Results: It was determined that pain VAS at hip movements was decreased (23.1 [12.3; 32.3] mm at month 12 and 19.7 [11.8; 32.9] mm at month 24 vs 73.7 [59.5; 82.6] mm at month 0, $p<0.05$) and maximal distance between ankles was increased (112.5 [94.7; 122.2] mm at month 12 and 116.2 [91.2; 125.0] mm at month 24 vs 78.7 [63.4; 98.5] mm at month 0, $p<0.05$) in observed patients under treatment with ADA. It was also found that ultrasound measured width of hip joint capsule was decreased from 11.8 [10.3; 12.7] mm at month 0 to 8.7 [8.1; 9.4] mm at month 12 ($p<0.05$) and 7.5 [6.6; 8.5] mm at month 24 ($p<0.05$). The ultrasound measured width of hyaline cartilage in observed patients was increased from 0.8 [0.6; 1.1] mm at month 0 to 1.0 [0.8; 1.2] mm at month 12 ($p>0.1$) and 1.2 [1.0; 1.7] mm at month 24 ($p<0.05$) under treatment with ADA. The BASRI-Hips index had not changed in observed patients at the end of 24-months period. The differences in changes of hip cartilage width between patients with joint capsule width at month 24 less than 9 mm and more than 9 mm was determined ($p<0.05$): +0.6 [0.3; 0.8] mm vs +0.1 [-0.1; 0.2] mm.

Conclusion: Treatment with ADA leads to decrease of clinical and sonographic signs of coxitis in patients with AS and improves of hyaline cartilage structure. The increase of width of hip hyaline cartilage was observed in patients with absence of ultrasound signs of hip joints synovial inflammation in patients with AS. MRI-controlled studies are needed to confirm ability of THF α inhibitors to restore cartilage volume in patients with coxitis, associated with AS.

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EARLIER TREATMENT OF NON-RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS WITH CERTOLIZUMAB PEGOL RESULTS IN IMPROVED CLINICAL OUTCOMES

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Background: Patients (pts) with axial spondyloarthritis (axSpA) often experience delayed diagnosis, which leads to treatment delay.¹ Whilst certolizumab pegol (CZP) has been shown to improve the signs and symptoms of non-radiographic (nr)-axSpA,² whether earlier CZP treatment is beneficial in these pts is unclear.

Objectives: To report clinical outcomes in pts with nr-axSpA treated with CZP or placebo (PBO) over 52 weeks (wks) by their symptom duration.

Methods: Post-hoc analyses of disease outcomes in pts stratified by symptom duration (<5 vs $\geq$ 5 yrs at baseline [BL]) from C-axSpA and (NCT02552212) were performed. In this 52-week, phase 3, multicentre, double-blind, PBO-controlled study, pts were randomised 1:1 to PBO or CZP (400mg at Wks 0/2/4, then 200mg every 2 wks), and could adjust non-biologic background medication or switch to open-label biologics at any point.² Outcomes reported: responder rates for Ankylosing Spondylitis Disease Activity Score – major improvement (ASDAS-MI), ASAS 40% improvement (ASAS40) and ASAS partial remission (ASAS-PR); the proportion of pts who reached ASDAS-inactive/low disease (ASDAS-ID/LD) or ASDAS<2.1; and change from BL (CFB) in Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). Missing values or values observed after discontinuing double-blind study treatment were considered to be non-response for categorical measures or, for quantitative measures, imputed by carrying forward the last observation from double-blind treatment.

Table: Clinical outcomes in patients treated with PBO or CZP stratified by symptom duration

	Wk	CZP (n=159)		PBO (n=158)	
		Symptom duration: <5 yrs (n=80)	Symptom duration: $\geq$ 5 yrs (n=79)	Symptom duration: <5 yrs (n=77)	Symptom duration: $\geq$ 5 yrs (n=81)
ASDAS-MI [a]	0	–	–	–	–
% (n)	12	46.3 (37)	24.1 (19)	9.1 (7)	3.7 (3)
	52	55.0 (44)	39.2 (31)	7.8 (6)	6.2 (5)
ASAS40 [a]	0	–	–	–	–
% (n)	12	58.8 (47)	36.7 (29)	11.7 (9)	11.1 (9)
	52	65.0 (52)	48.1 (38)	18.2 (14)	13.6 (11)
ASAS-PR [a]	0	–	–	–	–
% (n)	12	32.5 (26)	12.7 (10)	3.9 (3)	1.2 (1)
	52	43.8 (35)	24.1 (19)	2.6 (2)	6.2 (5)
ASDAS-ID [b]	0	–	–	–	–
% (n/N)	12	20.3 (16/79)	12.8 (10/78)	1.3 (1/77)	1.2 (1/81)
	52	40.5 (32/79)	17.9 (14/78)	2.6 (2/77)	6.2 (5/81)
ASDAS-LD [b]	0	–	–	–	–
% (n/N)	12	39.2 (31/79)	24.4 (19/78)	14.3 (11/77)	9.9 (8/81)
	52	25.3 (20/79)	34.6 (27/78)	16.9 (13/77)	11.1 (9/81)
ASDAS<2.1 [b]	0	–	–	–	–
% (n/N)	12	59.5 (47/79)	37.2 (29/78)	15.6 (12/77)	11.1 (9/81)
	52	65.8 (52/79)	52.6 (41/78)	19.5 (15/77)	17.3 (14/81)
BASDAI [b]	0	6.7 (1.3; 80)	7.0 (1.5; 79)	6.9 (1.3; 77)	6.7 (1.3; 81)
Mean (SD; n)	12	3.4 (2.1; 79)	4.5 (2.2; 78)	5.8 (2.1; 77)	5.6 (2.1; 81)
	52	2.8 (2.3; 79)	3.7 (2.5; 78)	5.5 (2.4; 77)	5.4 (2.2; 81)

[a] Missing values imputed using non-responder imputation; [b] Missing values imputed using double-blind last observation carried forward. ASDAS: Assessment in SpondyloArthritis international Society; ASDAS: Ankylosing Spondylitis Disease Activity Score; ASDAS-ID: ASDAS inactive disease (ASDAS<1.3); ASDAS-LD: ASDAS low disease (ASDAS $\leq$ 1.3, <2.1); ASDAS-MI: ASDAS major improvement (ASDAS reduction of $\geq$ 2.0 or lowest possible score [0.6]); ASAS40: ASAS 40% improvement; ASAS-PR: ASAS partial remission (score $\leq$ 2 in all 4 domains); BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; CZP: certolizumab pegol; PBO: placebo; pt: patient; yrs: years.

Results: Of 317 recruited pts, 159 were randomised to CZP, and 158 to PBO. The mean (standard deviation [SD]) BL symptom duration was 7.8 (7.7) yrs for CZP-treated pts and 8.0 (7.5) yrs for PBO pts. 50.3% (80/159) CZP pts and 48.7% (77/158) PBO pts had a symptom duration <5 yrs. At Wks 12 and 52, ASDAS-MI, ASAS40 and ASAS-PR responder rates, the proportions of pts reaching ASDAS-ID and ASDAS<2.1, and mean CFB in BASDAI, were substantially better among CZP-treated pts with shorter symptom duration (<5 yrs at BL) vs longer symptom duration (Table). Amongst PBO pts, responses were low and there was no consistent trend in outcomes by symptom duration (Table).

Conclusion: In this post-hoc analysis, CZP-treated nr-axSpA pts with shorter symptom duration (<5 vs $\geq$ 5 yrs) showed greater improvements across multiple signs and symptoms of disease. These results indicate that early CZP treatment for nr-axSpA may be beneficial to pts.

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