

## INTRODUCTION

In skin aging processes, changes occur in subcutaneous structures, with changes in the structural properties of the skin. These alterations are mainly caused by the decrease in the proliferative capacity of the cells and by the reduction of their biosynthetic capacity, thus decreasing the synthesis of the extracellular matrix of the dermis. Skin aging is irrevocable, however, there are preventive ways to delay it. Various studies demonstrated a potential role for topical dermocosmetics with associating Botulinum Toxin (BT) injection to improve skin quality. Given such promising potential, we aimed to evaluate the effectiveness of the cosmetic product Cream in providing improvement in the skin roughness, elasticity and hydration of the facial skin with the of botulinum toxin injection.

## METHODS & MATERIAL

Patients were divided into two groups, in which the first group should apply AHS during the following 60 days, as instructed, and the second group should not apply any type of cream to the skin. All patients underwent the application of BT, following all the manufacturer's guidelines, in addition to having been properly oriented for the correct application of the AHS.

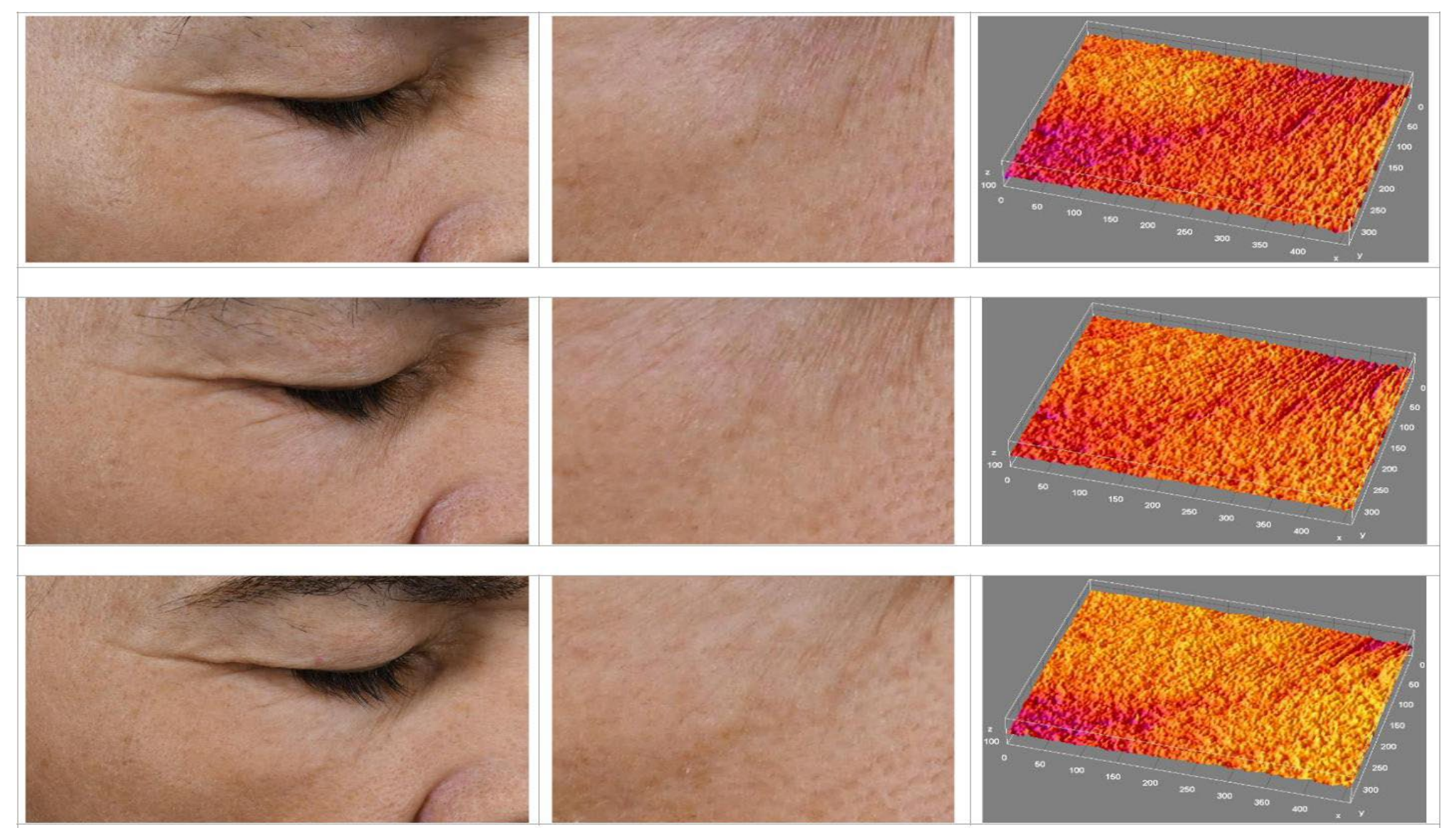
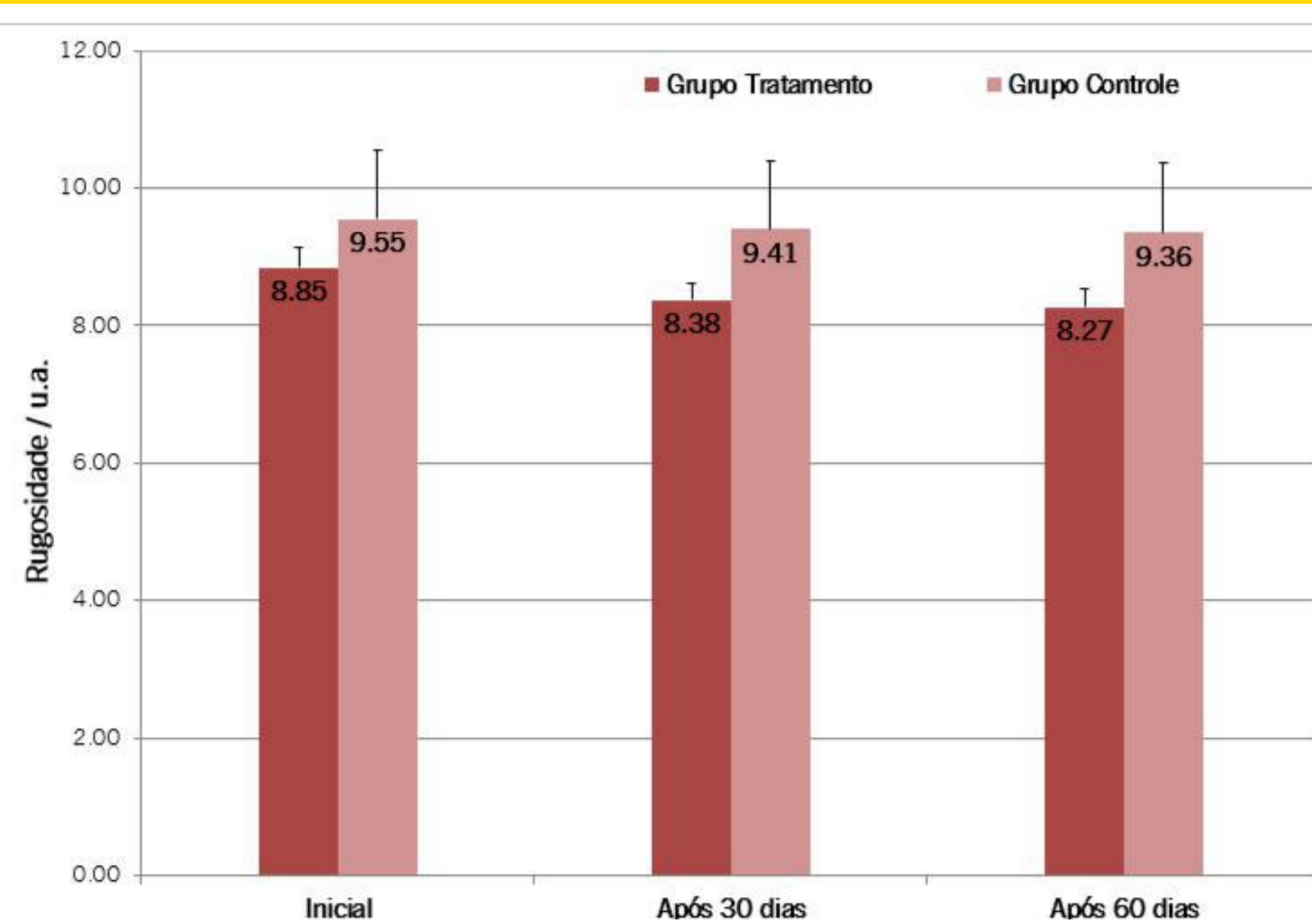
Measurements were performed using the Cutometer<sup>®</sup> MPA-580 probe, with an opening of 2 mm in diameter, coupled to the Multi Probe Adapter, MPA-580 equipment. Measurements were performed by applying 3 cycles of 3 seconds of suction followed by 3 seconds of relaxation using a pressure of 400 mbar. Three measurements were performed at the site at each evaluation time (baseline (after 20 days of BT injection) and after 30 and 60 days).

## DISCUSSION

The association of Botulinum toxin (BT) injection and the dermocosmetics to treat moderate to severe facial wrinkles, fine lines and surface wrinkles caused by the age-related is promising treatment option in dermatologic therapy. Recent studies revealed that the combine therapy of BT injection with dermocosmetics can provide significant improvement of skin quality. Topical skin care products are known to improve facial esthetics and are commonly used in anti-aging protocols. Nevertheless, a few clinical evidences regarding using topical skin care therapies as an adjunctive treatment in facial rejuvenation with BT treatments was demonstrated.

Therefore, the primary purpose of this study was to characterize the effect of dermocosmetics in skin care lines combined with neurotoxin on skin quality. We specifically investigated AHS and according to the results observed in this study, AHS provided an increase of 8.1% in RO after 60 days of treatment, when compared to the initial condition. 91% of research participants showed improvement in RO after 60 days. In aspects of EL, there was no significant variation after 30 and 60 days, both for the treatment group and for the control group, indicating that there was no change in EL, with compared to the initial condition (20 days after BT injection). An increase in skin hydration of 9.7% after 30 days and 14.0% after 60 days of treatment was observed herein. 100% of the research participants showed improvement in SH after 30 and 60 days of using the AHS. Our results are corroborated with Landau et al., which reported synergistic esthetic benefits in patients treated with a combination of BT injection.

## RESULTS



Was possible to observe that was a significant increase ( $P < 0.05$ ) after 60 days of home use of the dermocosmetics for the treatment group. There was no significant variation ( $P > 0.05$ ) after 30 and 60 days for the control group, showing no change in RO, when compared to the initial condition (20 days after BT injection). The treatment group, showed a statistically superior increase in RO ( $P < 0.05$ ) after 60 days of home use, compared to the control group. There was no statistically significant difference ( $P > 0.05$ ) between the treatment group and the control group, when compared with 30 days after the beginning of the study (20 days after BT injection).

## CONCLUSION

In conclusion, within the limitation of this study, we have demonstrated that dermocosmetics combined with BT injections achieve significant improvement in skin quality. With the advantage of good accessibility, low-cost and non-invasive topical skin treatments, the association of dermocosmetics and BT injections can be an excellent option for skincare improvement.

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