (4.5), respectively. Mean BL TJC and SJC values by treatment group are presented in Table 1. A significant improvement of SJC by 20% and 50% was seen in pts treated with IXE Q4W compared to PBO at wk 16. Pts treated with IXE resulted in a numerically higher improvement in TJC and SJC symptoms up to wk 16 compared to PBO, and efficacy was sustained up to wk 52 (Table 1). A higher proportion of IXE-treated pts achieved high-hurdle efficacy endpoints (50% and 70% improvements) in comparison to PBO at wk 16 (Table 1). Over this time period, IXE treatment led to a high proportion of pts experiencing complete resolution of TJC or SJC vs PBO at wk 16, which was sustained up to wk 52 (Fig 1).

Conclusion: In this post hoc analysis, pts with r-axSpA treated with IXE showed substantial improvement in peripheral joint pain and swelling.

Table 1. Improvement of Tender or Swollen Joint Counts for pts with radiographic-axSpA with TJC>0 or SJC>0 at baseline (COAST-V/W)^a - NRI Results

% Improvement		Radiographic-AxSpA				
Wk		16		52 ^b		
		PBO	IXE Q4W	IXE Q2W	IXE Q4W	IXE Q2W
N (TJC>0)		116	129	114	129	114
BL TJC mean (SD)		7.4 (8.8)	8.4 (8.4)	7.3 (7.5)		
%TJC improvement	20%	66.4	75.2	71.1	68.2	72.8
	50%	52.6	61.2	64.9*	65.1	67.5
	70%	37.9	47.3	50	55.8	54.4
N (SJC>0)		67	72	64	72	64
BL SJC mean (SD)		3.8 (4.6)	5.2 (5.2)	3.8 (3.3)		
%SJC improvement	20%	64.2	83.3*	76.6	77.8	78.1
	50%	56.7	77.8†	70.3	75	76.6
	70%	46.3	62.5	60.9	69.4	71.9

Abbreviations: COAST-V/W= integrated COAST-V and COAST-W; PBO = placebo; IXE= ixekizumab; Q4W = 80 mg IXE every 4 wks; Q2W = 80 mg IXE every 2 wks^aImprovement in the number of tender or swollen joints were summarized on ITT patients who had tender (TJC>0) or swollen (SJC>0) joints at baseline, respectively^bCOAST-V/W PBO data are not available at wk 52 as pts originally randomised to PBO were re-randomised 1:1 to IXE Q4W or IXE Q2W at wk 16p-value vs. PBO at wk 16: *P<0.05, †P<0.01, ‡P<0.001

Figure 1. Complete Resolution of Tender or Swollen Joint Counts for pts with radiographic-axSpA with TJC>0 or SJC>0 at baseline (COAST-V/W) - NRI Results

Figure Legend

Abbreviations: COAST-V/W= integrated COAST-V and COAST-W; PBO = placebo; IXE= ixekizumab; Q4W = 80 mg IXE every 4 wks; Q2W = 80 mg IXE every 2 wks

^aComplete Resolution in the number of tender or swollen joints were summarized on ITT patients who had tender (TJC>0) or swollen (SJC>0) joints at baseline, respectively

^bCOAST-V/W PBO data are not available at wk 52 as patients originally randomised to PBO were re-randomised 1:1 to IXE Q4W or IXE Q2W at wk 16 p-value vs. PBO at wk 16: *P<0.05, †P<0.01, ‡P<0.001

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