Netakimab reduces ankylosing spondylitis activity in patients with or without sacroiliitis on MRI: results of subanalysis of phase 3 ASTERA trial

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Background: The presence of sacroiliacitis in patients (pts) with ankylosing spondylitis (AS) on imaging can be established both by sacroiliac joint (SIJ) X-ray or MRI. Active sacroiliitis on MRI as defined by ASAS is predictor of good treatment response to biological disease modifying anti-rheumatic drugs [1, 2]. Netakimab (NTK) is a humanized anti-interleukin-17A antibody approved for the treatment of AS, psoriatic arthritis, moderate-to-severe plaque psoriasis in Russia and Belarus. The difference in treatment response to NTK in AS pts with and without active sacroiliitis on MRI (MRI+) is unclear.

Objectives: To report the changes in AS activity in pts with and without sacroiliitis on MRI at week 16 of NTK treatment.

Methods: ASTERA (NCT03447704) is an ongoing phase 3 placebo (PBO)-controlled clinical study, aimed at evaluating NTK efficacy in AS. All pts fulfilled modified New York criteria. Evaluation of acute inflammation on SIJ MRI was performed at the baseline but was not an inclusion criterion. This analysis includes pts received subcutaneous NTK 120 mg every 2 wks with available baseline SIJ MRI. The presence of sacroiliacitis on MRI was defined as ASAS≥2. Efficacy endpoints included ASAS20/40, ASAS partial remission (PR), changes from baseline in BASDAI (Bath Ankylosing Spondylitis Disease Activity Index), ASDAS-CRP (Ankylosing Spondylitis Disease Activity Score).

Results: 67 MRI+ and 46 MRI− pts were included into analysis. Baseline characteristics were balanced across both arms. 42.4% of MRI+ pts and 38.3% of MRI− pts achieved ASAS40 at week 16 (p=0.05). ASAS20 was observed in 65.2%/55.3% pts in the same arms respectively (p<0.001). ASAS PR was reported for 15.2% MRI+ and 17.0% MRI− pts (p=0.05). Improvements in BASDAI and ASDAS-CRP were similar across both arms. At wk 16, mean change from baseline in BASDAI was −2.7 vs −3.0 for MRI+ and MRI− pts respectively, mean change in ASDAS-CRP was −1.7 vs −1.4 in the same arms (p=0.05 for all), (figure 1).

Conclusion: NTK leads to decline of disease activity in AS pts irrespectively of sacroiliitis on MRI.

REFERENCES:

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Impact of Adalimumab versus Non-Biological Therapy on Disease Activity and Patient-Reported Outcomes in Ankylosing Spondylitis Over 24 Months – Results of the Complete-AS Canadian Observational Study

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Background: COMPLETE-AS was an observational study among Canadian biologic-naive adults with active ankylosing spondylitis (AS) treated with either adalimumab or subsequent non-biologic disease-modifying anti-rheumatic drugs and/or non-steroidal anti-inflammatory drugs (nbDMARD/NSAID) after having switched from initial treatment with a preceding nbDMARD and/ or NSAID due to lack of response or intolerance, as per treating physician judgement.

Results: 67 MRI+ and 46 MRI− pts were included into analysis. Baseline characteristics were balanced across both arms. 42.4% of MRI+ pts and 38.3% of MRI− pts achieved ASAS40 at week 16 (p=0.05). ASAS20 was observed in 65.2%/55.3% pts in the same arms respectively (p<0.001). ASAS PR was reported for 15.2% MRI+ and 17.0% MRI− pts (p=0.05). Improvements in BASDAI and ASDAS-CRP were similar across both arms. At wk 16, mean change from baseline in BASDAI was −2.7 vs −3.0 for MRI+ and MRI− pts respectively, mean change in ASDAS-CRP was −1.7 vs −1.4 in the same arms (p=0.05 for all), (figure 1).

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Objectives: To assess the impact of adalimumab on disease activity and patient-reported outcomes among adalimumab- vs. nbDMARD/NSAID-treated patients over 24 months.

Methods: Patients were enrolled between July 2011 and December 2017 and followed for up to 24 months. Treatment was per routine care and all analyses were performed using the intent-to-treat (ITT) approach. Between-group differences for change in patient-reported disease activity (BASDAI), morning stiffness (minutes/day), functional limitation (BASI), quality of life (QoL: SF-12), depression (BDI-II), and work productivity (WLOQ) were assessed with repeated measures models for overall treatment effect; baseline-adjusted estimates (least square means [LSM]) for each visit were produced. Achievement of, and time to the following endpoints were assessed: 50% improvement from baseline in BASDAI (BASDAI050); minimum clinically important improvements (MCIs) in BASDAI (Δ≥1); BASFI (Δ≥0.6); SF-12 physical component score (PCS; Δ≥4.4) and mental component score (MCS; Δ≥3.1); and low disease activity for BASDAI (<4) and BASFI (<3.8).

Results: A total of 452 adalimumab-treated patients and 187 nbDMARD/NSAID-treated patients were enrolled in the study and included in the analyses. At baseline, mean (SD) BASDAI [6.4 (1.8)] vs. 5.0 (1.8); p<0.001] and BASFI [5.5 (2.4) vs. 3.7 (2.4)] were however significantly higher in children among adalimumab-treated patients compared to nbDMARD/NSAID-treated patients, respectively. Over 24 months, adalimumab-treated patients had significantly lower overall BASDAI scores compared to nbDMARD/NSAID-treated patients [estimate (95% CI): 0.7 (-0.7, -0.3); p=0.007]. BASFI scores were also significantly lower among adalimumab-treated patients over the course of the study [estimate (95% CI): -0.4 (-0.8, 0.0); p=0.013]. Both groups had statistically comparable outcomes for morning stiffness, BDI-II, WLOQ, and SF-12. Adalimumab-treated patients were also significantly higher odds of achieving therapeutic response thresholds, including BASDAI050 (OR [95% CI]: 1.7 [1.2-2.3]), BASDAI<4 (1.0 [1.0-2.3]), BASFI<3.8 and MCII for BASFI [1.6 (1.1-2.3)]. Time to achievement of each threshold was significantly shorter among adalimumab-treated patients for BASDAI050 (HR [95% CI]: 1.8 [1.1-2.8]), BASDAI<4 [1.7 [1.6-3.6]], and BASFI for BASFI [1.5 [1.0-2.3]]. Time to achievement of MCII for BASFI was not statistically different between groups; for BASFI=3.8 and MCII for both SF-12 PCS and MCS, both odds of, and time to achievement, were also statistically comparable. At month 24, baseline-adjusted BASDAI and BASFI was comparable (p=0.05): LSM (95%CI) 3.5 (3.3, 3.8) vs. 3.6 (3.2-4.0), and 2.9 (2.6-3.1) vs. 3.3 (2.9-3.7), respectively, for adalimumab-treated vs. nbDMARD/NSAID-treated patients.

Conclusion: Among Canad patients with active AS, adalimumab-treated patients reported a greater overall improvement in disease burden than both self-reported disease activity and functional capacity compared to nbDMARD/NSAID-treated patients, along with higher odds and shorter time to achieving therapeutic response thresholds. Despite the overall beneficial effects observed with adalimumab, residual disease burden, however, is observed for Canadian AS patients even after 24 months of treatment.

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Background: Upadacitinib (UPA) was efficacious and well tolerated vs placebo (PBO) during the first 14 weeks (wk) of the phase 2/3 SELECT-AXIS 1 study in patients (pts) with active ankylosing spondylitis (AS) who had an inadequate response to NSAIDS.

Objectives: To report efficacy and safety of UPA through 1 year in the SELECT-AXIS 1 study.

Methods: In SELECT-AXIS 1 (NCT03178487) pts were randomized 1:1 to UPA 15 mg once daily (QD) or PBO; at wk 14, pts continued in the 90-wk open-label extension and received UPA 15 mg QD; reported here are data up to wk 64. The study enrolled pts (≥18 y) with active AS (defined as BASDAI ≥4 and pt assessment of back pain ≥4 [numeric rating scale, 0–10] at screening and baseline [BL]) who had inadequate response to ≥2 NSAIDs or intolerance to or contraindication for NSAIDS and were biologic DMARD naive. Efficacy assessments included percentage of pts with Assessment of SpondyloArthritis international Society (ASAS) 20/40 response, ASAS partial remission, BASDAI50, AS Disease Activity Score (ASDAS) and change from BL in ASDAS and BASFI. Data are reported as observed and by using non-responder imputation (NRI). Treatment-emergent adverse events (TEAEs) were reported as events per 100 patient-years (PY) up to January 31, 2020.

Results: Of 187 pts, 178 pts (each n=89 for UPA and PBO arms) completed wk 14 on study drug and entered the open-label extension; 160 pts completed wk 64. Efficacy was maintained or continued to improve throughout the study in the continuous UPA group: 85% (95% CI, 77%–93%) of pts achieved ASAS40 at wk 64 in the as-observed analysis and 72% (63%–81%) in the NRI analysis (Figure). Pts who switched from PBO to UPA at wk 14 showed similar speed of onset and magnitude of response vs pts

Figure. Efficacy Endpoints Over Time

- Complete upadacitinib 15 mg QD (AO) vs. Placebo upadacitinib 15 mg QD (AO)
- Complete upadacitinib 15 mg QD (IRI/MMRM)
- ASAS54 vs. Placebo upadacitinib 15 mg QD (IRI/MMRM)
- ASAS PR vs. Placebo upadacitinib 15 mg QD (IRI/MMRM)

AO, as observed; ASAS, Assessment of SpondyloArthritis international Society; ASAS54, Asymmetric Spondylitis Activity Score (≥4); ASDAS, Ankylosing Spondylitis Disease Activity Score; SD, standard deviation; TTEAE, treatment-emergent adverse events; PBO, placebo; PI, principal investigator; PR, partial remission; QD, once daily; UPA, upadacitinib.

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References: