EXPLORING THE EFFICACY OF A DERMOCOSMETIC SERUM IN THE MANAGEMENT OF FACIAL SOLAR LENTIGOS, MELASMA AND POST-INFLAMMATORY HYPERPIGMENTATION IN SOUTH AFRICAN AND SOUTH AMERICAN PANELS

Authors: **Susanna KANNENBERG**[1], Alejandra PIEGARI FELIU[2], Shantal VALDES[2], Meagan OLEVANO[4], Sandrine BERGERA VIRASSAMYNAIK[5], Audrey GERSTEL[5], Elodie PRESTAT MARQUIS[5]

Corresponding author: Dr Susanna KANNENBERG (surethak@sun.ac.za)

[1]MMed Derm, MBChB, Stellenbosch University, Cape Town, South Africa

[2]CIREC LATAM, Buenos Aires, Argentina

[4]NAOS South Africa, Medical Department, Sandton, South Africa

[5]NAOS Ecobiology Company, Research and Development Department, Aix-en-Provence, France

BACKGROUND

Facial hyperpigmentation is a prevalent dermatological concern that can significantly affect quality of life and well-being. This condition is influenced by a variety of internal and external factors, including genetic predisposition, hormonal imbalances, pregnancy, aging, photosensitivity, excessive sun exposure and pollution.

The production of excessive melanin leads to hyperpigmentation, which can manifest in several forms such as solar lentigos, melasma, and post-inflammatory hyperpigmentation (PIH). Standard treatments for hyperpigmentation, such as Kligman's Trio, can be aggressive and poorly tolerated, frequently leading to relapses. Given the psychological distress and impact on quality of life that hyperpigmentation can cause, broad-spectrum sunscreens are recommended to prevent worsening from UV exposure. Furthermore, a range of treatments may be necessary to effectively manage this condition.

OBJECTIVES

The aim of these studies was to evaluate the efficacy and tolerability of a pigmentation correction serum enriched in vitamin C and its effect on quality of life.

METHODS

Studies were carried out in 2 different countries with an open label, intra-individual comparative analysis including 39 subjects in South Africa (ZA) and 31 subjects in Argentina (AR) respectively. Subjects enrolled presented phototype IV to VI with solar lentigos, melasma or PIH. Clinical and instrumental evaluations as well as self-assessments were performed at 4 visits (at D0, D28, D56, and D84).

RESULTS

As part from these results, from D0 to D84, in South Africa, the serum demonstrated significant clinical efficacy by decreasing the number (*ZA*. -45%; p<0.001; Wilcoxon test) shown in Figure 1 and their size (*ZA*. -29%; p<0.001; Wilcoxon test) shown in Figure 2.

Significant decrease of pigmented spot intensity (*AR*. -37% and *ZA*. -42%; p<0.001; Wilcoxon test) was demonstrated in both cohorts. Complexion homogeneity evaluation in Argentina resulted in significant increase from D0 to D84 (*AR*. +26%; p<0.001; Wilcoxon test) shown in Figure 3.

The colorimetric measurement of Individual Typology Angle (ITA) statistically increased between D0 and D84 (*AR*. +20%; p<0.001) in both pigmented and non-pigmented skin (*AR*. +57%; p<0.001; Wilcoxon test). These results showed a decrease in the measured skin pigmentation level (Figure 4).

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Illustrative pictures. 19-year-old man with post-inflammatory pigmented spots on the right malar region at D0 and D84(Subject #2)

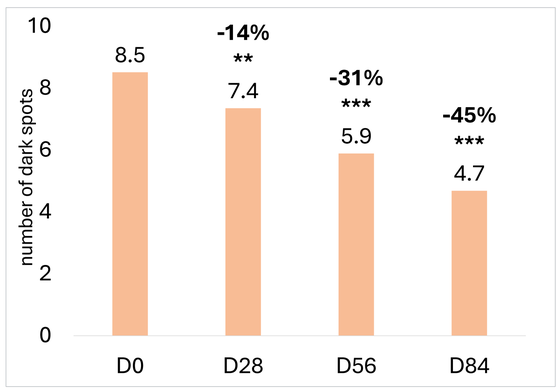

Figure 1. Mean number of dark spots
(** p-value <0.01; ***p<0.001; Wilcoxon Test)

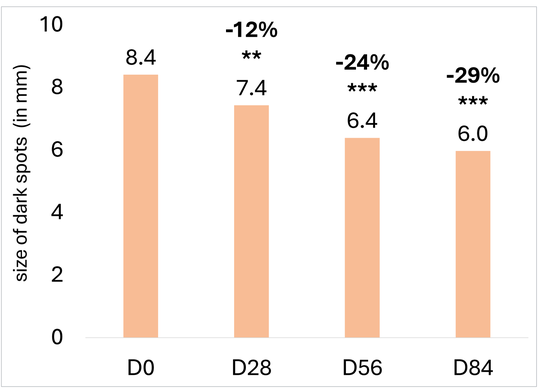

Figure 2. Mean size of dark spots
(** p-value <0.01; ***p<0.001; Wilcoxon Test)

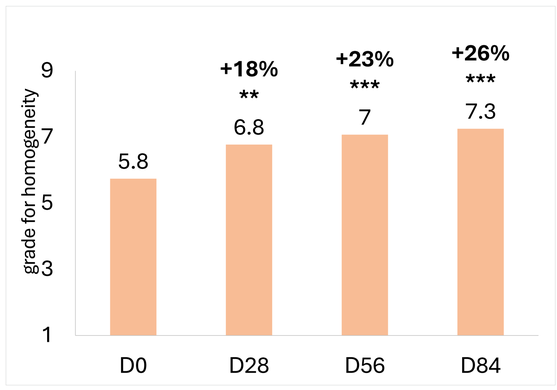

Figure 3. Mean complexion homogeneity
(** p-value <0.01; ***p<0.001; Wilcoxon Test)

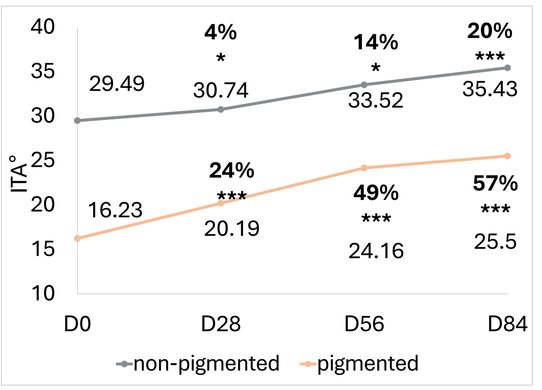

Figure 4. Mean ITA results
(* p-value<0.05; ** p-value<0.01; ***p<0.001; Wilcoxon Test)

CONCLUSIONS

A pigmentation correction serum for managing solar lentigos, melasma and post inflammatory hyperpigmentation demonstrated clinical and colorimetric measurement efficacy, tolerance and a positive impact on quality of life, in patients with skin of color.

Disclosure: Shantal VALDES, Meagan OLEVANO, Sandrine BERGERA VIRASSAMYNAIK, Audrey GERSTEL and Elodie PRESTAT MARQUIS are employees of NAOS, Ecobiology Company. Dr Susanna KANNENBERG and Dr Alejandra PIEGARI FELIU received grants from NAOS for conducting the study.