Once-Daily Roflumilast Cream 0.15% for the Treatment of Atopic Dermatitis in Patients With Diverse Skin Types: Pooled Subgroup Analysis From the Phase 3 INTEGUMENT-1 and -2 Trials

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INTRODUCTION

- The epidemiology and clinical presentation of atopic dermatitis (AD) may differ based on race, ethnicity, and Fitzpatrick skin type[1-3]
- In the INTEGUMENT-1 (NCT04773587) and INTEGUMENT-2 (NCT04773600) Phase 3 trials, roflumilast cream 0.15% was well tolerated and demonstrated efficacy in patients aged ≥6 years with mild-to-moderate AD[4,5]

METHODS

- INTEGUMENT-1 and INTEGUMENT-2 were identically designed, randomized, parallel-group, double-blind, vehicle-controlled, multicenter trials enrolling patients aged ≥6 years with mild-to-moderate AD
- The primary endpoint was Validated Investigator Global Assessment for Atopic Dermatitis (vIGA-AD) Success (0 [clear] or 1 [almost clear] plus ≥2-grade improvement) at Week 4
  - vIGA-AD: 5-point scale ranging from clear (0) to severe (4) that assesses inflammatory signs of AD
- Secondary endpoints included vIGA-AD Success at Weeks 1 and 2; vIGA-AD 0/1 at Weeks 1, 2, and 4; Worst Itch-Numeric Rating Scale (WI-NRS) Success (≥4-point improvement in patients aged ≥12 years with baseline score ≥4) at Weeks 1, 2, and 4; and ≥75% reduction from baseline in Eczema Area and Severity Index (EASI-75) at Week 4
  - WI-NRS: 11-point scale ranging from 0 (no itch) to 10 (worst itch imaginable)
- Safety and tolerability were also assessed

OBJECTIVE

- Assess the efficacy of roflumilast cream 0.15% in patients with AD based on race (White, Black or African American, Asian, or other race), ethnicity (Hispanic or Latino, or Not Hispanic or Latino), and Fitzpatrick skin type (I–III or IV–VI) using pooled data from Phase 3 randomized controlled trials

Study Design

Eligibility
- Diagnosis of mild or moderate AD (vIGA-AD = 2 or 3)
- Aged ≥6 years
- BSA ≥3%
- EASI ≥5

Randomize 2:1

- Roflumilast Cream 0.15% QD
- Vehicle Cream QD

4 weeks[a]

[a]Nonmedicated emollients or moisturizers could be applied QD, but only to untreated areas of the patient's skin.
BSA: body surface area; EASI: Eczema Area and Severity Index; QD: once daily.

RESULTS

- Baseline weekly average WI-NRS and EASI did not differ by race
- Roflumilast cream 0.15% provided consistent and meaningful improvements in signs and symptoms of AD in patients across race, ethnicity, and Fitzpatrick skin types

Patient Demographics

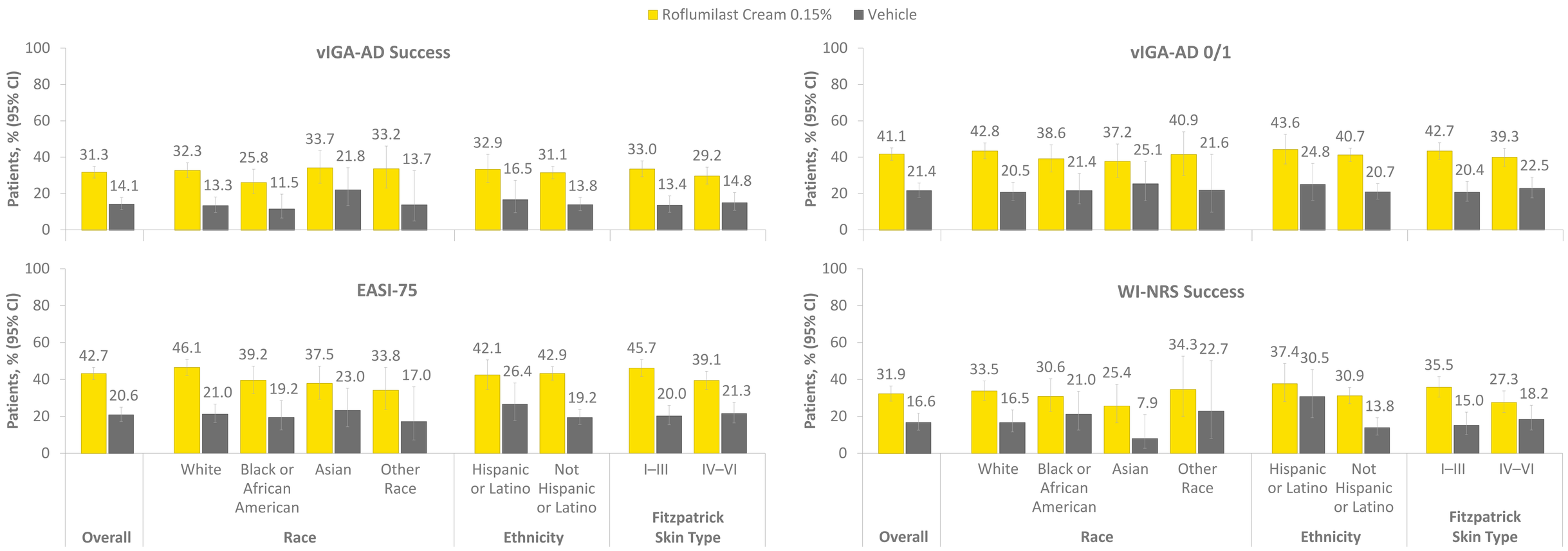
		Roflumilast Cream 0.15% (n=884)	Vehicle Cream (n=453)
Age, years, mean (SD) [range]		27.9 (19.4) [6–91]	27.3 (19.0) [6–84]
Female at birth, n (%)		489 (55.3)	272 (60.0)
Ethnicity, n (%)	Hispanic or Latino	150 (17.0)	72 (15.9)
	Not Hispanic or Latino	730 (82.6)	377 (83.2)
	Not reported[a]	4 (0.5)	4 (0.9)
Race, n (%)	White	529 (59.8)	267 (58.9)
	Black or African American	176 (19.9)	96 (21.2)
	Asian	114 (12.9)	62 (13.7)
	Other race[b]	65 (7.4)	28 (6.2)
Fitzpatrick skin type, n (%)	I–III	481 (54.4)	238 (52.5)
	IV–VI	403 (45.6)	215 (47.5)

[a]Patients not reporting ethnicity were not included in subgroup analyses based on ethnicity; [b]Other race category includes patients reporting races as American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, multiple races, and those patients who chose to describe their race rather than select 1 of the provided options, as well as patients who did not report their race.

Baseline Disease Characteristics

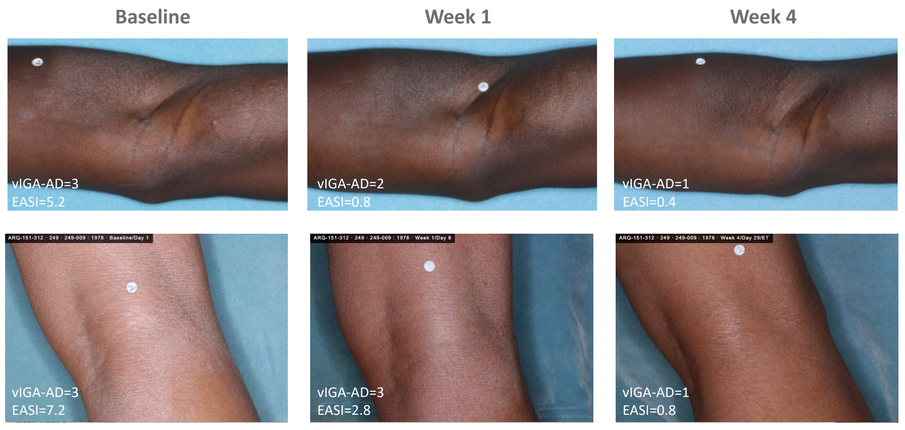
		Roflumilast Cream 0.15% (n=884)	Vehicle Cream (n=453)
Overall	vIGA-AD 2 (Mild) / 3 (Moderate), n (%)	211 (23.9) / 673 (76.1)	112 (24.7) / 341 (75.3)
	EASI, mean (SD)	10.1 (5.7)	10.0 (5.2)
	Weekly WI-NRS, mean (SD)	6.1 (2.2)	5.9 (2.2)
White	vIGA-AD 2 (Mild) / 3 (Moderate), n (%)	134 (25.3) / 395 (74.7)	70 (26.2) / 197 (73.8)
	EASI, mean (SD)	9.7 (5.1)	10.0 (5.1)
	Weekly WI-NRS, mean (SD)	6.0 (2.1)	5.8 (2.2)
Black or African American	vIGA-AD 2 (Mild) / 3 (Moderate), n (%)	45 (25.6) / 131 (74.4)	28 (29.2) / 68 (70.8)
	EASI, mean (SD)	9.5 (4.6)	9.4 (5.3)
	Weekly WI-NRS, mean (SD)	6.0 (2.3)	6.0 (2.4)
Asian	vIGA-AD 2 (Mild) / 3 (Moderate), n (%)	18 (15.8) / 96 (84.2)	8 (12.9) / 54 (87.1)
	EASI, mean (SD)	11.6 (7.7)	10.6 (5.5)
	Weekly WI-NRS, mean (SD)	6.1 (2.1)	5.8 (2.3)
Other race	vIGA-AD 2 (Mild) / 3 (Moderate), n (%)	14 (21.5) / 51 (78.5)	6 (21.4) / 22 (78.6)
	EASI, mean (SD)	12.4 (8.3)	10.6 (5.0)
	Weekly WI-NRS, mean (SD)	6.1 (2.3)	6.0 (2.4)

Proportion of Patients Achieving vIGA-AD Success, vIGA-AD 0/1, EASI-75, and WI-NRS Success at Week 4



CI: confidence interval.

Improvement in Patients With AD Treated With Roflumilast Cream 0.15%



vIGA-AD and EASI are global measures.

Safety

- Safety findings were generally consistent across subgroups
- Overall, the most frequently reported (≤2.9%) treatment-emergent adverse events across subgroups included headache, nausea, application site pain, diarrhea, and vomiting
- Investigator-rated and patient-reported tolerability by race were consistent with the overall population

CONCLUSIONS

- Once-daily nonsteroidal roflumilast cream 0.15% provided meaningful improvements in signs and symptoms of AD
  - Improvements in outcomes were generally consistent across race, ethnicity, and Fitzpatrick skin type subgroups of patients and with the overall trial results
- Safety and local tolerability were generally consistent across race, ethnicity, and Fitzpatrick skin type subgroups and similar between both roflumilast and vehicle treatment groups

ABBREVIATIONS

AD: atopic dermatitis; BSA: body surface area; CI: confidence interval; EASI: Eczema Area and Severity Index; QD: once daily; vIGA-AD: Validated Investigator Global Assessment for Atopic Dermatitis; WI-NRS: Worst Itch-Numeric Rating Scale.

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DISCLOSURES

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