adalimumab tapering at 6 months' remission and 2 cases initiated adalimumab tapering at 9–12 months' remission. No patients had recurrent uveitis at 12 months' remission or longer in both groups. Adalimumab plus MTX were well tolerated in all patients.

Conclusions: For maintaining remission of SpA-related uveitis, adalimumab tapering can be effective when combined with MTX. Initiation of the tapering after 12 months' remission largely lower the rate of recurrence.

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THU0352 TOFACITINIB TREATMENT IS ASSOCIATED WITH ATTAINMENT OF THE MINIMALLY IMPORTANT REDUCTION IN AXIAL MRI INFLAMMATION IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Tofacitinib is an oral Janus kinase inhibitor. The minimally important changes (MICs) for the SPondyloArthritis Research Consortium of Canada (SPARCC) MRI sacroiliac joint (SIJ) and spine scores based on agreement with global change scores by readers are ≥ 2.5 and ≥ 5 , respectively.¹

Objectives: To assess whether MIC in SIJ and spine can discriminate between tofacitinib and placebo (PBO) in patients (pts) with ankylosing spondylitis (AS) and if this is concordant with clinical responses.

Methods: In this 16-week (wk), Phase 2, double-blind, dose-ranging study (NCT01786668),² 207 adult pts meeting modified New York AS criteria were randomised 1:1:1 to PBO or tofacitinib 2, 5 or 10 mg twice daily (BID) for 12 wks. Clinical endpoints included in this post-hoc analysis were: Assessment of SpondyloArthritis International Society 20% improvement (ASAS20) and ASAS 40% improvement (ASAS40) response rates, AS disease activity score major improvement (ASDAS MI; change ≥ 2.0 from baseline), ASDAS inactive disease (ASDAS ID; < 1.3), Bath AS disease activity index (BASDAI), Bath AS functional index (BASFI) and back pain. Pts (%) achieving MIC in SIJ, spine and both SIJ and spine, in tofacitinib and PBO groups, were summarised based on observed data, and pooled tofacitinib (5 and 10 mg BID) vs PBO data were compared using Fisher's exact test. Concordance between achieving MIC and Wk 12 clinical responses was assessed. Wk 12 clinical responses were compared between pts achieving/not achieving MIC.

Results: MRI data for 164 pts were evaluated. Baseline demographics were generally balanced between treatment groups and typical of AS populations.² Tofacitinib 2, 5 and 10 mg BID improved mean (range) SPARCC scores vs PBO (SIJ: -2.2 [-22.0, 10.5], -3.5 [-34.5, 11.0], -3.6 [-29.0, 0.5] vs -0.7 [-9.5, 6.5]; spine: -3.2 [-34.5, 20.5], -5.5 [-36.5, 8.0], -6.7 [-32.5, 7.5] vs -0.8 [-8.0, 14.0]). Approximately 3 times more pts achieved MIC in SIJ or spine in the pooled tofacitinib group vs PBO (SIJ: 34.1% vs 11.8%, $p < 0.05$; spine: 38.6% vs 11.8%, $p < 0.01$). Achieving MIC in SIJ and spine correlated with clinical response. In pts on tofacitinib, ASAS20, ASAS40 and ASDAS MI responses were more likely in pts achieving MIC in SIJ or spine (Table) vs not achieving MIC. Compared with not achieving MIC, pts on tofacitinib achieving MIC in SIJ had larger improvements in BASDAI, BASFI and back pain.

Conclusions: Pts who received tofacitinib who had AS experienced clinically meaningful reductions in axial MRI inflammation. Pts achieving MIC for MRI inflammation had increased clinical response rates.

References:

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Table. Relationship between Wk 12 clinical response rates and achievement of MIC

	ASAS20 n/N (%)	ASAS40 n/N (%)	ASDAS MI n/N (%)	ASDAS ID n/N (%)
Placebo				
SIJ $\geq$ MIC (2.5)	3/4 (75.0)	1/4 (25.0)	0/4	0/4
SIJ $<$ MIC (2.5)	14/29 (48.3)	6/29 (20.7)	3/28 (10.7)	3/28 (10.7)
Spine $\geq$ MIC (5)	3/4 (75.0)	2/4 (50.0)	2/4 (50.0)	1/4 (25.0)
Spine $<$ MIC (5)	14/29 (48.3)	5/29 (17.2)	1/28 (3.6)	2/28 (7.1)
Tofacitinib 2 mg BID				
SIJ $\geq$ MIC (2.5)	9/12 (75.0)	7/12 (58.3)	5/12 (41.7)	2/12 (16.7)
SIJ $<$ MIC (2.5)	15/29 (51.7)	12/29 (41.4)	3/30 (10.0)	4/30 (13.3)
Spine $\geq$ MIC (5)	11/12 (91.7)	8/12 (66.7)	4/12 (33.3)	3/12 (25.0)
Spine $<$ MIC (5)	13/28 (46.4)	11/28 (39.3)	4/29 (13.8)	3/29 (10.3)
Tofacitinib 5 mg BID				
SIJ $\geq$ MIC (2.5)	15/17 (88.2)	10/17 (58.8)	6/17 (35.3)	2/17 (11.8)
SIJ $<$ MIC (2.5)	21/25 (84.0)	12/25 (48.0)	5/26 (19.2)	5/26 (19.2)
Spine $\geq$ MIC (5)	12/14 (85.7)	8/14 (57.1)	5/15 (33.3)	3/15 (20.0)
Spine $<$ MIC (5)	24/28 (85.7)	14/28 (50.0)	6/28 (21.4)	4/28 (14.3)
Tofacitinib 10 mg BID				
SIJ $\geq$ MIC (2.5)	9/13 (69.2)	8/13 (61.5)	4/13 (30.8)	4/13 (30.8)
SIJ $<$ MIC (2.5)	18/31 (58.1)	12/31 (38.7)	9/31 (29.0)	4/31 (12.9)
Spine $\geq$ MIC (5)	13/18 (72.2)	10/18 (55.6)	7/18 (38.9)	2/18 (11.1)
Spine $<$ MIC (5)	14/26 (53.9)	10/26 (38.5)	6/26 (23.1)	6/26 (23.1)
Pooled tofacitinib 5 and 10 mg BID				
SIJ $\geq$ MIC (2.5)	24/30 (80.0)	18/30 (60.0)	10/30 (33.3)	6/30 (20.0)
SIJ $<$ MIC (2.5)	39/56 (69.6)	24/56 (42.9)	14/57 (24.6)	9/57 (15.8)
Spine $\geq$ MIC (5)	25/32 (78.1)	18/32 (56.3)	12/33 (36.4)	5/33 (15.2)
Spine $<$ MIC (5)	38/54 (70.4)	24/54 (44.4)	12/54 (22.2)	10/54 (18.5)

ASAS, Assessment of SpondyloArthritis International Society; ASDAS, ankylosing spondylitis disease activity score; BID, twice daily; ID, inactive disease; MI, major improvement; MIC, minimally important change; SIJ, sacroiliac joints; Wk, week

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THU0353 CHANGE IN MRI STRUCTURAL LESIONS IN THE SACROILIAC JOINT AFTER TWO YEARS OF ETANERCEPT THERAPY IN COMPARISON TO A CONTEMPORARY CONTROL COHORT IN NON-RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS

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Background: Demonstrating a structural effect of TNF inhibitors in axial SpA (axSpA) is challenging.

Objectives: To compare 2 yrs of structural lesion changes on T1W MRI in the sacroiliac joints (SIJ) of pts receiving etanercept (ETN) in a clinical trial to similar pts not receiving biologics in a cohort study.

Methods: Pts had recent onset non-radiographic (nr)-axSpA fulfilling ASAS criteria. Study group: pts receiving ETN 50 mg once weekly for 2 yrs in EMBARK (NCT01258738). Control group: pts in a longitudinal cohort study not receiving biologics for 2 yrs (DESIR, NCT01648907). Outcome measure: change in structural lesions of erosion, backfill, fat metaplasia, and ankylosis. MRI images were read by 3 experienced readers unaware of image chronology and pt group, using the SpondyloArthritis Research Consortium of Canada SIJ Structural Score (SSS).¹ For each group, differences were calculated between percentages of patients experiencing increases and decreases in structural lesion scores over 2

Figure 1. Cumulative Probability of Change in MRI SIJ Erosion, BL to Week 104.