

## **Evaluation of an Antiwrinkle Function of Beauty Serum**

### ABSTRACT

#### Objective

The purpose of this study was to evaluate the improvement effect of a beauty serum on 'crow's feet' of the test subjects, in comparison between interventional and non-interventional side of their face (one eye area for each) after continuous use of the lotion in the 4-week test period.

#### Methods

In this randomized, single-blinded, half-face study, a total of 15 healthy adult women at their age from 37 to 64 y.o. (Avg.52.3±8.4) categorized as wrinkle grades 1-3 in the preliminary evaluation were asked to apply the serum in one eye area of their faces daily, during the whole test period of 4 weeks. The interventional sides of the subjects were randomly assigned by an allocation manager for each case. The study was compliant with 'Guidelines for Evaluation of Cosmetic Products for New Registration of Antiwrinkle Functions'.

The primary outcomes were improvements in 1) scores of wrinkle grade based upon a visual assessment of regional pictures by dermatologists, 2) wrinkle parameters (wrinkle area ratio, average wrinkle depth, average maximum wrinkle depth and maximum wrinkle depth) obtained from visual analyses of skin replicas, and 3) scores of stratum corneum water content measured with SKICON-200EX.

And the secondary outcomes were daily skin conditions and adverse events regarding product safety, gathered by subjective evaluation using provided questionnaires and diaries.

#### Result

The study was conducted from March 12 to April 10, 2020, and all the 15 subjects completed the study. After 4 weeks of the intervention, significant improvements were observed in scores of wrinkle grade in one eye areas on the interventional sides, in comparison between before and after the test period ( $P < 0.001$ ), against the non-interventional sides that even showed significant deterioration in the scores for the same period, in contrast. ( $P < 0.001$ )

As for the evaluation of wrinkle parameters using skin replicas, significant improvements were observed in scores of average maximum wrinkle depth ( $P = 0.033$ ) and maximum wrinkle depth ( $P = 0.043$ ) on the intervention sides, in comparison with the non-interventional side after the test period

As for the evaluation of stratum corneum water content, significant improvements were observed on the intervention sides, in comparison with the non-interventional side after the test period. ( $P < 0.001$ )

### Conclusion

The finding suggests that the regular use of the beauty serum is effective to improve a finely wrinkled skin in the corner of eyes including 'crow's feet', which is generally thought to be derived from skin dryness.