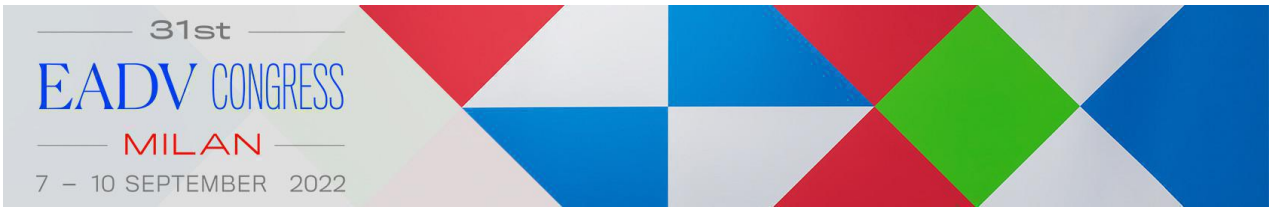

Abstract N°: 3534

Title: A Randomized, Double-Blind, 52-Week, Phase 3 Study to Compare the Efficacy and Safety of Ustekinumab Biosimilar (CT-P43) with Reference Ustekinumab in Patients with Moderate-to-Severe Plaque Psoriasis: 28 Week Results

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Introduction

CT-P43 is a proposed biosimilar to the reference ustekinumab (UST). This trial (NCT04673786) compared the efficacy and safety of CT-P43 with UST in patients with moderate to severe plaque psoriasis up to Week 52.

Materials and methods

Patients with chronic moderate to severe plaque psoriasis who were candidates for phototherapy or systemic therapy were randomly assigned in a 1:1 ratio to receive 45 mg or 90 mg of CT-P43 or UST based on patient's baseline body weight. Prior to dosing at Week 16, patients in UST group were re-randomized in a ratio of 1:1 to either to continue receiving UST or to switch to CT-P43 until end of study. All patients initially randomized to CT-P43 group continued CT-P43. The primary endpoint was the mean percent improvement from baseline in Psoriasis Area Severity Index (PASI) score at Week 12 for the patients who were administered 45 mg of study drug (CT-P43 or UST) with body weight of ≤ 100 kg. Secondary measures of efficacy, quality of life, and safety were also evaluated.

Results

A total of 509 patients were randomized (CT-P43: 256, UST: 253). The baseline characteristics were well balanced. In patients who were administered 45 mg of study drug, the mean percent improvement in PASI score at Week 12 was similar between the groups and the 95% confidence interval (CI) for the estimate of treatment difference was entirely within the predefined equivalence margin of ±15% (95% CI: [-2.29, 4.16] for the Full analysis set and [-

2.32, 4.07] for the Per-protocol set) (Table 1). The mean percent improvement from baseline in PASI score was comparable between the groups prior to dosing at Week 16 (Treatment Period I) and sustained comparable PASI improvement rate was achieved among the groups even after single transition up to Week 28 (Treatment Period II) (Figure 1). In the overall population, a similar reduction in Dermatology Life Quality Index score from baseline was observed and other secondary efficacy endpoints were also similar among the groups at Week 12 and Week 28 (Table 2).

With regards to adverse events of special interest (AESIs), the proportion of patients who experienced at least 1 infection among the groups was similar in Treatment Period I (CT-P43: 34 [13.3%], UST: 32 [12.6%]), and Treatment Period II up to Week 28 (CT-P43 maintenance: 14 [5.5%], UST maintenance: 7 [5.6%], Switched to CT-P43: 7 [5.6%]). There were no notable differences in injection site reactions among the groups, and no hypersensitivity or malignancy were reported up to Week 28., The total number of patients experienced at least 1 treatment-emergent adverse events (TEAEs) and treatment-emergent serious adverse event (TESAEs) were generally similar among the groups throughout the study period (Table 3). In overall period, the most frequently reported common TEAEs was COVID-19 during study period up to Week 28 (CT-P43 maintenance: 11 [4.3%], Stelara Maintenance: 6 [4.8%], Switched to CT-P43: 7 [5.6%]).

Discussion

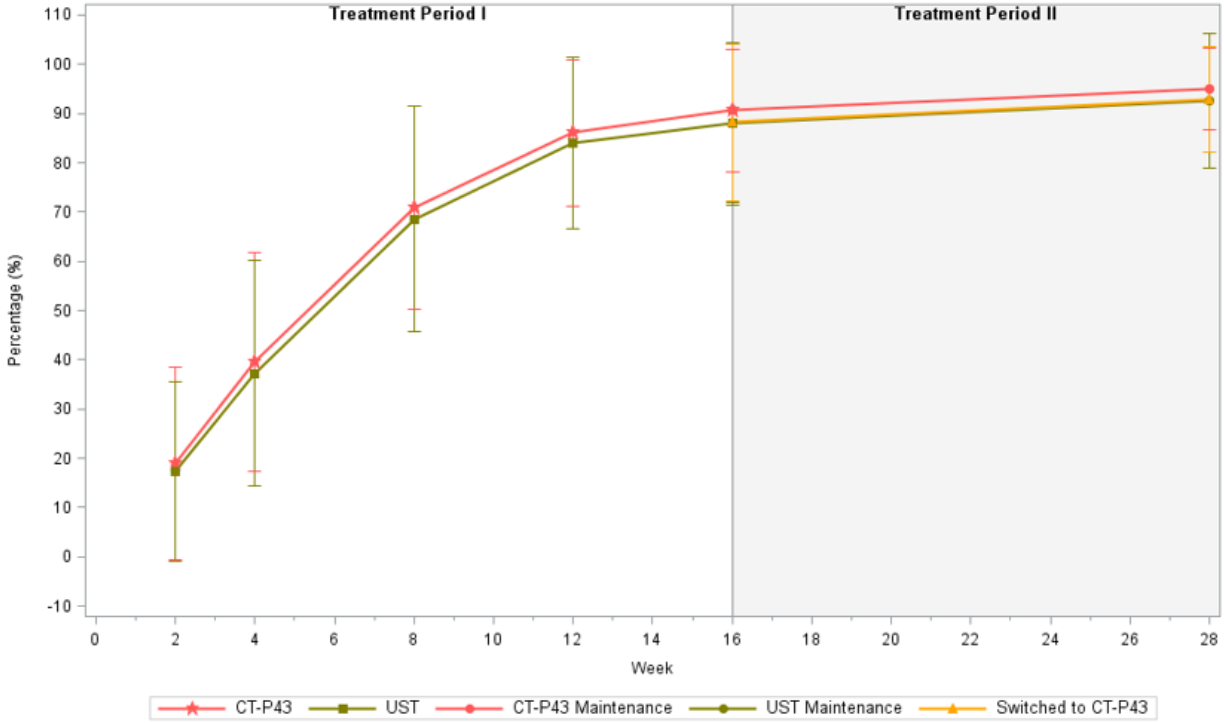
The results demonstrated that CT-P43 was equivalent to UST as measured by the mean percentage improvement in PASI score of Week 12 in patients with moderate to severe plaque psoriasis. Comparable secondary efficacy results and sustained efficacy results up to Week 28 supported the similarity of CT-P43 and UST. CT-P43 was also well tolerated with a safety profile comparable to that of UST, and no notable safety issue was identified following single transition from UST to CT-P43 compared with CT-P43 maintenance and UST maintenance groups up to Week 28.

Table 1. Statistical Analysis of Mean Percent Improvement from Baseline in PASI score at Week 12 (ANCOVA)

Analysis set	Treatment	n	Least Square Mean (Standard Error)	Estimate of Treatment Difference	95% CI of Treatment Difference
Full analysis set	CT-P43	198	78.26 (2.054)	0.94	(-2.29, 4.16)
	UST	194	77.33 (2.049)		
Per-protocol set	CT-P43	195	78.41 (2.038)	0.87	(-2.32, 4.07)
	UST	193	77.54 (2.025)		

Note. 1) An analysis of covariate (ANCOVA) was performed with the treatment as a fixed effect and country, baseline body weight, prior biologic use approved for psoriasis treatment and baseline PASI score as covariates. 2) The patients who fully administered only 45 mg for study drug at Week 0 and 4 and have PASI assessments at baseline and Week 12 was subject to analysis.

Figure 1. Mean (±SD) percentage improvement in PASI score through Week 28 (Full analysis set)



Abbreviations: PASI, Psoriasis Area and Severity Index; SD, standard deviation.

Table 2. Efficacy Results at Week 12 and Week 28 (Full analysis set)

	Week 12		Week 28		
	CT-P43 (N=256)	UST (N=253)	CT-P43 Maintenance (N=253)	UST Maintenance (N=125)	Switched to CT-P43 (N=124)
Improvement in PASI score, n (%)					
PASI 50	247 (96.5)	240 (94.9)	250 (98.8)	121 (96.8)	123 (99.2)
PASI 75	212 (82.8)	187 (73.9)	244 (96.4)	116 (92.8)	116 (93.5)
PASI 90	129 (50.4)	127 (50.2)	205 (81.0)	98 (78.4)	98 (79.0)
PASI 100	47 (18.4)	48 (19.0)	116 (45.8)	46 (36.8)	45 (36.3)
Percentage improvement in PASI score from baseline					
n	256	248	251	124	124
Mean ± SD	86.05 ±14.833	83.99 ± 17.484	95.07 ± 8.303	92.55 ± 13.704	92.86 ± 10.609
Median (Min, Max)	90.21 (5.4, 100)	90.69 (0, 100)	98.77 (27.5, 100)	97.62 (-5.0, 100)	97.20 (42.2, 100)
Proportion of sPGA scores, n (%)					
Clear (0) or Almost clear (1)	219 (85.5)	201 (79.4)	232 (91.7)	111 (88.8)	113 (91.1)
Change in DLQI score from baseline					
n	255	248	250	124	124
Mean ± SD	-9.7 ± 6.74	-8.5 ± 6.67	-10.9 ± 7.20	-8.8 ± 6.95	-9.4 ± 6.66
Median (Min, Max)	-9.0 (-28, 7)	-7.0 (-29, 7)	-10.0 (-27, 14)	-8.0 (-28, 8)	-8.5 (-29, 2)

Abbreviations: DLQI, Dermatology Life Quality Index; Max, maximum; Min, minimum; PASI, Psoriasis Area and Severity Index; SD, standard deviation; sPGA, static Physician's Global Assessment.

Table 3. Overview of TEAEs up to Week 28 (Safety set)

Patients, n (%)	Treatment Period I		Treatment Period II		
	CT-P43 (N=256)	UST (N=253)	CT-P43 Maintenance (N=253)	UST Maintenance (N=125)	Switched to CT-P43 (N=124)
≥1 TEAE	95 (37.1)	75 (29.6)	40 (15.8)	28 (22.4)	26 (21.0)
≥1 TESAE	4 (1.6)	4 (1.6)	0	0	0
≥1 TEAE leading to Study drug discontinuation	0	0	2 (0.8)	1 (0.8)	0
≥1 TEAE classified as Infections	34 (13.3)	32 (12.6)	14 (5.5)	7 (5.6)	7 (5.6)
≥1 TEAE classified as Injection site reactions	3 (1.2)	2 (0.8)	1 (0.4)	0	2 (1.6)
≥1 TEAE classified as Hypersensitivity reactions	0	0	0	0	0
≥1 TEAE classified as Malignancies	0	0	0	0	0

Abbreviations: TEAE, treatment-emergent adverse event; TESAE, treatment-emergent serious adverse event.