

SYNERGISTIC EFFECT OF TWO DERMOCOSMETICS CONTAINING DIFFERENT MOLECULAR WEIGHT OF HYALURONIC ACID POST CO₂ LASER FOR SKIN AGEING IN BRAZILIAN WOMEN. A PROSPECTIVE, RANDOMIZED CONTROLLED STUDY

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INTRODUCTION

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.

MATERIAL & 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'Oréal Skin Aging Atlas – Caucasian Type) were included in the study. All subjects were submitted to CO₂ laser procedure with standardized parameters. After that, the subjects were randomised into two groups: treatment and control.

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 then 2/ product B: a topical serum 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 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

After 7 days, skin barrier repair was similar using the ampoules (product A) vs Vaseline with a better cosmeticity for the ampoules (p<0.005) and a very good tolerance (Figure 1).

More than 90% of subjects considered the topical ampoules easy to apply, and spread during the 7 days of post-procedure use.

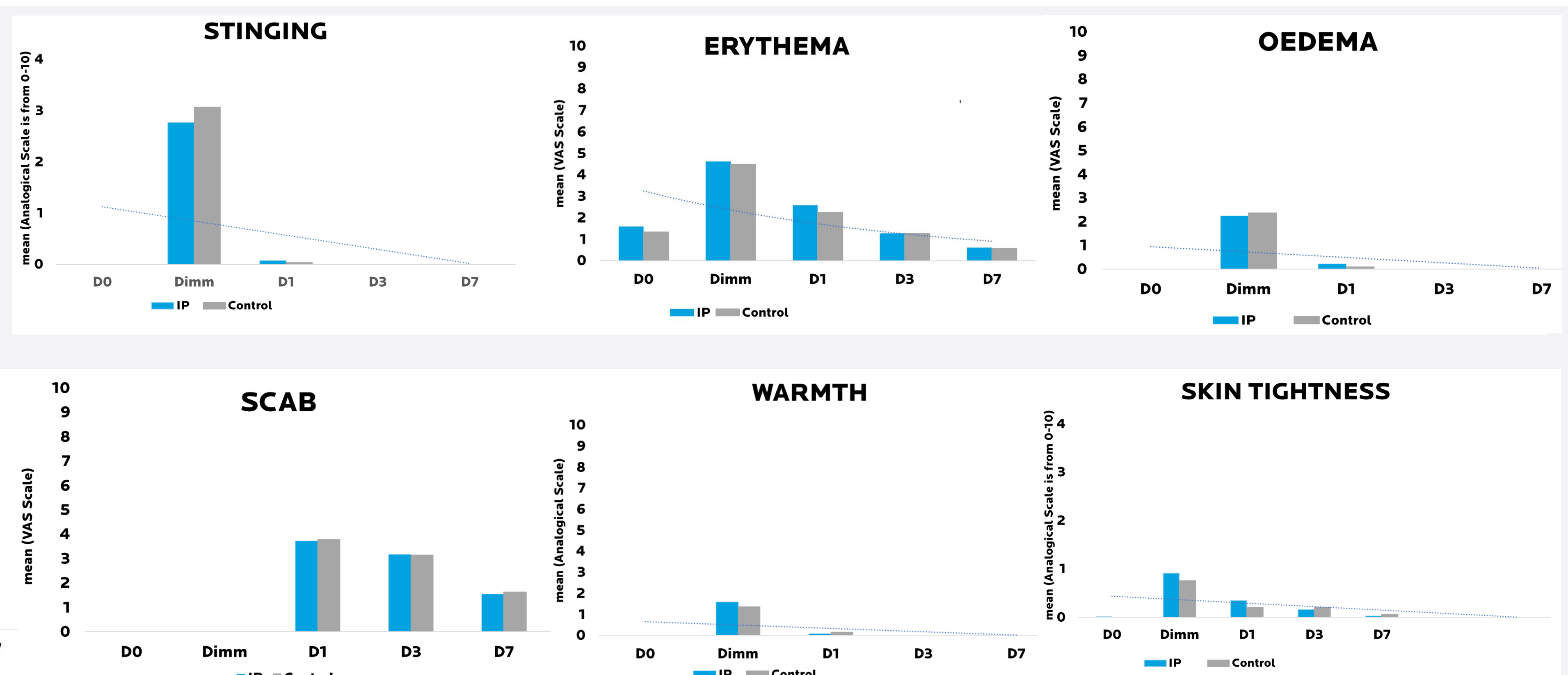
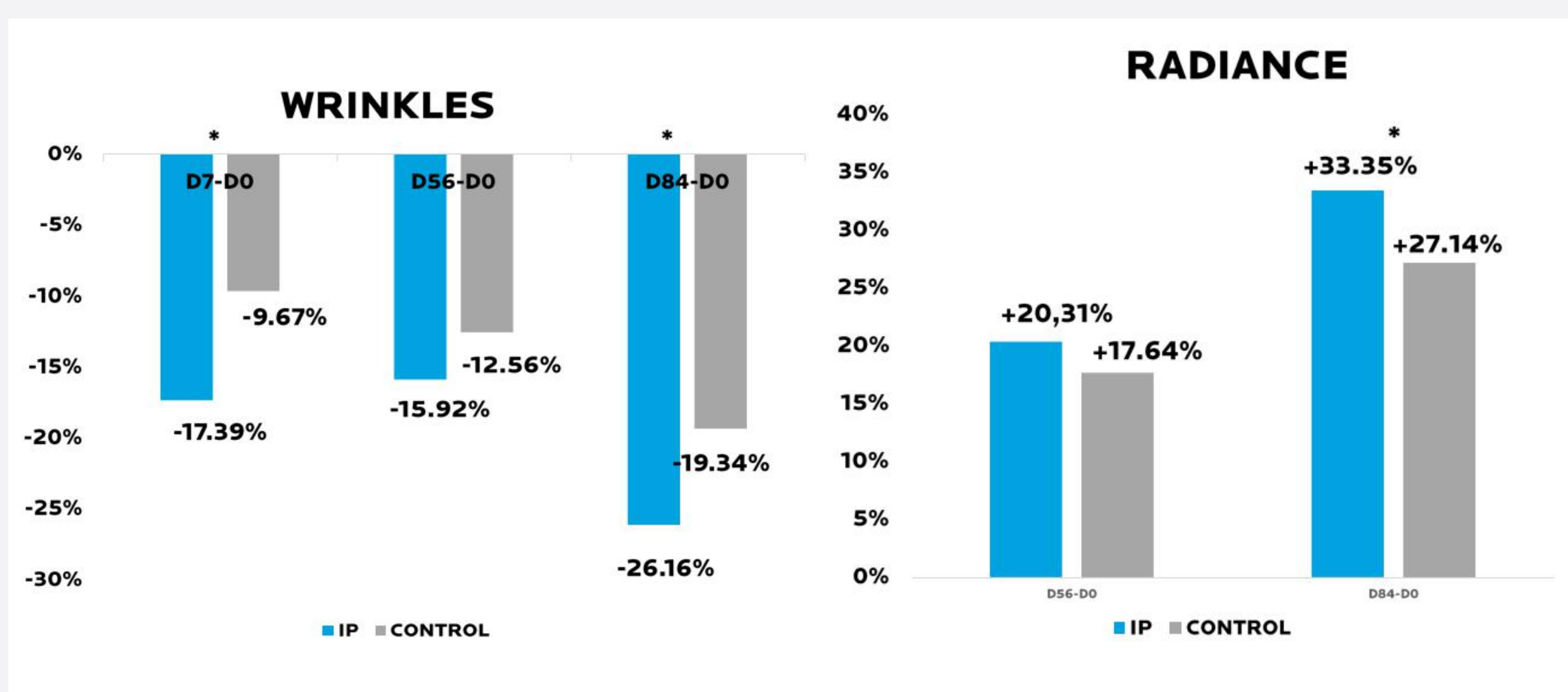


Figure 1: Comparative results between treatment and control groups regarding the mean improvement of post-procedure physical and functional signs observed by dermatologists and subjects during 7 days post procedure.



Following this first week post CO₂ laser, the addition of a topical serum (Product B) for the next 77 days showed an additional benefit with a significant improvement in 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 mean improvement of aging signs over 84 days. (*) 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 a 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.

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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