Background: In patients with RA, prolonged disease duration at treatment initiation has been associated with unfavourable outcomes. The phase 3 MOBILITY study (NCT01061736) examined the investigational drug sarilumab plus MTX vs placebo plus MTX in patients with inadequate response to MTX. This analysis evaluated whether RA duration (≤3 vs >3 years) affected the clinical and radiographic efficacy of sarilumab in patients with RA enrolled in MOBILITY.

Methods: In MOBILITY, adults with moderate to severe, active RA and inadequate response to a stable dose of MTX were randomized 1:1:1 to s.c. sarilumab 150 mg, sarilumab 200 mg or placebo every 2 weeks (q2w) plus MTX for 52 weeks. This prespecified analysis assessed radiographic and clinical efficacy results by RA duration from diagnosis to baseline (≤3 vs >3 years) in the intent-to-treat population.

Results: Differences between both groups in baseline characteristics were observed for age, modified total Sharp score (mTSS) and number of patients previously treated with biologics. The efficacy of sarilumab [a 20% improvement in ACR criteria (ACR20), HAQ Disability Index (HAQ-DI) and mTSS] did not differ between patients with different disease durations (≤3 vs >3 years) based on a treatment-by-subgroup interaction test (P = not significant). Irrespective of RA duration, ACR20, ACR50 and ACR70 responses were higher with both doses of sarilumab vs placebo (Table 1). At week 16, HAQ-DI improvements were greater with both doses of sarilumab than placebo, regardless of disease duration. In both groups, less structural progression (reflected in the change in mTSS from baseline at 52 weeks) was observed with sarilumab vs placebo. Frequencies of treatment-emergent and serious adverse events (AEs) were comparable across patient subsets. The most frequent treatment-emergent AEs were infections, which occurred at a greater incidence in sarilumab-treated groups than in placebo-treated groups. Regardless of RA duration, laboratory abnormalities were more frequent with sarilumab and included decreases in neutrophils and increases in transaminases.

Conclusion: Regardless of RA duration, all subgroups receiving sarilumab had improvements in signs and symptoms of RA and physical function and decreased progression of structural joint damage. With sarilumab 200 mg, a greater magnitude of responses was observed in the group with RA ≤ 3 years. The frequency of AEs did not differ by disease duration.

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