

# Roflumilast Cream 0.3% for the Treatment of Recalcitrant Lichen Nitidus

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## INTRODUCTION

- Lichen nitidus is a rare chronic inflammatory condition that presents as shiny, flat-topped papules<sup>1</sup>
- The etiology of lichen nitidus is unknown; however, it is speculated that it can be a genetic disease as case reports in literature have been familial<sup>1</sup>
- Lesions can occur in the neck, trunk, limbs, abdomen, and the penile shaft<sup>1</sup>
- The pathophysiology of lichen nitidus is believed to stem from an underlying immune mechanism<sup>1,2</sup>
  - It is suspected that an allergen may cause antigen-presenting cells to activate a cell-mediated response that ultimately creates the distinct inflammatory papules<sup>1</sup>
- Lichen nitidus can be difficult to treat and can lead to hypopigmentation in African American patients after long-term topical steroid use
- Roflumilast cream 0.3% is a potent topical phosphodiesterase 4 (PDE4) inhibitor approved in 2022 by the FDA for the treatment of psoriasis, including intertriginous disease
  - Roflumilast is more potent than apremilast and crisaborole, with roflumilast more closely mimicking the three key binding sites of cAMP<sup>3,4</sup>
- Here we report a case of lichen nitidus treated with roflumilast cream 0.3% once daily (QD) for 4 weeks

## CASE PRESENTATION

- A 51-year-old African American man presented to clinic with a history of hard, pruritic, white-colored papules on both hands.
- Disease was refractory and uncontrolled for 2 years despite being treated with emollients, triamcinolone cream 0.1%, and clobetasol ointment 0.05%.
- A biopsy showed lymphocytic infiltrate in the upper dermis and the classic "claw and ball" consistent with lichen nitidus.
- Due to persisting pruritus and an inadequate response to topical corticosteroids and emollients, the patient was started on roflumilast cream 0.3% QD
- After 4 weeks of treatment, the patient reported resolution of pruritus and resolution of lesions

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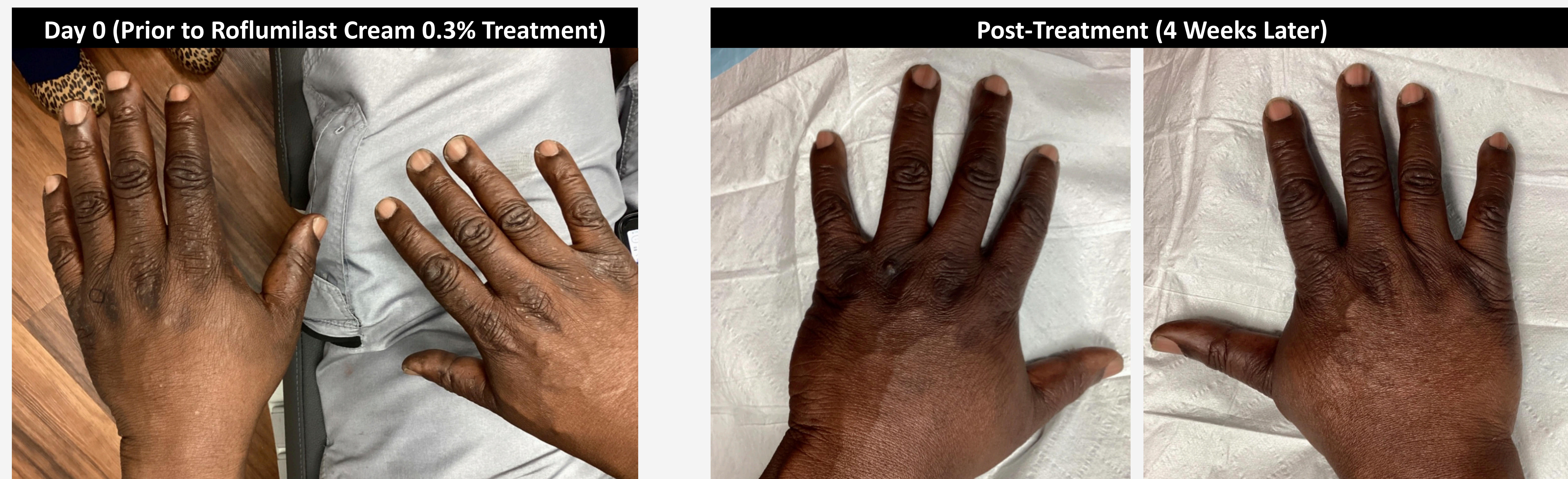


Figure 1. Lichen Nitidus Before and After Treatment With Roflumilast Cream 0.3% QD

## CASE HIGHLIGHTS

- A 51-year-old African American had a 2-year history of pruritic papules consistent with lichen nitidus
- The disease was treated unsuccessfully for 2 years with emollients and topical corticosteroids
- Long-term corticosteroid use is associated with hypopigmentation and other negative side effects
- The patient was successfully treated after 4 weeks of topical roflumilast 0.3% QD treatment and no longer reported pruritus

## CONCLUSIONS

- We report the case of a 51-year-old patient with lichen nitidus that was successfully treated with roflumilast cream 0.3% QD monotherapy after prior treatment failure
- This report suggests reduction of inflammation with a potent topical PDE4 inhibitor roflumilast cream 0.3% is a potential treatment option
- Further clinical evaluation is suggested to evaluate roflumilast cream as a potential treatment option for lichen nitidus

## DISCLOSURES

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