Predictors of Maintenance of Response in Patients With Moderate-to-Severe Atopic Dermatitis After Oral Janus Kinase 1 Selective Inhibitor Abrocitinib Interruption

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Background: It is unclear whether systemic therapy for patients with moderate-to-severe atopic dermatitis (AD) can be interrupted after they achieve treatment response and whether there are predictors for which patients can maintain response during treatment interruptions. This 12-week, multicenter, double-blind, dose-ranging, placebo-controlled phase 2b study (NCT02780167) was designed to evaluate efficacy and safety of abrocitinib in adults with moderate-to-severe AD.

Objective: To ascertain whether patients with moderate-to-severe AD who achieved response with abrocitinib maintained response after abrocitinib interruption and determine the predictors for maintenance of response.

Methods: Patients who achieved Investigator's Global Assessment (IGA) response (clear [0] or almost clear [1] with ≥2-grade improvement) or Eczema Area and Severity Index (EASI)-50 response (≥50% improvement) at week 12 were analyzed. Baseline characteristics were evaluated as predictors of maintained response at 4 weeks after interruption.

Results: Among 267 randomly assigned and treated patients, IGA responses were achieved by 21 (43.8%), 16 (29.6%), 4 (8.9%), 5 (10.9%), and 3 (5.8%) patients who received abrocitinib 200 mg, 100 mg, 30 mg, 10 mg, or placebo, respectively; EASI-50 responses were achieved by 38 (79.2%), 30 (55.6%), 15 (33.3%), 12 (26.1%), and 14 (26.9%) patients, respectively. Of these, 35.7% maintained IGA response and 65.5% maintained EASI-50 response at 4 weeks after abrocitinib interruption. Patients who maintained response versus those who did not had less severe disease at baseline (IGA response: severe IGA, 13.3% vs 40.7%; median EASI, 15.5 vs 20.0; EASI-50 response: severe IGA, 28.9% vs 50.0%; median EASI, 18.2 vs 27.4).

Conclusion: A considerable proportion of patients maintained response at 4 weeks after abrocitinib interruption. Patients with less severe disease at baseline were more likely to maintain response. An ongoing randomized controlled abrocitinib trial of induction followed by dose lowering or discontinuation will further explore this potential.

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