Dupilumab improves treatment satisfaction and health-related quality of life in adults with atopic dermatitis in clinical practice: Subgroup analysis of Black/African American population from RELIEVE-AD

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INTRODUCTION

- Atopic dermatitis (AD) is a chronic, type 2 inflammatory skin disease, associated with decreased health-related quality of life (HRQoL)[1]
- Dupilumab is a fully human anti-interleukin-4 receptor α monoclonal antibody approved for patients aged ≥6 months with moderate-to-severe AD inadequately controlled by topical therapies[2,3]
- The safety and efficacy of dupilumab have been demonstrated in phase 3 clinical trials[4-12]
- A prospective, real-world, longitudinal patient survey study, RELIEVE-AD, demonstrated that dupilumab treatment improves treatment satisfaction and HRQoL in adults with moderate-to-severe AD[13]
- A subgroup analysis of treatment satisfaction and HRQoL was conducted in Black/African American adults with AD from the RELIEVE-AD study

OBJECTIVE

- **To characterize treatment satisfaction and impact of dupilumab on HRQoL from the perspective of Black/African American patients, a population in which clinical study data are limited**

METHODS

- In the RELIEVE-AD study, adults with moderate-to-severe AD were identified through the US dupilumab patient support program and invited to participate in an online survey before (baseline) and after dupilumab initiation at Months 1, 2, 3, 6, 9, and 12[13]
- Treatment satisfaction was evaluated using a stand-alone question, "How satisfied are you with your current treatment(s) for AD?," with response on a 7-point Likert scale from "extremely satisfied" to "extremely dissatisfied"
- HRQoL over the previous week was evaluated using the Dermatology Life Quality Index (DLQI)
  - The total score of DLQI ranges from 0 to 30, with higher score indicating larger negative effect: 21–30 (extremely large effect), 11–20 (very large effect), 6–10 (moderate effect), 2–5 (small effect), 0–1 (no effect)
  - A change of ≥4 points from baseline in total score of DLQI was considered achieving minimal clinically important difference (MCID)[14]
- A subgroup analysis of self-reported data from the Black/African American population was performed

RESULTS

Patient Characteristics

- Of 64 Black/African American patients completing the baseline survey, 43 provided responses at Month 12, with a survey completion rate of 67.2%
- Among patients who completed the survey at Month 12 (N = 43), mean age at study initiation was 38.8 years and a majority of patients were female (**Table 1**)

Treatment Satisfaction

- Following dupilumab treatment, significantly more patients reported that they were extremely/very/somewhat satisfied with current treatment(s) at Month 1 (84.3%) and Month 12 (83.7%) vs baseline (28.1%, both *P*<0.0001; **Figure 1**)

Impact on HRQoL

- Mean total DLQI score significantly improved from 16.6 at baseline to 6.8 at Month 1, and to 4.6 at Month 12 (both *P*<0.0001; **Figure 2**)

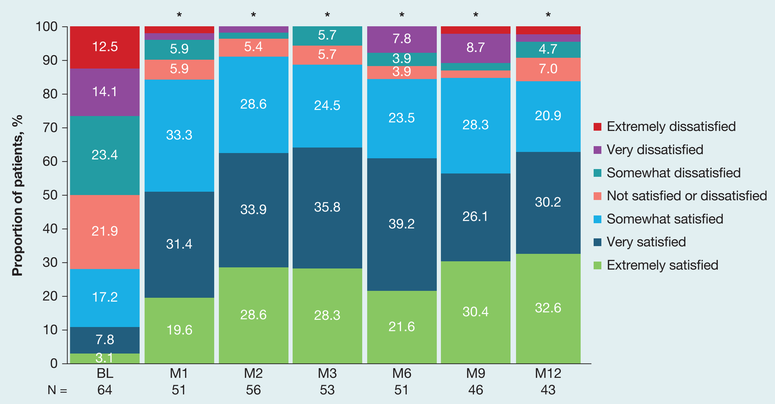
RESULTS (CONT.)

Table 1. Baseline Demographic and Clinical Characteristics of Black/African American Adults with AD

Variable	Baseline (N = 64)	Month 12 (N = 43)
Female, n (%)	55 (85.9)	37 (86.0)
Age, mean (SD)	38.2 (13.8)	38.8 (13.8)
Geographic region, n (%)		
Northeast	10 (15.6)	8 (18.6)
Midwest	7 (10.9)	4 (9.3)
South	40 (62.5)	25 (58.1)
West	7 (10.9)	6 (14.0)
Age at AD diagnosis, n (%)		
≤18 years	37 (57.8)	28 (65.1)
19–34 years	9 (14.1)	6 (14.0)
≥35 years	11 (17.2)	7 (16.3)
Don't remember	7 (10.9)	2 (4.7)
Education, n (%)		
High school diploma or equivalent	12 (18.8)	5 (11.6)
Some college or Associate's degree	30 (46.9)	18 (41.9)
College graduate/Bachelor's degree	14 (21.9)	13 (30.2)
Advanced degree (such as Master's degree, professional degree beyond undergraduate, or Doctorate degree)	8 (12.5)	7 (16.3)
Comorbidities,* n (%)		
Type 2 comorbid diseases (asthma or non-seasonal allergies)	39 (60.9)	27 (62.8)
Seasonal allergies	36 (56.3)	25 (58.1)
Non-seasonal allergies†	26 (40.6)	19 (44.2)
Asthma	24 (37.5)	15 (34.9)
Hypertension (high blood pressure)	16 (25.0)	13 (30.2)
Anxiety	15 (23.4)	8 (18.6)
Depression	11 (17.2)	7 (16.3)
Obesity	17 (26.6)	12 (27.9)
Sleep disorders	6 (9.4)	6 (14.0)
Anemia	18 (28.1)	12 (27.9)
Diabetes mellitus (type 1 or 2)	7 (10.9)	6 (14.0)

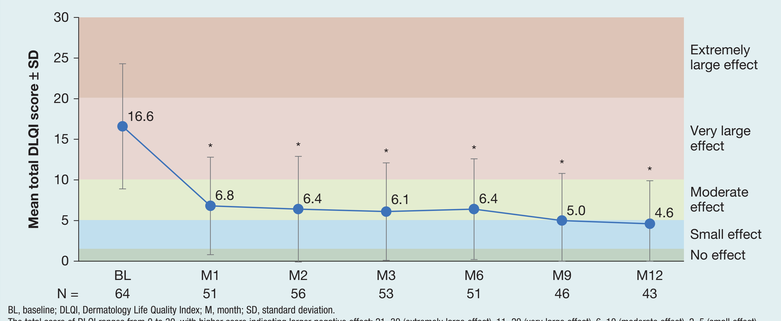
AD, atopic dermatitis; SD, standard deviation.
*Defined as ≥10% among all patients. Responses were not mutually exclusive.
†Allergic rhinitis, allergic conjunctivitis, food allergies, allergic urticaria or hives, and others.

Figure 1. Overall Patient Satisfaction With Current AD Treatment(s)



AD, atopic dermatitis; BL, baseline; M, month.
Treatment satisfaction was evaluated using a 7-point Likert scale from "extremely satisfied" to "extremely dissatisfied."
P<0.0001 vs BL.

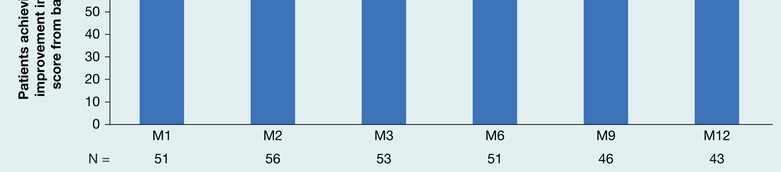
Figure 2. Mean Total DLQI Score



BL, baseline; DLQI, Dermatology Life Quality Index; M, month; SD, standard deviation.
The total score of DLQI ranges from 0 to 30, with higher score indicating larger negative effect: 21–30 (extremely large effect), 11–20 (very large effect), 6–10 (moderate effect), 2–5 (small effect), 0–1 (no effect).
*P<0.0001 vs BL.

- A majority of patients achieved MCID in DLQI scores by Month 1 (84.3%), and the proportions of patients increased through Month 12 (88.4%) (**Figure 3**)

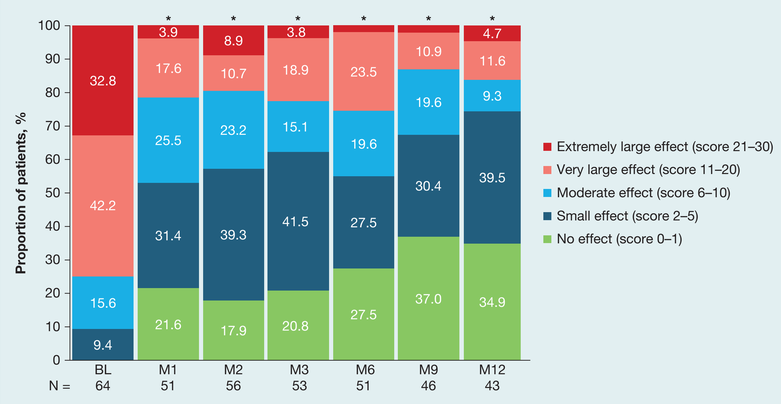
Figure 3. Clinically Meaningful Improvement in HRQoL



BL, baseline; DLQI, Dermatology Life Quality Index; HRQoL, health-related quality of life; M, month; MCID, minimal clinically important difference.
*MCID was considered to be a difference of ≥4 points in the total DLQI score from baseline.[14]

- At Month 12, 34.9% of patients reported that AD had no effect (DLQI=0/1) on their lives (vs 0% at baseline, *P*<0.0001; **Figure 4**)

Figure 4. Effect of AD on Patients' Lives Based on DLQI



AD, atopic dermatitis; BL, baseline; DLQI, Dermatology Life Quality Index; M, month.
*P<0.0001 vs BL.

CONCLUSIONS

- **In Black/African American adults with moderate-to-severe AD treated with dupilumab, rapid and sustained patient satisfaction was observed**
- **Similarly, significant improvement in HRQoL was reported after dupilumab treatment, with clinically meaningful improvement in HRQoL during the study period**
- **Interpretation of the results of this subgroup analysis should account for the small sample size and attrition over the study period**

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