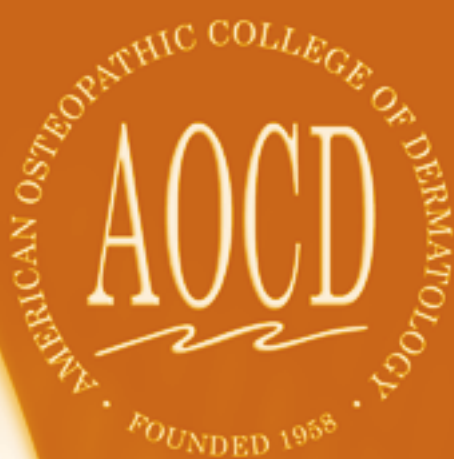


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CASE SERIES: N-PALMITOYLETHANOLAMIDE CREAM (PEA OR MIMYX®) USED AS AN ADJUNCT TO PREVENT INVERSE PSORIASIS FLARE FREQUENCY

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ABSTRACT

Inverse psoriasis is a chronic subset of psoriasis that poses a difficult treatment regimen. Typical treatment modalities have hindered the ability of physicians to safely manage this condition in the past. Newer formulations and compounds that have recently been introduced, have allowed us to approach our understanding of treating this condition in a safe and effective manner.

Introduction

Psoriasis vulgaris is a T cell-mediated inflammatory skin disease affecting an estimated 2.1% of the US population.¹ A subset of psoriasis patients exhibit inverse psoriasis, or flexural psoriasis, which classically occurs in the axillary vaults, groin, under the breasts, and in other skin folds around the genitals and buttocks.² Topical corticosteroids remain the treatment of choice for the many variants of psoriasis. It is commonly known that the local adverse events associated with topical corticosteroid use; including cutaneous atrophy, telangiectasia, and striae formation, are more pronounced when intertriginous areas are treated because these areas are more sensitive to corticosteroid penetration.⁵ Thus, the location of psoriasis in intertriginous areas, poses a unique challenge for treatment.^{3,4}

Psoriasis is a disorder of epidermal hyperproliferation, decreased epidermal turnover and associated impaired barrier function of the epidermis.⁶ The pathophysiological findings of psoriasis guide our ability to treat this disease with safe and efficacious modalities known as the non-steroidal topical barrier repair creams.

N-palmitoylethanolamide Cream (PEA or Mimyx®) is a member of a novel class of topical therapy for acute and chronic dermatitis. PEA is a steroid-free, topical calcineurin inhibitor-free topical therapy with proven efficacy and safety in patients of all ages. PEA cream restores the disrupted skin barrier and reduces exposure to environmental triggers. In addition, it replenishes deficient lipids including PEA, which modulate skin immune response, and relieves symptoms of eczema.^{7,8} PEA has demonstrated anti-inflammatory properties providing skin-soothing effects.⁹⁻¹¹ The ability to restore the skin barrier is essential in controlling psoriatic eruptions. PEA allows for control by replenishing the skin with natural lipids such

as hydrogenated lecithin, olea europaea, palm glycerides, and squalene. PEA also preserves the ability to mimic the lamellar structure of the skin barrier, and maintains a moist wound and skin environment to promote healing.¹²⁻¹³ Transepidermal water loss (TEWL) is another key component to impaired barrier function. PEA is shown to decrease TEWL which is critical for skin barrier repair.¹⁴⁻¹⁵ In one study, PEA significantly reduced TEWL in damaged skin compared to the natural healing process.¹

Case Studies

Three separate patients presented to the Department of Dermatology as new patients complaining of an itchy rash in their underarms, groin, and in between their buttocks. All three patients had denied ever being evaluated by another physician for this rash, and deny any topical treatments since the onset of the rash. Shave biopsies were performed on the affected intertriginous areas, and results did confirm the clinical suspicion of inverse psoriasis. The same treatment was initiated in all three patients, which included twice daily application of Desonide topical cream 0.05% to the involved areas for two weeks. In addition, all patients applied Mimyx® cream to these areas twice daily. Patients were given strict instructions how to use medications and educated to continue Mimyx® cream twice daily after discontinuing the Desonide topical cream.

Conclusion

The goal of our treatment regimen is to suppress inverse psoriasis flares while preventing subsequent psoriatic flares after acute control is achieved. Our study assesses the ability of Mimyx® cream to be safe and effective in accomplishing this objective. The study to date has shown all three patients with a complete resolution of their inverse psoriasis with the aforementioned treatment regimen. The patients



Figure 1. Inguinal Fold



Figure 2. Intergluteal Fold



Figure 3. Axillary Vault

continue to apply Mimyx® cream twice daily. This application cycle has allowed our patients to be flare-free without further topical corticosteroids therapy other than the initial treatment. Flare was defined as the reappearance of pruritus and/or visible psoriasis areas as initially evaluated.

Patients had minimal complaints related to the Mimyx® applications. No serious adverse events were recorded, other than mild transient stinging was reported by one patient at the onset of treatment. Mimyx® Cream is contraindicated in patients with known hypersensitivity to any of the components of the formulation. Mimyx® Cream does not contain a sunscreen and should not be used prior to extended exposure to the sun if being utilized for non-intertriginous psoriasis.¹⁶ Mimyx® purports to be a very safe alternative to topical corticosteroids due to the fact that it has no age or duration restrictions. Medical practitioners need to have the ability to utilize medications for psoriasis in intertriginous areas that are safe and effective as well as provide an improvement in the quality of life. As discovered in our small case series, the key goal of providing an adjunctive therapeutic modality in the prevention of inverse psoriasis flare frequency was achieved. Randomized, blinded studies with a larger sample size are needed to further corroborate our data.

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