

289. ASSESSMENT OF RADIOGRAPHIC PROGRESSION IN PATIENTS WITH SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS TREATED WITH TOCILIZUMAB: 2-YEAR RESULTS FROM THE TENDER TRIAL

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Background: A phase 3 trial (TENDER) demonstrated the efficacy of the IL-6 receptor inhibitor tocilizumab (TCZ) in patients with systemic JIA (sJIA). The purpose of this analysis was to investigate progression of radiographic joint damage in patients with sJIA treated with TCZ for up to 2 years in TENDER.

Methods: 112 patients aged 2–17 years with active, refractory sJIA of ≥ 6 months' duration and an inadequate response to previous non-steroidal anti-inflammatory drugs and oral corticosteroids were enrolled in TENDER. Patients were randomized 2:1 to receive TCZ according to body weight (12 mg/kg < 30 kg or 8 mg/kg ≥ 30 kg) or placebo i.v. every 2 weeks for 12 weeks. Patients then received open-label TCZ in the ongoing long-term extension. Radiographic progression was calculated as change in adapted Sharp/van der Heijde score (aSH) score and/or Poznanski score, assessed on hand and wrist radiographs, from baseline to weeks 52 and 104. Radiographic progression was indicated by a positive aSH score change or negative Poznanski score change. Clinical efficacy endpoints included American College of Rheumatology (ACR) Pediatric (Pedi) 70/90 responses.

Results: Baseline and ≥ 1 post-baseline aSH and Poznanski scores were available for 47 and 33 patients, respectively. Reasons for missing X-rays included early withdrawal, no consent, unreadable X-rays. Baseline characteristics for patients with radiographic data were similar to the whole TCZ population. Patients with assessable aSH/Poznanski scores had 5.2/4.8-year disease duration, 21.3/19.2 active joints, 20.0/18.2 joints with limitation of movement, and ESRs of 53.9/59.2 mm/h. At weeks 52 and 104, there were 20 and 19 patients, respectively, with aSH progression, and 8 and 6 patients, respectively, with Poznanski score progression. Median change in aSH score from baseline to weeks 52 and 104 were 0 and 0.5, respectively (Table 1). Median change in Poznanski score from baseline to weeks 52 and 104 were 0.3 and 0.17, respectively.

Conclusion: Although changes in radiographic scores over time were seen in many patients, on average, patients with sJIA did not

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	Wk 52	Wk 104
aSH score ($n = 47$), median (IQR)	0.00 (−8.70–4.00)	0.50 (−7.50–12.00)
Poznanski score ($n = 33$), median (IQR)	0.30 (−0.02–1.03)	0.17 (0.01–1.04)
ACR Pedi 70 ($n = 112$), n/N (%)	92/106 (86.8)	57/65 (87.7)
ACR Pedi 90 ($n = 112$), n/N (%)	67/106 (63.2)	46/65 (70.8)

IQR: interquartile range.

experience noticeable progression of radiographic damage over 2 years of treatment with TCZ.

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