

SYNERGISTIC EFFECT OF TWO DERMOCOSMETICS CONTAINING DIFFERENT SIZES OF HYALURONIC ACID IN COMBINATION WITH CO2 LASER FOR SKIN AGEING IN BRAZILIAN WOMEN A PROSPECTIVE, CONTROLLED STUDY

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INTRODUCTION & OBJECTIVE

Hyaluronic Acid (HA), alone or in combination with other active ingredients, has been widely applied in cosmetic industries due to its multiple biological effects, as skin hydration, extracellular matrix stimulation, wound healing, tissue regeneration and anti-inflammatory properties. The purpose of this study was to evaluate the synergistic effects of an ablative procedure with a skincare routine using topical ampoules (product A) containing three different sizes of HA, Vitamin B5, glycerin, copper gluconate and La Roche-Posay Thermal Spring Water and a topical serum (product B) containing two different sizes of HA, Vitamin B5, madecassoside and La Roche-Posay Thermal Spring Water to improve the skin aging signs in Brazilian women.

MATERIALS & METHODS

88 healthy females aged from 45-70 YO, phototype II to III (Fitzpatrick), with normal to dry skin and moderate wrinkles (Scale 3 to 4 by L'Oreal Skin Aging Atlas – Caucasian Type). Then, subjects were randomized were included in the study. All subjects were submitted to CO2 laser procedure with standardized parameters. After that, the subjects were randomized into two groups: treatment and control. The treatment group (n=45) was instructed to use 1/ product A: one ampoule immediately after the procedure and once daily during the next 7 days; and 2/ product B: the topical serum was used once daily during 77 days. The control group (n=43) was instructed to use vaseline, a positive control, immediately after the procedure and once daily during the next 7 days, then, subjects kept their skin without any topical treatment. All subjects used a sunscreen SPF60 by every day. The repair efficacy was evaluated by dermatologist and subjects after the procedure (immediately, D1, D3 and D7). The anti-aging efficacy was evaluated clinically after 7, 56 and 84 days. The cosmeticity and tolerability were also evaluated.

RESULTS

The topical ampoules (Product A) showed a similar repair profile than vaseline, a knowledge positive control to support the skin repair after post-procedure (Figure 1).

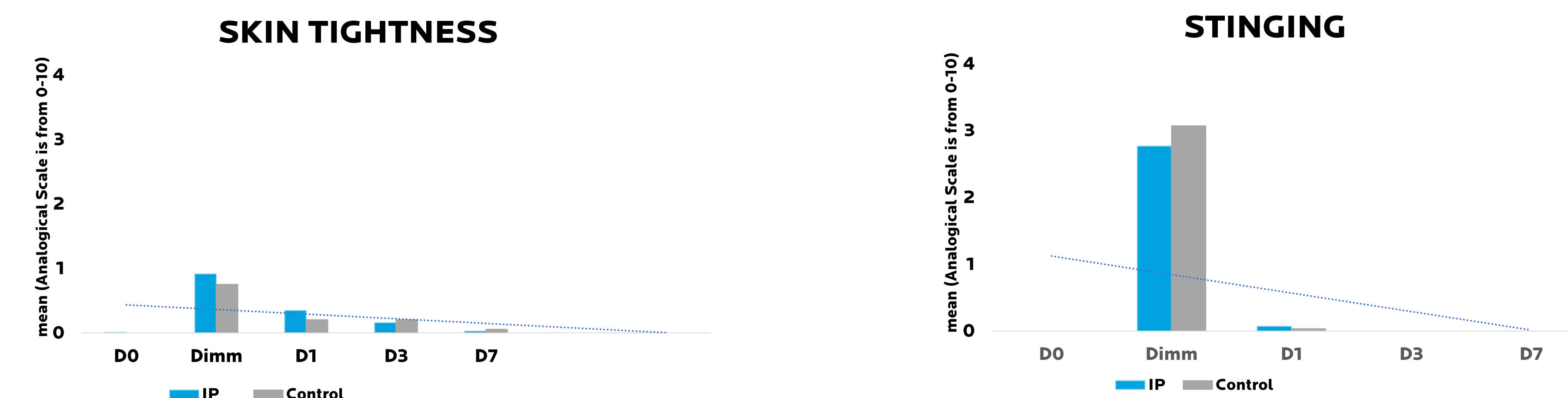
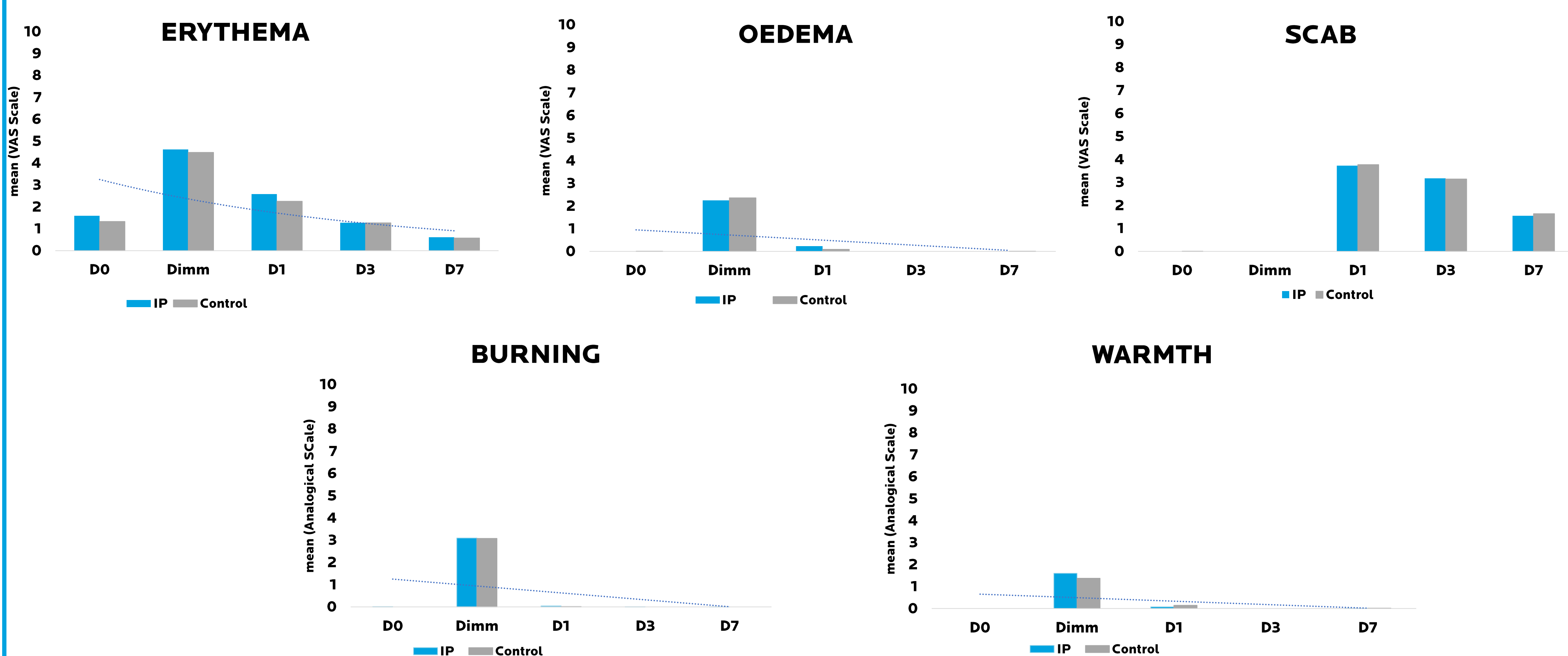


Figure 1: Comparative results between treatment and control groups regarding the medium improvement of post-procedure physical and functional signs observed by dermatologists and subjects.

The ampoules showed a very good tolerance after the post procedure. The cosmeticity was better in the treatment group than in the control group, with better texture, fragrance, absorption ($p < 0.05$). More than 90% of subjects considered the topical ampoules easy to apply, spread and dose during the 7 days of use post-procedure. The ampoules showed a synergistic anti-ageing effect with laser procedure. Indeed, after 7 days of application, there was already a significant reduction of wrinkles ($p < 0.05$) when compared to control group.

Additionally, the inclusion of topical serum (Product B) after these 7 days, followed used for a total of 77 days, showed an additional benefit to CO2 laser with significantly better results on wrinkles and radiance at day 84 compared to the control group ($p < 0.05$), Figure 2.

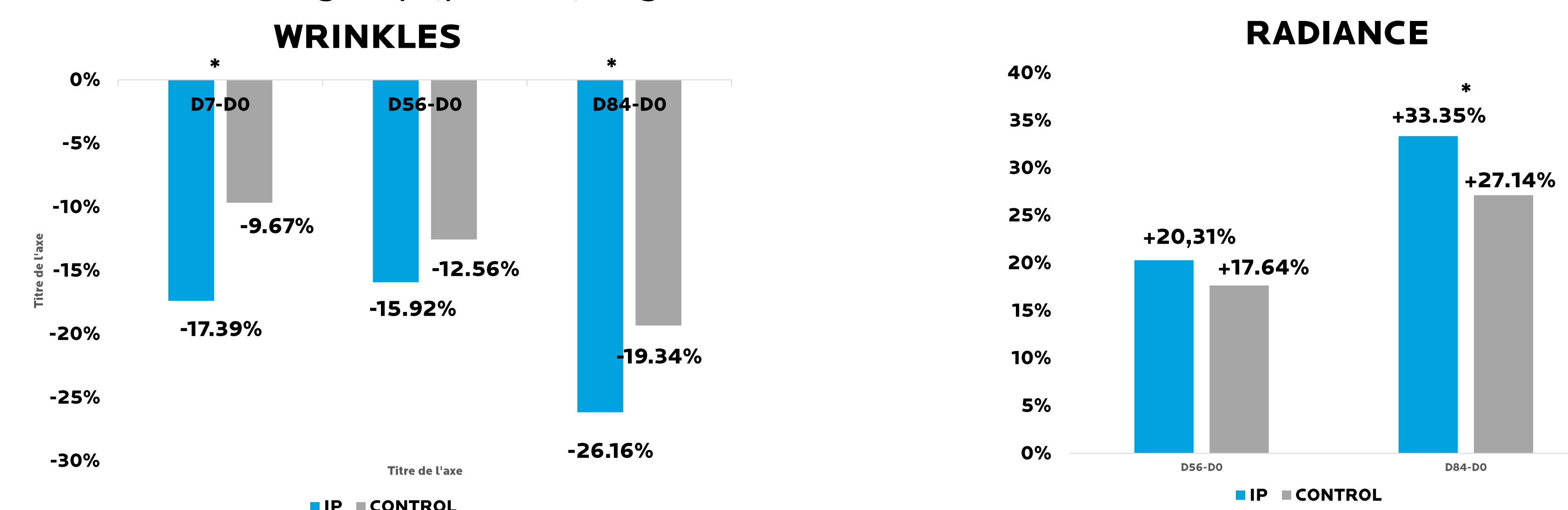


Figure 2: Comparative results between treatment and control groups regarding the medium improvement of aging signals. Note (*) represents the statistical significance ($p < 0.05$) when compared to control group.

DISCUSSION

The addition of 2 HA-based products (ampoules for anti-aging and repair benefit and serum for anti-aging effect) to CO2 laser procedures has several benefits in skin aging management:

- 1/ It improves skin recovery the same way as vaseline with a better cosmeticity
- 2/ It has synergistic effects in terms of skin ageing signs benefits such as wrinkle and radiance
- 3/ It leads to a high satisfaction of Brazilian women.

REFERENCES

- 1-Burkari SNA et al. *IJBM*; 2018; **120** (Pt B): 1682-1685
- 2-Czarnowicki T et al. *JACI*; 2016; **137** (4): 1091-1102.e7

Disclosure

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