

FINAL RESULTS OF A STUDY EVALUATING THE EFFICACY AND SAFETY OF MIXTURE OF AMINO ACIDS AND SODIUM HYALURONATE IN COMBINED THERAPY OF SKIN AGING TREATMENT

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BACKGROUND

Skin aging treatment with a mixture of amino acids and sodium hyaluronate is currently very popular due to its high efficacy and safety. The background of the study was to evaluate the efficacy and safety of a mixture of amino acids and solution of sodium hyaluronate in combined therapy. The upper 1/3 part of the face was treated with the mixture of amino acids (glycine, L-proline, L-lysine and L-leucine) and 3 ml of 1% solution of sodium hyaluronate. The lower 2/3 part of the face was treated with 2.5ml of the mixture of amino acids (glycine, L-proline, L-lysine and L-leucine) and 2% solution of sodium hyaluronate.

OBJECTIVES

The primary goal of the study was to evaluate the effectiveness of the mixture of amino acids and sodium hyaluronate in combined therapy measured by improving facial skin quality using the 5-grade WSRS scale, improving facial volume measured with the 4-stage MERZ scale, and assessment of patient satisfaction using the GAIS scale. Secondary goals included: subjective assessment of skin tone improvement, reduction of skin erythema, assessment of healing after treatment, assessment of the level of treatment recommendation by the patient and assessment of the safety profile.

INTRODUCTION

The skin aging is a multidirectional process, caused by endogenous and exogenous factors. Intrinsic aging is associated with the passage of time and its course is individual. UVB and UVA radiation has a significant impact on the extrinsic aging process of the skin, resulting in increased epidermal stem cell apoptosis at the epidermis level. In the dermis, however, there is a decrease of the type I collagen in the extracellular matrix of the skin. Therefore, providing amino acids in the form of injections increases the viability and number of fibroblasts, which translates into improved skin tone and elasticity.

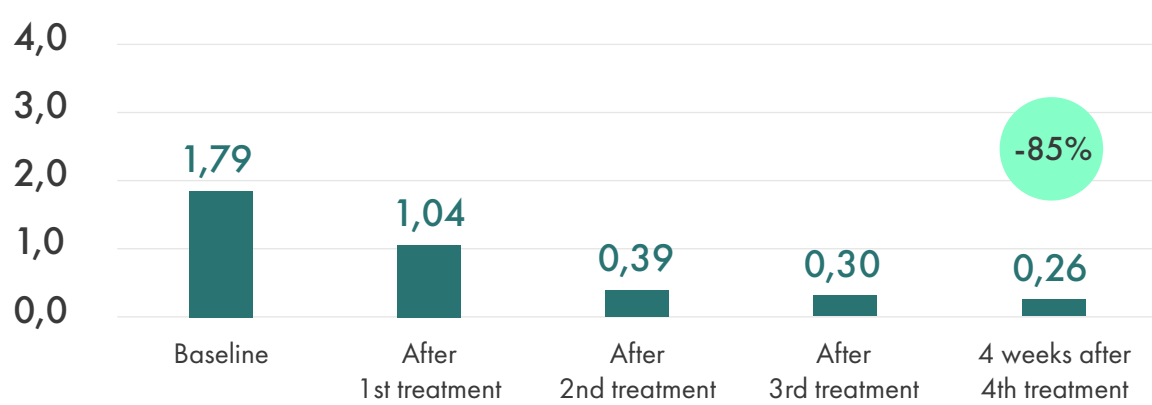
MATERIALS/METHODS

From July to September 2019, an observational study was conducted to assess the efficacy and safety of mixture of amino acids and solution of sodium hyaluronate in combined therapy of skin aging treatment. A total of 10 patients (9 women and 1 man) aged 46.3 (SD ± 6.2) participated in the study. All patients underwent 4 treatment procedures, carried out every 3 weeks (on average every 18.9 days). A follow-up visit was made one month after the last procedure (30.9 days on average). The upper 1/3 part of the face was treated with mixture of amino acids (glycine, L-proline, L-lysine and L-leucine) and 3 ml of 1% solution of sodium hyaluronate. The lower 2/3 part of the face was treated with 2.5ml of a mixture of amino acids (glycine, L-proline, L-lysine and L-leucine) and 2% solution of sodium hyaluronate.

RESULTS

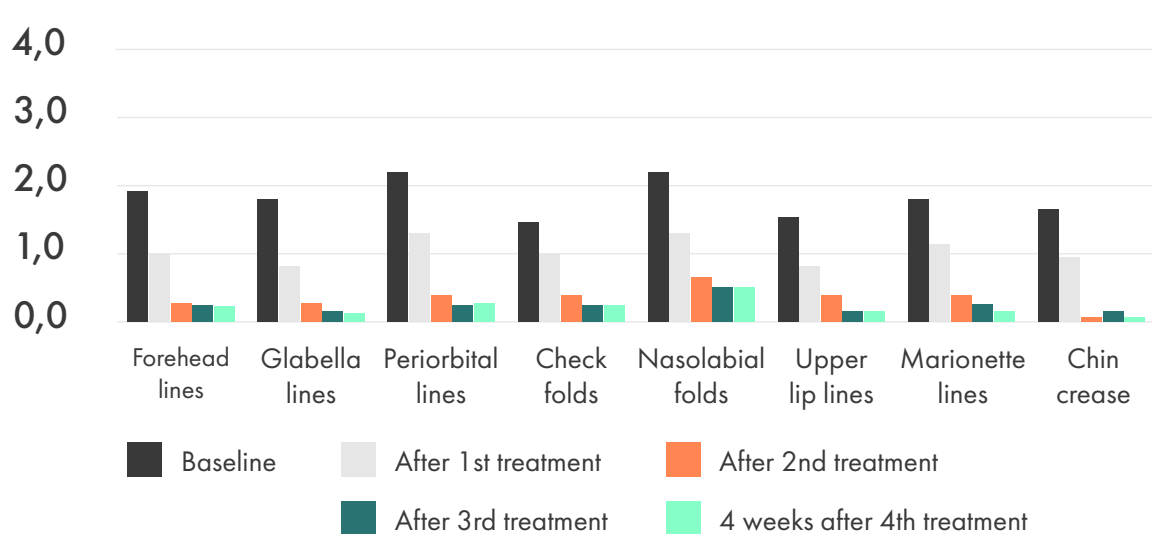
Four weeks after the last procedure, 85% reduction of wrinkles on the WSRS scale (graph 1 and 2) and restoration of facial volume by 65% on the MERZ scale were obtained (graph 3).

AVERAGE WRINKLES REDUCTION IN WSRS SCALE



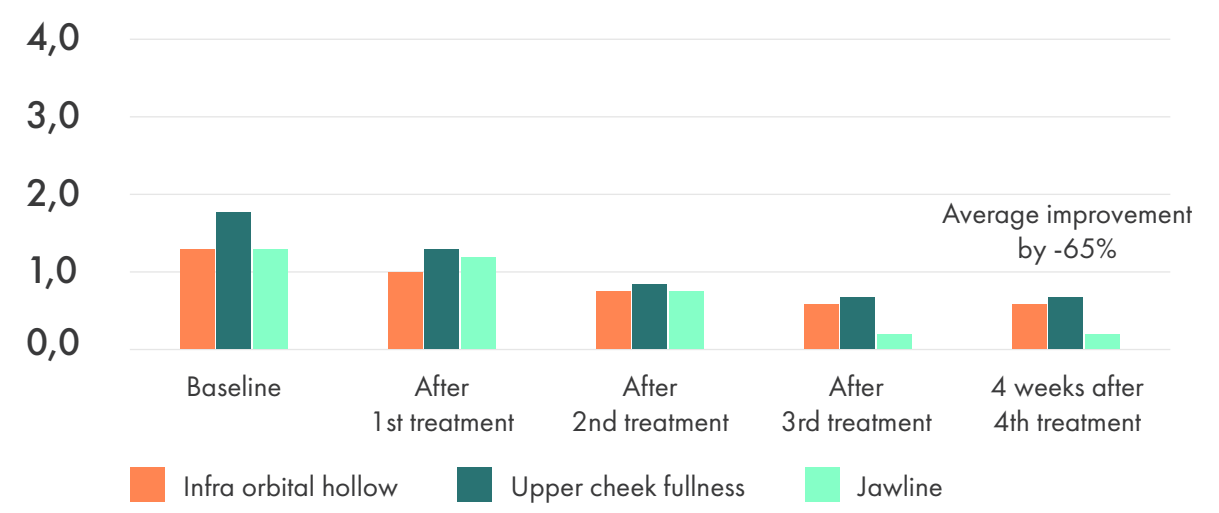
Graph 1: Average wrinkles reduction after amino acids treatment

WRINKLES REDUCTION IN WSRS SCALE IN RESPECTIVE AREAS



Graph 2: Wrinkles reduction after amino acids treatment in respective areas of the face

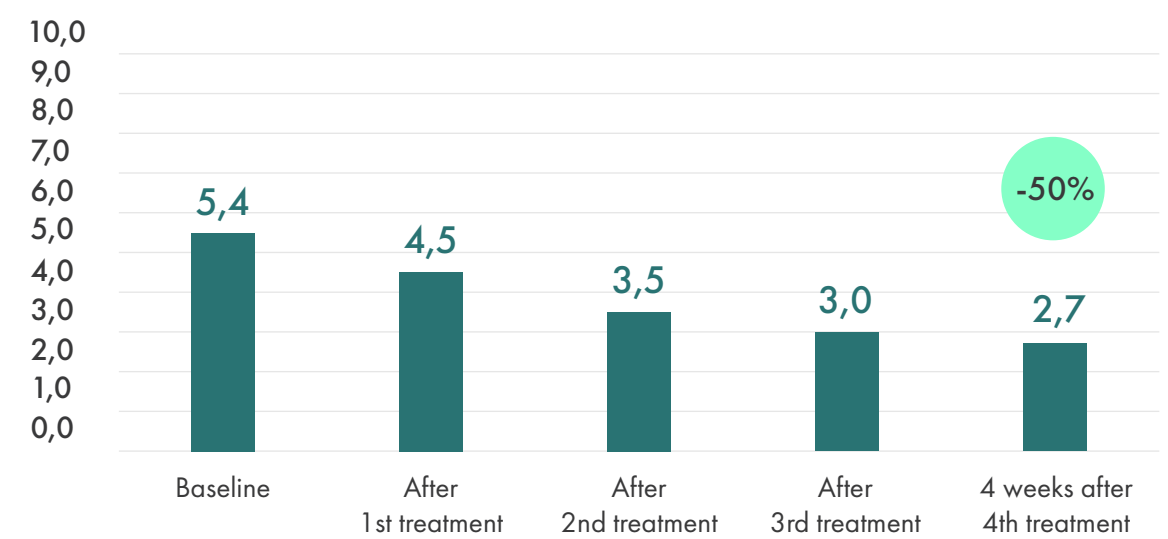
VOLUME IMPROVEMENT IN MERZ SCALE



Graph 3: Volume improvement after amino acids treatment

During the observation, the reduction of the soft tissue sagging measured by the 10-point VAS scale was evaluated. After 4 treatments, a 50% reduction in the skin sagging was obtained (graph 4). After 4 treatments, skin erythema was reduced by 20% (from 4.5 to 3.6 in VAS scale).

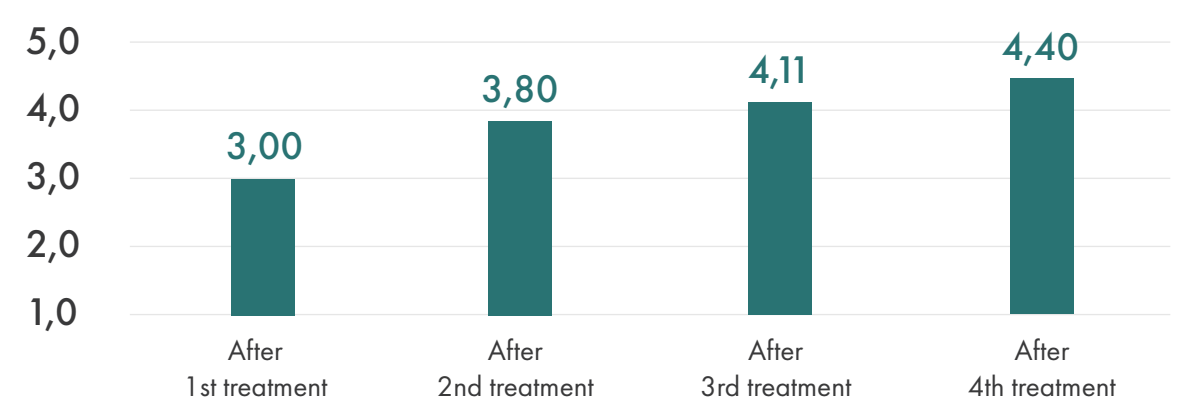
SKIN SAGGING REDUCTION IN VAS



Graph 4: Skin sagging reduction in VAS

4 weeks after the last treatment, all patients assessed the effects of treatment as at least a significant improvement (≥4 points) and in 40% of them the optimal aesthetic effect (5 points on the GAIS scale) was obtained. The average patient satisfaction with the effects of treatment measured by the GAIS scale was 3 (SD ± 0.0) after the first, 3.8 (SD ± 0.4) after the second, 4.11 (SD ± 0.3) after the third and 4.4 (SD ± 0.5) four weeks after the 4th treatment. Graph 5 presents detailed results of patient satisfaction.

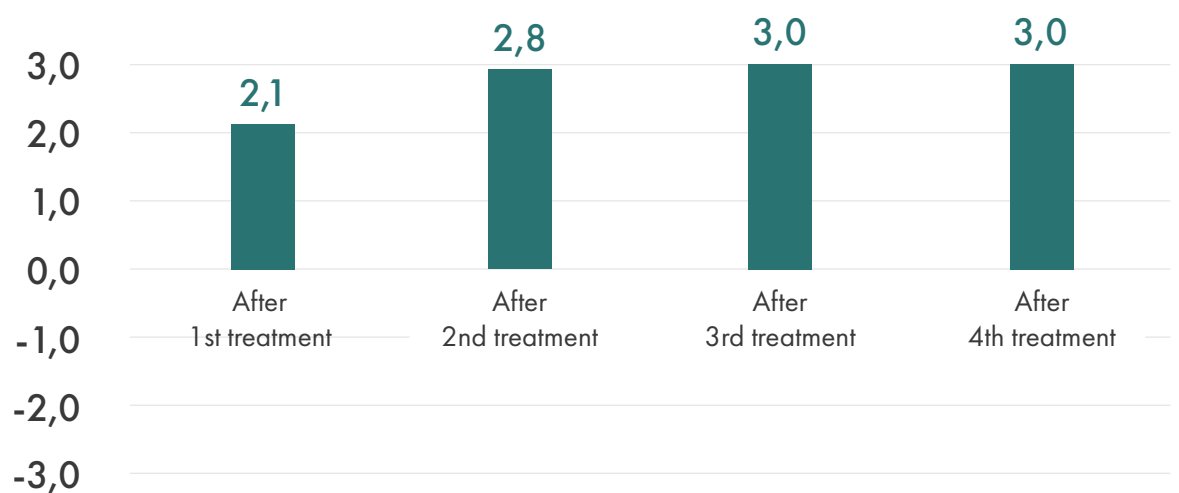
PATIENTS' SATISFACTION IN GAIS



Graph 5: Patient's satisfaction in GAIS

100% of patients participating in this clinical observation strongly recommend this procedure to other patients (graph 6).

PATIENT'S TREATMENT RECOMMENDATION



Graph 6: Patient's treatment recommendation

No significant adverse effects were observed during the study.

CONCLUSION

In conclusion, it should be emphasized that the results of the study can confirm that combination therapy with amino acids is efficient and safe. Patients noted the spectacular effects around the eye and the improvement of skin tone and reconstruction of the volume of 2/3 of the lower face.