PIGMENTATION

CLINICAL EVALUATION OF A FACIAL SERUM CONTAINING 3% TRANEXAMIC ACID ON WOMEN WITH MILD TO MODERATE SKIN PIGMENTATION CONDITIONS

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Introduction: Melasma and post-inflammatory hyperpigmentation (PIH) are two notoriously challenging forms of cutaneous hyperpigmentation that are prevalent among diverse skin types. Multiple factors have been implicated in their pathogenesis and treatment is typically focused on a variety of mechanisms prevent or modify steps in the pigment production process. Research has suggested tranexamic acid (TXA) has the ability to help control pigmentation by inhibiting the release of inflammatory mediators, such as PGE2, which is integral in melanogenesis. The goal of the present study was to evaluate the efficacy and tolerability of a facial serum containing 3% TXA, 1% kojic acid, and 5% niacinamide on women with mild to moderate melasma or PIH.

Method: This single-center, 12-week clinical study was conducted on 55 healthy females with Fitzpatrick types I-IV. At least half the panel self-reported sensitive skin. Subjects presented with mild to moderate melasma (modified mMASI scale), PIH, hyperpigmentation, skin texture, and skin tone unevenness. Subjects were instructed to use the facial serum twice daily, in conjunction with daily use of sunscreen. Evaluations conducted under the supervision of a dermatologist included clinical grading, instrumental measurements, and photography at baseline and weeks 2, 4, 8, and 12. The melanin index and erythema index of lesional melasma and PIH were measured by Mexameter at each time point. In addition, subjects responded to self-assessment questionnaires.

Results: From week 2 to week 12, there were statistically significant improvements in the clinical grading assessments for melasma, PIH, hyperpigmentation, uneven skin tone and skin texture when compared to pre-treatment. Mexameter evaluation showed significant improvement in both lesional melasma and PIH in as early as 4 weeks which were sustained through week 12. Overall, the product was well tolerated and well perceived by subjects.