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Harnessing indigenous botanicals in the management of hyperpigmentation: A clinical approach in kenyan dermatology

Njeri Kamau
University of Nairobi.Kenya

Statement: Hyperpigmentation remains one of the most common cosmetic dermatological concerns globally, often leading to psychosocial distress among patients. In Kenya, the increasing demand for safe, cost-effective, and culturally resonant treatments has driven attention toward indigenous botanical formulations. This study explores the efficacy of locally sourced plant-based treatments for managing post-inflammatory hyperpigmentation (PIH) in Kenyan populations.

Methodology: A six-month clinical trial was conducted involving 120 patients aged 18–50 with varying degrees of PIH. Participants were divided into three groups: a control group receiving standard hydroquinone treatment, and two test groups receiving topical applications of botanical formulations derived from Aloe secundiflora and Moringa oleifera. The Fitzpatrick skin type scale was used to assess baseline pigmentation levels. Patients were evaluated biweekly using the Melanin Index (MI), Dermatology Life Quality Index (DLQI), and standardized photography. Side effects and patient satisfaction were also recorded.

Conclusion: The results indicated significant reduction in pigmentation scores among participants treated with Aloe secundiflora-based cream, with comparable efficacy to hydroquinone but with fewer adverse reactions. Moringa oleifera showed moderate improvement and excellent tolerability. Patient feedback reflected high satisfaction and cultural affinity toward the use of natural products. This study supports integrating indigenous botanical therapies into mainstream cosmetic dermatology and emphasizes the need for further large-scale, double-blinded studies.