EFFICACY OF A TOPICAL FORMULA CONTAINING 10.5% ASCORBIC ACID IN THE TREATMENT OF AGING SKIN.

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Background: Vitamin C (Ascorbic Acid) is the primary water-soluble antioxidant found naturally in our bodies. In the skin, it is a necessary cofactor in the production of collagen. Vitamin C is used in topical skincare products for its antioxidant functions. Formulation is challenging as it is highly unstable, and products lose potency over time.

Objective: The objective of this study was to evaluate improvement of aging skin using a stabilized formulation of 10.5% Vitamin C in a novel, anhydrous formulation in an airtight and UV-shielded container.

Materials/methods: 57 women, ages 40-65, were treated using the Vitamin C formula twice daily for 6 weeks (6W). At baseline, participants were graded as having mild to moderate (scores of 3-6 on a 10-point scale) radiance, skin smoothness (tactile), skin smoothness (visual), skin tone clarity, skin tone evenness, global fine lines, global wrinkles, dark spots, overall hyperpigmentation and pores. 50% of participants reported self-perceived sensitive skin, Fitzpatrick skin types I-VI (at least 3 subjects per skin type, and 10% Fitzpatrick skin types V and VI). Efficacy evaluations were performed at baseline and 1, 2, 4, and 6W. A washout period of 2W was required for other topical skincare products.

Results: Significant clinical improvements were observed at 6W, compared to baseline. Expert clinical graders reported significant improvement on: fine lines, wrinkles, appearance of pores, skin smoothness (visual), Skin smoothness (tactile), Dark spots intensity (visual), overall hyperpigmentation, skin tone evenness, brightness, clarity and overall appearance of the skin, with a minimum change in grading score of -0.26 reported across all endpoints.

Conclusions: A 10.5% vitamin C anhydrous formula in an airtight, UV-shielded container
demonstrated visible clinical benefits on all measures of aging skin with continued use for 6W.