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The Efficacy of Topical Hydrolyzed Psoralea corylifolia Extract in Treating Postinflammatory Hyperpigmentation

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Disclosures

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- ABL is an Investigator for Unigen, Bayer, Pfizer, Incyte, Biofrontera, and Miragen. IK is an Investigator for Ferndale, Estee Lauder, Unigen, Johnson and Johnson, Allergan and Bayer, and is a Consultant for Pfizer, Johnson and Johnson, and Bayer. AFN and TLB are sub-investigators for Bayer, Estee Lauder, Unigen Inc., and Ferndale laboratories. TFM, CLN, NN, and KM have no relevant conflicts of interest to declare. MM was an employee of Estee Lauder. HWL is an Investigator for Estee lauder, Ferndale, Unigen, and Incyte and has served as a speaker in an educational session sponsored by Pierre Fabre. IHH is an Investigator for Estee lauder, Ferndale, Unigen, Johnson and Johnson, Bayer, Allergan, and Incyte, and is a consultant for Pfizer, Johnson and Johnson and Bayer.

Introduction

- Post-inflammatory hyperpigmentation (PIH) is an acquired hypermelanosis that presents after cutaneous inflammation or injury including acne
- Despite its frequent occurrence, treatment can be challenging

Background

- Hydrolyzed *Psoralea corylifolia* Extract (HPCE) product
  - Contains **bakuchiol**→ antimicrobial, anti-inflammatory, and antioxidant properties (Haraguchi *et al.* PTR, 2002)
  - Has been shown to reduce inflammatory and non-inflammatory acne lesions and may have a role in reducing acne-induced PIH (Katsura *et al.* Antimicrobial agents and chemotherapy, 2001)

Objective

- **To determine the treatment efficacy of topical HPCE product on acne-induced PIH and trichloroacetic acid (TCA)-induced PIH using a previously validated model**
  (Isedeh *et. al.* BJD, 2015)

Methods

- Prospective, single-blinded, non-randomized trial
- 20 subjects (skin phototypes IV-VI) with hx of acne-induced PIH
- Two acne-induced PIH areas on the face and two 35% TCA-induced PIH areas on the buttocks were analyzed
- Topical HPCE product [Unigen Inc.] vs control
- Twice daily application of HPCE product on facial and gluteal lesions for 28 days (Day 28-56)

Assessment Techniques

- Clinical photography and Investigator Global Assessment (IGA) scores for hyperpigmentation were performed on days 0, 28, 42, and 56
- Degree of improvement was defined as the change in the IGA score for hyperpigmentation between the first and last day of treatment

Results

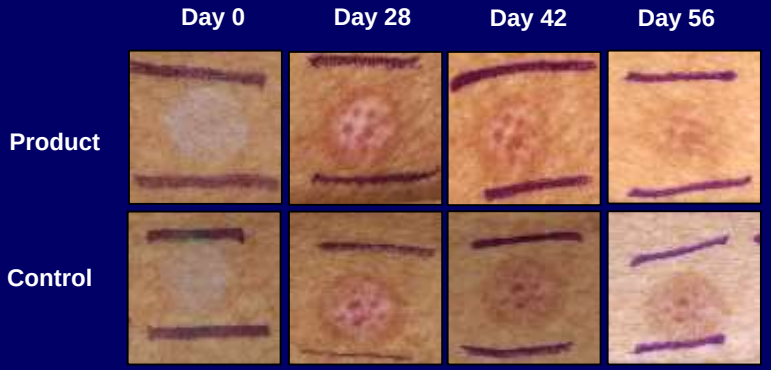
Acne-induced PIH sites:

- IGA analysis demonstrated a greater degree of improvement for product sites when compared to control (1.5 times); however, statistical significance was not reached

TCA-induced PIH sites:

- Statistically significant degree of improvement for product treated sites compared to control (9 times)

Acne-induced PIH sites



TCA-induced PIH sites

Conclusions

- Statistically significant improvement in TCA-induced PIH sites and some improvements in acne sites were observed for product sites compared to control sites
- TCA model resulted in identical PIH lesions to be followed over time, whereas there were differences in acne sites at baseline
- Findings indicate the relevance of using TCA as a model and suggest that topical HPCE may decrease the impact of PIH, a significant quality of life issue for patients

Questions?