16091

Topical effects of a natural retinol alternative: A clinical assessment of bakuchiol on sensitive skin

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Background: Patients with skin conditions such as atopic dermatitis/eczema, rosacea and cosmetic intolerance are classified as having sensitive skin. Sensitive skin is often associated with complaints of discomfort, which may result from epidermal barrier impairment. Typically, this population experiences skin discomfort with retinol-containing anti-aging products.

Objective: To evaluate the tolerability and efficacy of a cream containing 1% bakuchiol, a natural retinol alternative, in a clinically diagnosed sensitive skin population.

Methods: This 4-week, open-label, single-center clinical study was conducted in 60 women (ages 40-65), with sensitive skin resulting from eczema/atopic dermatitis, rosacea, or cosmetic intolerance. All subjects showed moderate signs of photoaging. Following baseline assessments, the test product was used twice daily for 4 weeks. Blinded subjects and investigator assessed efficacy and tolerability using a 5-point ordinal scale (0 = none, 4 = severe). Noninvasive assessments of barrier function by evaporimetry and hydration by corneometry were made. All evaluations occurred at baseline, 10 minutes, and weeks 2 and 4 after using the test product.

Results: The test product showed significant improvements in investigator-graded change from baseline to week 4 for all efficacy measures: smoothness, clarity, radiance and overall appearance. Subject-rated change from baseline demonstrated similar efficacy as the blinded investigator. There were no tolerability issues reported during the study duration. Significant improvements were noted in skin barrier function and hydration.

Conclusions: A topical product containing a natural retinol alternative bakuchiol was proven to be effective in improving the health of photodamaged skin without causing the signs of irritation typically observed with retinol products.

Commercial disclosure: 100% of this research was sponsored by Burt's Bees.

16093

Antioxidant efficacy of a facial treatment on human skin by UVA-induced chemiluminescence and its protective effects against UV irradiation−induced photodamage

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Background: Cutaneous photoaging is accelerated when oxygen radicals arise from UV radiation striking skin with insufficient endogenous antioxidant capability.

Objective: To quantify antioxidant potential using UVA-induced chemiluminescence (ICL-S) and to measure protective effects against solar-simulated UV irradiation−induced acute photodamage of a facial oil.

Methods: In study I, 22 healthy, female subjects (ages 20-60) were enrolled and initial ICL-S values were recorded for each test area. Controlled applications of the positive control and test facial oil were conducted daily for 2 weeks following measurement of the end values on the same areas. In study II, 10 healthy subjects were enrolled and dispensed a cleansing bar and facial oil to apply to one randomized buttock (2× daily) for 8 weeks. The other buttock was untreated. At week 8, subjects were irradiated on both treated and control buttock sites with 2MED UVB. 24 hours after irradiation, skin color was measured and 3 mm punch biopsies were obtained from both sites for hematoxylin and eosin staining.

Results: Study I showed that daily application of facial oil produced a significant 13% reduction in ICL-S signal versus a 12% increase in the signal for the untreated area. Study II showed that significant protection from UV radiation was offered by the facial oil as measured by reduced erythema in 88% of subjects and reduced apoptotic cells in 66% of subjects.

Conclusions: The topical facial oil exhibits significant antioxidant potential and demonstrates photoprotective effects, and therefore can be used effectively in management of photodamaged skin.

Commercial disclosure: 100% of this research was sponsored by Burt's Bees.

16107

The factors predicting the treatment response of auricular keloids

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Background: Auricles are common sites of keloid formation. Auricular keloid can occur not only to localize in auricles but also be one among keloids presented in several anatomic sites. However, there was no formal study that describe clinical comparison of auricular keloids between with and without lesions of another anatomic sites.

Objective: To compare clinical features of auricular keloid between with and without lesions of another anatomic sites.

Methods: Total of 61 patients who were diagnosed as auricular keloid and treated by surgical procedures in our clinic, between 2009 and 2019 were retrospectively reviewed. They were divided into two patient groups; Auricle-localized group (n = 30) and auricle-combined group (n = 31, group combined to auricles and another anatomic sites).

Results: The median onset age was 35.5 years and 56 patients (92.3%) were women. Auricle-localized group showed significantly younger onset age, lesser number of lesions, lesser familial association, and lower recurrence rate than auricle-combined group ($P < .05$). The overall recurrence rate was 7.8%. Their recurrence rates were significantly different (4.5% in auricle-localized group versus 14.4% in auricle-combined group; $P < .05$).

Conclusions: This study revealed that auricle-localized keloid showed better prognosis than auricular keloid with lesions of another anatomic sites.

Commercial disclosure: None identified.

16120

Sweet syndrome: A retrospective review of 27 cases at a single institution

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Background: Sweet syndrome (SS; also called acute febrile neutrophilic dermatosis) is characterized by the rapid onset of erythematous, tender papules, plaques, and nodules. It exists in 3 broad categories: classic SS (CSS), malignancy-associated SS, and drug-induced SS. This study was performed to identify clinical characteristics associated with biopsy-proven SS, and to compare features of each type of SS.

Methods: A retrospective review was performed of 27 patients with biopsy-proven SS from the Wake Forest Baptist Health system. Records were analyzed to identify demographics, location of lesions, Charlson Comorbidity Index (CCI), clinical features, laboratory findings, and treatments. Patients were separated into CSS and non-classic SS (NCSS, including malignancy- and drug-associated SS).

Results: The mean age was 57.6 years. Lesions favored upper extremities (78%), lower extremities (67%), and trunk (59%). 74% had fever. Extracutaneous manifestations included pulmonary symptoms (37%), gastrointestinal symptoms (33%), and arthralgia (30%). Laboratory abnormalities included anemia (77%). The most common etiology was malignancy (48%) followed by preceding infection (36%). Treatments were oral (75%) and topical (65%) corticosteroids. NCSS patients were significantly older (64 vs 48 years, $P = .003$), had higher CCI scores (5.6 vs 1.6, $P = .0008$), and less arthralgias (55% vs 13%, $P = .03$).

Discussion and Conclusion. This study is consistent with previous studies, including location of lesions, response to steroids, and association with malignancy. NCSS patients were older and had significantly greater comorbidities. These findings may indicate that NCSS has a worse prognosis than CSS. Prompt recognition of SS with evaluation of the etiology may be life-saving.

Commercial disclosure: None identified.