

Results on Tear Trough Deformity and Upper Lip Regional Wrinkles Correction by an Innovative Hyaluronic Acid Injectable Filler

E. Tampouratzi MD¹, S.M. Radwan MD², A. Christopoulos MD³, K. Talaiporou⁴, I. Katsantonis MD, PhD¹

1. Dermatologist-Venereologist, Tzaneio General Hospital, Piraeus, Greece, 2. Dermatologist-Venereologist, Kuwait

3. Plastic Surgery, Athens, Greece, 4. Department of Business Administration, School of Administrative, Economics and Social Sciences, University of West Attica, Athens, Greece

Introduction & Objective

Infraorbital hollow, also known as “tear trough”, as an early sign of aging is usually demanded to be treated by aesthetic patients, with nonsurgical procedures¹. A similar request frequently follows concerning the vertical upper lip wrinkles (“barcode lines”). Facial aging, except tear trough area, causes changes in perioral hard and soft tissue leading to wrinkles, folds, and loss of contour and volume of the lips and surrounded area². In the present study both areas were treated by a mild, flexible hyaluronic acid filler consisted of properly dispensed ultrafine multi spheres, ultimately produced by an innovative method (S.C.E.D.I.S). We examined the overall cosmetic outcome in 20 female patients.

Materials and Methods

Twenty female patients (mean age 45 years old) with obvious tear trough deformity and 15 of them having also intense barcode lines, were enrolled in the study. The outcome (separately for each treated area) was estimated by VISIA analysis to objectively classify pre and post treatment image in a two months follow-up. Face-Q questionnaire was also applied to estimate the subjective feeling about the treatment outcome, before, after and in two months follow-up³. Hayluronic acid filler consisted of both high and low molecular weight cross-linked monophasic H.A. spheres. For the statistical analysis the Friedman ANOVA and the Wilcoxon signed-rank Test was used.

Results

Except aesthetical improvement as shown in figure 1 (patient before and after treatment in the tear trough area, the statistical analysis concluded significant results ($p = 0.063$ for $\alpha = 0.10$) for Wrinkles, which proceed the favorable effect of the investigated product (figure 2).

The FACE-Q Questionnaire as statistically estimated (by a proper bar chart according to established methods) showed statistical significance to support the beneficial influence of the material tested ($p = 0.001$, $p = 0.023$, $p = 0.018$ for $\alpha = 0.05$) (figure 3).



Figure 1: Patient before and after tear trough filler application.

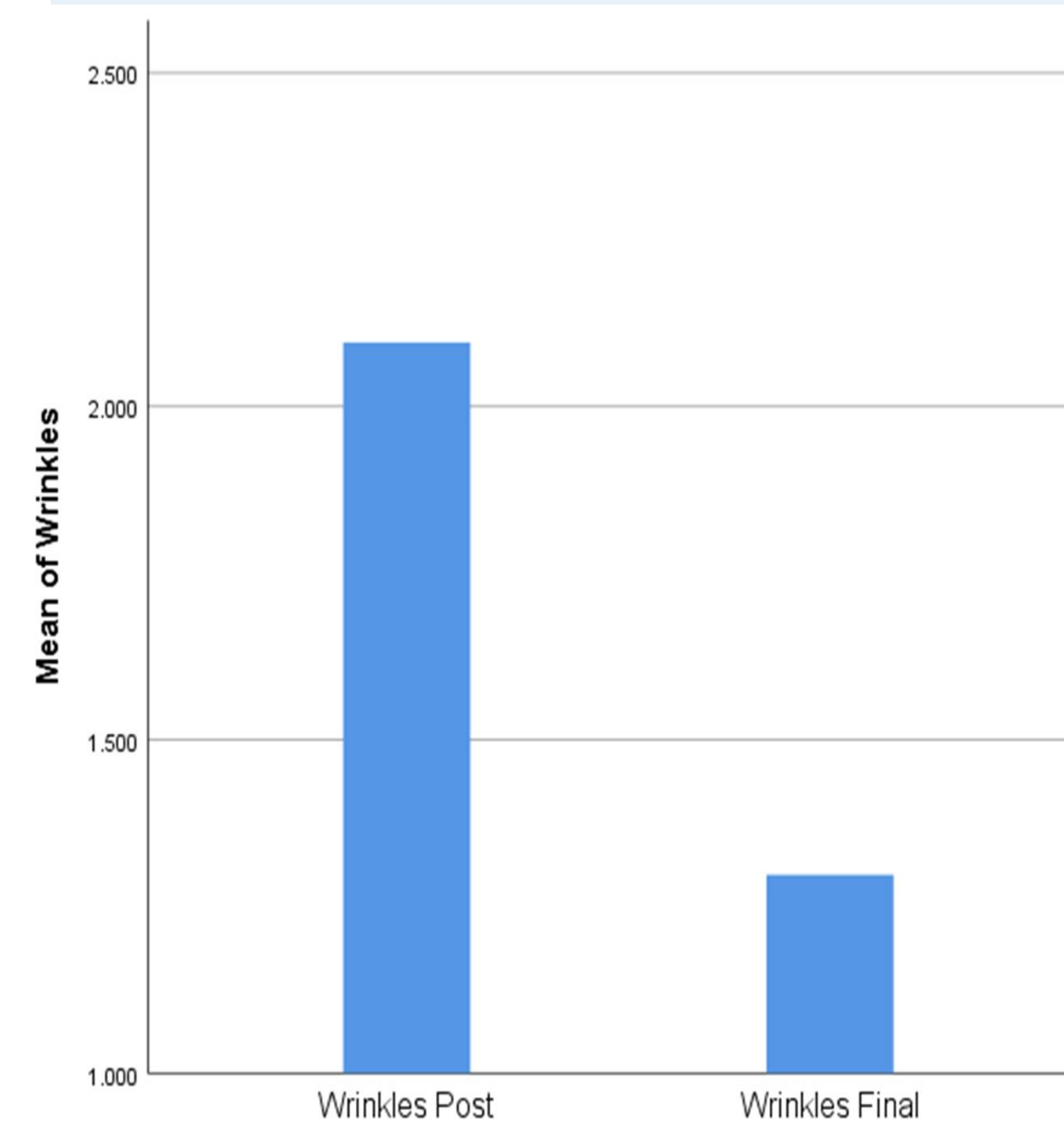


Figure 2: Bar charts for Means of Wrinkles Variable Post and Final Treatment

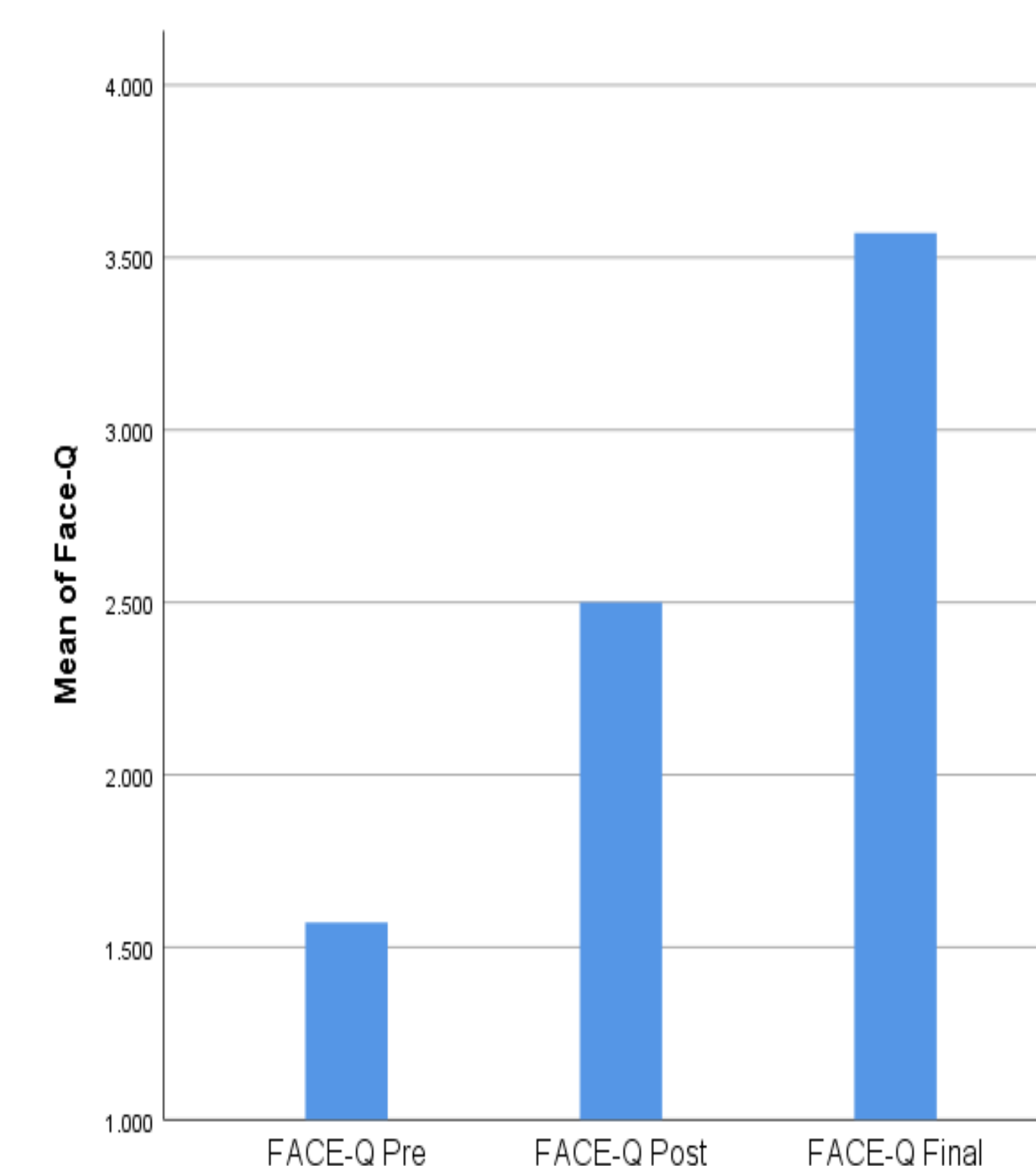


Figure 3: Bar charts for Means of FACE-Q Variable Pre, Post and Final Treatment

Conclusion

The studied modified hyaluronic acid filler showed to offer a statistically remarkable tear trough deformity and upper lip wrinkles improvement by both objective (VISIA) and subjective (FACE-Q) analysis tools, probably due to its unique H.A. spheres viscoelastic properties.

References

- Hirmand H. Anatomy and nonsurgical correction of the tear trough deformity. *Plast Reconstr Surg* 2010 125(2):699-708
- Wollina U. Perioral rejuvenation: restoration of attractiveness in aging

- females by minimally invasive procedures. *Clin Interv Aging* 2013;8:1149-1155
- Pusic A, Klassen A, Scott A, et al. Development and psychometric

- evaluation of the FACE-Q satisfaction with appearance scale: a new patient-reported outcome instrument for facial aesthetics patients. *Clin Plast Surg* 2013 40(2):249-60, 2013