Roflumilast Cream Significantly Improves Chronic Plaque Psoriasis in Patients With Steroid-Sensitive Area Involvement

Zoe D. Draelos[1], Mark G. Lebwohl[2], Charles W. Lynde[3], Walter K. Nahm[4], Kim A. Papp[5], David M. Pariser[6], Linda Stein Gold[7], Daniel Stewart[8], Robert C. Higham[9], Lynn Navale[9], David R. Berk[9]

[1]Dermatology Consulting Services, High Point, NC, USA; [2]Icahn School of Medicine at Mount Sinai, New York, NY, USA; [3]University of Toronto, Toronto, Lynde Centre for Dermatology, Markham, and Probity Medical Research, Markham, ON, Canada; [4]University of California, San Diego, School of Medicine, San Diego, CA, USA; [5]Probity Medical Research and K Papp Clinical Research, Waterloo, ON, Canada; [6]Eastern Virginia Medical School and Virginia Clinical Research, Inc., Norfolk, VA, USA; [7]Henry Ford Medical Center, Detroit, MI, USA; [8]Michigan Center for Skin Care Research, Clinton Township, MI, USA; [9]Arcutis, Inc., Westlake Village, CA, USA

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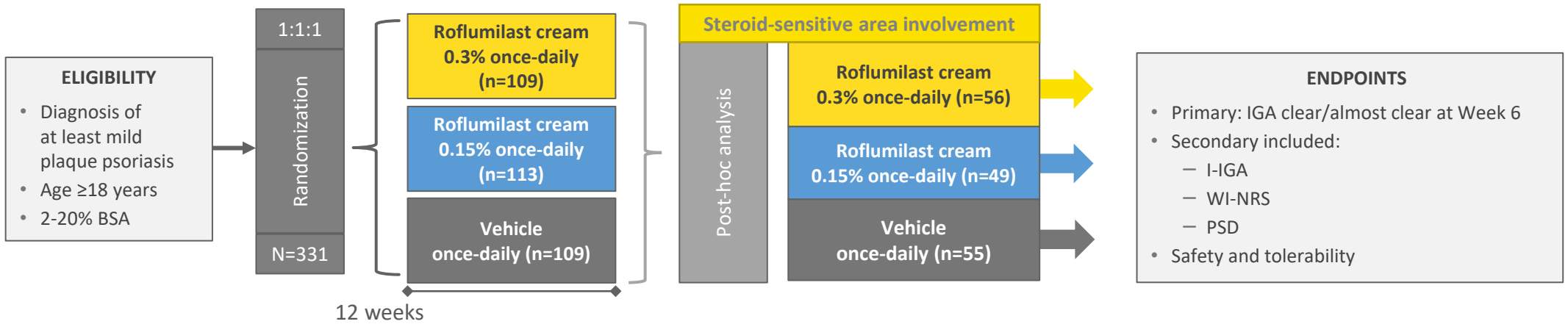
Introduction and Study Design

INTRODUCTION

- Many patients with psoriasis have plaques on difficult to treat areas such as the face or intertriginous regions.[1]
  - Topical corticosteroids and vitamin D derivatives must be used with caution in these areas because they can cause side effects especially with long-term use.[1-4]
- Roflumilast cream is a potent, nonsteroidal, phosphodiesterase-4 inhibitor being investigated for once-daily treatment of psoriasis.[5,6]
- In a randomized, double-blind, phase 2b trial of 331 adults with chronic plaque psoriasis (NCT03638258), once-daily roflumilast cream provided superior efficacy to that of vehicle cream.[6]
- The primary endpoint of achievement of clear or almost-clear skin based on IGA at Week 6 was met by significantly more roflumilast-treated patients: [6]
  - Roflumilast 0.3%: 28.0% (P<0.001 vs vehicle); Roflumilast 0.15%: 22.8% (P=0.004 vs vehicle); Vehicle: 8.3%.
- A low rate of treatment-related adverse events, including application site pain (at 1-3%), occurred and the frequency was similar for each cohort group.[6]
- A post-hoc analysis was performed to assess efficacy and safety of roflumilast in patients with steroid-sensitive area involvement (plaques on the face, neck, or intertriginous areas).

METHODS

- Randomized, double-blind, vehicle-controlled multicenter study.[6]
- Patients with sensitive skin were defined as those with non-zero score for I-IGA severity or PASI area for the head/neck at baseline.
- I-IGA used the same descriptors as the IGA, but evaluated intertriginous areas only.
- PASI assessed severity of psoriasis, WI-NRS assessed the patient-reported worst itch[7], and PSD assessed patient-reported burden and severity of psoriasis signs and symptoms.[8,9]



BSA: body surface area; IGA: Investigator Global Assessment; I-IGA: intertriginous area lesion IGA; PASI: Psoriasis Area and Severity Index; PSD: Psoriasis Symptom Diary; WI-NRS: Worst Itch Numeric Rating Scale

1. Dopytalska K et al. Reumatologia 2018;56:392-8; 2. Elmets CA et al. J Am Acad Dermatol 2021;84:432-70; 3. Khosravi H et al. J Drugs Dermatol 2017;16:760-6; 4. Uva L et al. Int J Endocrinol 2012;2012:561018; 5. Papp KA et al. J Drugs Dermatol. 2020;19:734-40; 6. Lebwohl MG et al. NEJM 2020;383:229-39; 7. Naegeli AN et al. Int J Dermatol. 2015;54:715-22; 8. Lebwohl M et al. Int J Dermatol 2014;53:714-22; 9. Strober BE et al. Value Health 2013;16:1014-22.

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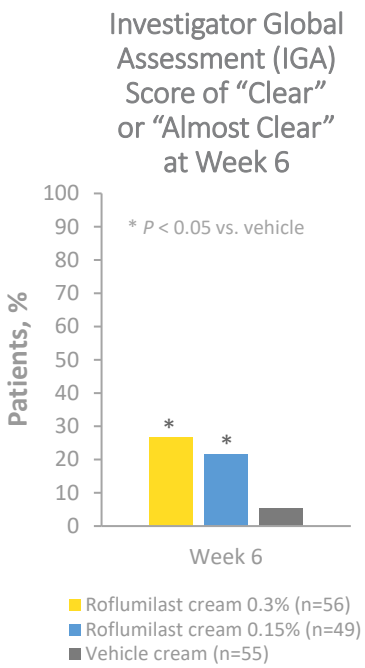
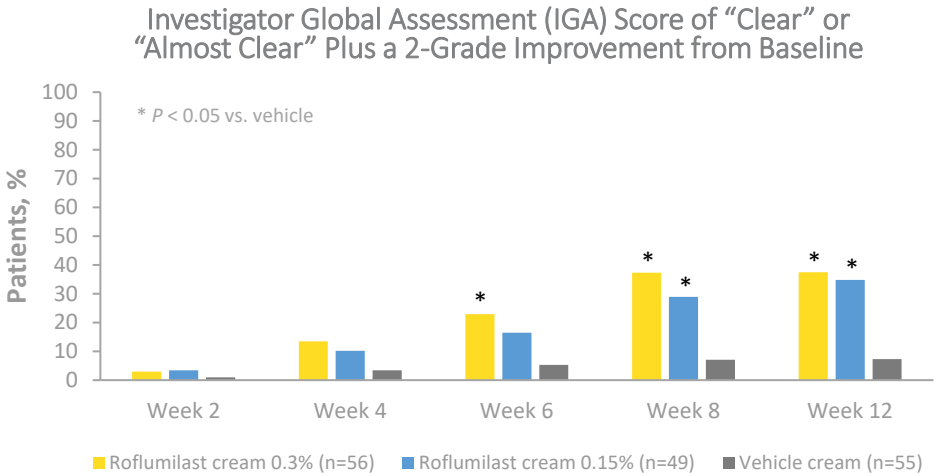
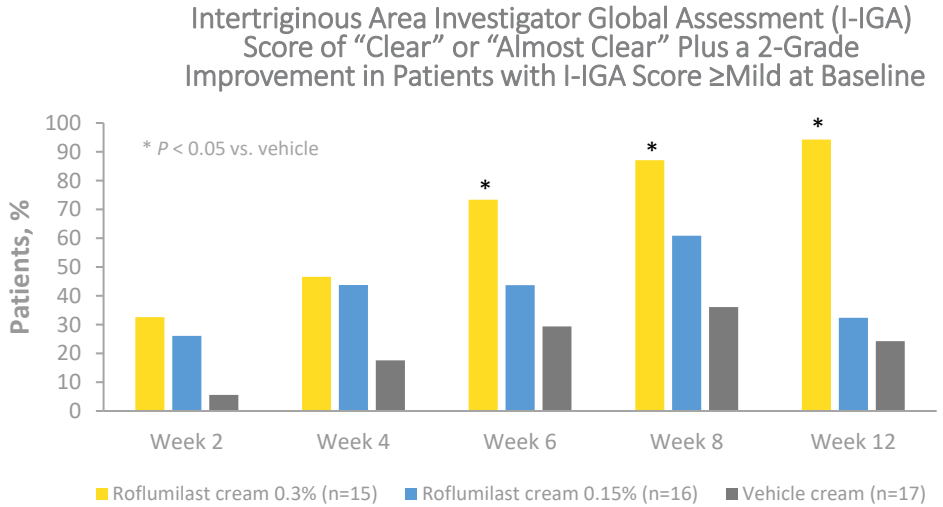
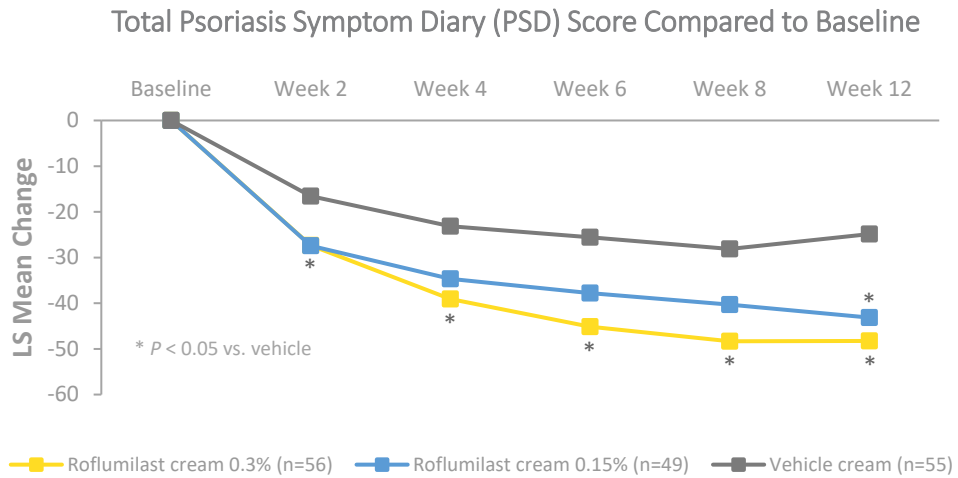
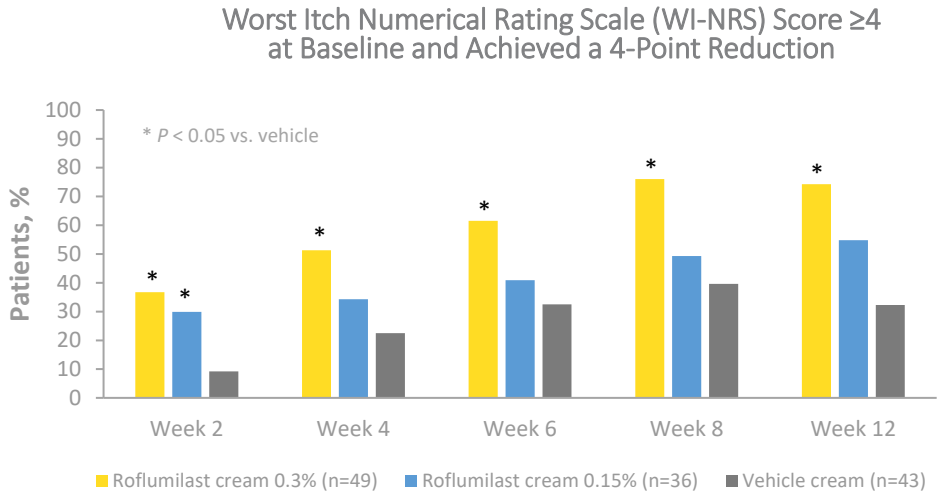
In Patients with Psoriasis in Steroid-Sensitive Areas, Roflumilast Demonstrated Significant Efficacy, Reduced Symptom Burden, and Reduced Itch











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Roflumilast Safety and Tolerability Was Similar to Vehicle in Patients with Psoriasis in Steroid-Sensitive Areas

- Rates of AEs were low.
- Few treatment-related AEs were reported.
  - Most treatment-emergent AEs were mild to moderate in severity.
- Among patients with sensitive skin involvement, 100% of roflumilast- and ≥98% of vehicle-treated patients had no evidence of irritation on post-baseline investigator-rating of local tolerability.
- Mean patient-rated overall local tolerability scores were favorable, and similar between roflumilast and vehicle, and patients with or without involvement of sensitive skin areas.
- Application site pain was rare.
  - Rates were similar in roflumilast-treated patients and those receiving vehicle (roflumilast cream 0.3%: 1.8%; roflumilast cream 0.15%:2.1%: vehicle cream: 3.6%).

Most common TEAE (≥2 patients in any group)	Roflumilast cream 0.3% (n=56)	Roflumilast cream 0.15% (n=47)	Vehicle cream (n=55)
Upper respiratory tract infection	4 (7.1)	5 (10.6)	0
Nasopharyngitis	3 (5.4)	1 (2.1)	2 (3.6)
Viral upper respiratory tract infection	1 (1.8)	1 (2.1)	3 (5.5)
Application site pain	1 (1.8)	1 (2.1)	2 (3.6)
Hypertension	1 (1.8)	2 (4.3)	0
Urinary tract infection	0	3 (6.4)	0
Abdominal pain upper	0	0	2 (3.6)
Abscess limb	2 (3.6)	0	0
Cough	2 (3.6)	0	0
Sinusitis	2 (3.6)	0	0
Weight increased	2 (3.6)	0	0

Data are presented for safety population. AE: adverse event; TEAE: treatment-emergent adverse event.

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Summary and Conclusions

- In this Phase 2b study, roflumilast cream demonstrated significantly greater IGA success, greater improvements on the Psoriasis Symptom Diary (PSD) score, and a larger percentage of patients with an improvement on the Worst-Itch Numeric Rating Scale (WI-NRS).
- Rates of treatment-related adverse events, discontinuations due to adverse events, and application-site pain were low among roflumilast-treated patients and comparable to those vehicle-treated patients.
- Once-daily roflumilast cream was well-tolerated and provided significant improvements in investigator and patient-assessed outcomes in patients with steroid-sensitive area involvement in a post-hoc analysis of the face, neck, or intertriginous areas.

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