

Efficacy and Safety of Abrocitinib in Patients With Moderate-to-Severe Atopic Dermatitis: Results From the Open-Label Run-In Period of JADE REGIMEN

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Background: Abrocitinib, an oral once-daily Janus kinase 1 selective inhibitor, administered as monotherapy at doses of 200 mg and 100 mg, was well tolerated and more effective than placebo in patients with moderate-to-severe atopic dermatitis (AD) after 12 weeks of treatment in 2 phase 3 (JADE MONO-1 [NCT03349060] and JADE MONO-2 [NCT03575871]) and 1 phase 2b (NCT02780167) clinical trials. The efficacy and safety of abrocitinib in an induction maintenance paradigm has not been investigated.

Objectives: To assess the short-term efficacy and safety of abrocitinib monotherapy in the open-label run-in period of the JADE REGIMEN study (NCT03627767).

Methods: In JADE REGIMEN, patients aged ≥ 12 years with moderate-to-severe AD received abrocitinib monotherapy 200 mg for 12 weeks as part of an open-label run-in period before being randomly assigned

1:1:1 to receive abrocitinib 200 mg, abrocitinib 100 mg, or placebo in a 40-week double-blind maintenance period. The analysis of efficacy in the run-in period was evaluated by measuring the proportion of patients who achieved Investigator's Global Assessment (IGA) response (clear [0] or almost clear [1] with ≥ 2 -grade improvement), $\geq 75\%$ improvement in Eczema Area and Severity Index (EASI-75 response), and Peak Pruritus Numerical Rating Scale (PP-NRS; used with permission of Regeneron Pharmaceuticals, Inc., and Sanofi) response with ≥ 4 -point improvement (PP-NRS4) at week 12. Patients who achieved IGA and EASI-75 responses during the 12-week run-in period (responders) were randomly assigned 1:1:1 to receive abrocitinib 200 mg, abrocitinib 100 mg, or placebo during the 40-week maintenance period of the study; patients who did not reach this response threshold were considered nonresponders and completed the study at week 12. During the maintenance period, randomly assigned patients who experienced flares of AD (loss of $\geq 50\%$ of EASI response achieved at week 12 with an IGA score ≥ 2) entered a 12-week open-label rescue period.

Results: As part of the open-label period, 1233 patients (mean age, 31.6 years, 20.0% [n=246] aged <18 years; male, 55.5%; white, 75.5%; moderate AD per IGA, 59.1%; severe AD per IGA, 40.9%; median EASI score, 27.9; median Dermatology Quality of Life Index [DLQI] score, 16.0; median Children's Dermatology Quality of Life Index (CDLQI) score, 12.0) were treated with abrocitinib 200 mg once daily. A total of 120 patients (9.7%) discontinued before week 12, mostly because of adverse events (49 patients [4.0%]) and patient/parent/guardian withdrawal (42 patients [3.4%]). At week 12, 65.9% (95% CI, 63.3%-68.6%), 75.6% (73.1%-78.0%), and 68.3% (65.3%-71.3%) achieved IGA, EASI-75, and PP-NRS responses, respectively; 65.2% (62.5%-67.9%) achieved both IGA and EASI-75 responses. In adolescents and adults, the week 12 response rates were 59.8% (53.6%-65.9%) and 67.5% (64.6%-70.4%) for IGA, 71.5% (65.9%-77.2%) and 76.6% (73.9%-79.2%) for EASI-75, and 57.5% (50.0%- 65.0%) and 70.6% (67.4%- 73.8%) for PP-NRS4. During the run-in period, 820 patients (66.5%) reported AEs; 20 (1.6%) reported serious AEs, and 38 (3.1%) reported severe AEs. Overall, 798 patients (64.7%) were randomly assigned to the maintenance period at week 12.

Conclusion: Abrocitinib monotherapy 200 mg was effective and well tolerated in adolescents and adults with moderate-to-severe AD during the 12-week, run-in, open-label period of JADE REGIMEN. These results support the efficacy and safety observed in the phase 3 JADE MONO-1 and JADE MONO-2 abrocitinib monotherapy clinical trials.