Interim results from ADmirable, a phase 3b open-label study assessing lebrikizumab in patients with skin of color and moderate-to-severe atopic dermatitis

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Introduction/Background:
Lebrikizumab is a novel, high-affinity monoclonal antibody, selectively targeting IL-13 with a slow dissociation rate. The efficacy and safety of lebrikizumab to treat moderate-to-severe atopic dermatitis (AD) have been established in phase 3 studies, including subset analyses by race and ethnicity.

ADmirable (NCT05372419) is the first phase 3b, open-label, 24-week study to evaluate the efficacy and safety of lebrikizumab in adult and adolescent patients with moderate-to-severe AD and skin of color (SOC).

Objectives:
To present the baseline demographics, clinical characteristics, and 16-week efficacy from an interim analysis of ADmirable.

Methods:
Patients who enrolled by June 29, 2023, and completed 16 weeks of lebrikizumab treatment or discontinued treatment on or prior to Week 16 were included in this analysis. At baseline and Week 2, patients received a 500-mg lebrikizumab loading dose followed by 250 mg every 2 weeks through Week 16. Key eligibility criteria included: ≥12 years of age (≥40 kg for adolescents), self-reported race other than White, Fitzpatrick Phototype IV-VI, chronic AD present for ≥1 year, history of inadequate response
to topical medications, naïve to biologics indicated for AD treatment, baseline Eczema Area and Severity Index (EASI) ≥16, Investigator’s Global Assessment (IGA) ≥3, and ≥10% body surface area (BSA) of AD involvement. Baseline demographics and clinical characteristics were collected during screening. Efficacy endpoints included the proportion of patients achieving ≥75%/≥90% reduction in EASI (EASI 75/90); IGA of 0,1 with ≥2-point improvement from baseline (IGA 0,1) and ≥3-point and ≥4-point Pruritus Numeric Rating Scale (NRS) improvement from baseline; mean percentage change in EASI and Pruritus NRS; and changes in post-inflammatory hyperpigmented (PIH) lesions as measured by PDCA-Derm™, a new scale comparing PIH lesions with unaffected, adjacent normal skin. Serious adverse events (SAEs) were also assessed. Additional innovative objective measures of pigment and erythema were utilized in this trial.

Discrete variables are described using frequencies and percentages, and continuous variables are described with summary statistics. All data are as observed.

**Results:**
The analysis included 50 enrolled patients. Forty patients (80%) were Black/African-American, 7 (14%) were Asian, and 3 (6%) were American Indian/Alaska Native; 11 (22%) were Hispanic/Latino and 39 (78%) were not Hispanic/Latino; 8 (16%) patients were adolescents and 23 (46%) patients were female. The proportions of patients with Fitzpatrick Phototype IV, V, and VI were 42%, 22%, and 36%, respectively. At baseline, mean (SD) age was 42.2 (19.7) years; and disease duration was 19.3 (15.8) years. Mean (SD) baseline BMI was 30.2 (7.7) kg/m². Mean (SD) BSA affected was 41.7% (20.8) and 64% of patients presented with IGA=3. At baseline, mean (SD) EASI and Pruritus NRS were 28.1 (12.4) and 7.2 (2.2), respectively, and 27 patients (54%) had at least one PIH lesion. Clinical characteristics included AD with prurigo nodules (16%), follicular/perifollicular accentuation of AD (14%), allergic shiners (12%), pityriasis alba (10%), and AD with nummular features (10%). 40 patients completed the Week-16 visit. At Week 16, the proportions of patients achieving the following outcomes were: EASI 75: 68%; EASI 90: 46%; IGA 0,1: 39%; ≥3-Point Pruritus NRS improvement: 66%; and ≥4-point Pruritus NRS improvement:
56%. At Week 16, the mean percentage change from baseline (improvement) was -79.1% for EASI and -53.9% for Pruritus NRS. At Week 16, 12 of 21 patients with baseline hyperpigmented lesions had improved PDCA-Derm™ and 6 of the 21 lesions achieved normal skin tone. No SAEs were observed.

Conclusions:
In this interim analysis of the first Phase 3b clinical trial of lebrikizumab for patients with moderate-to-severe AD and SOC, lebrikizumab improved AD signs and symptoms as measured with objective and subjective tools and scales, and no SAEs were observed.

**Proportion of patients achieving EASI 75 or IGA (0,1) with ≥2-Point Improvement From Week 0 to Week 16 (N=50)**

**Keywords:**
atopic dermatitis, disease severity, ethnicity, lebrikizumab, race

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