CASE STUDY

Skin density

Comparing the clinical skin improvement effect of dissolving microneedle patches



Case information

Study Title: Dissolving microneedle with high molecular weight hyaluronic acid to improve skin wrinkles, dermal density and elasticity Published in: International Journal of Cosmetic Science (2020) Authors: M. Jang; S. Baek; G. Kang; H. Yang; S. Kim; H. Jung Aim: The study aimed to compare the clinical skin improvement effect of dissolving microneedle patches with different hyaluronic acid molecular weights.

Solution and method

23 healthy women with wrinkles around the eyes were recruited in the 12-week trial. The participants were divided into two groups and instructed to apply either patch A or patch B every three days to the eye wrinkles. Patch A contained high molecular weight HA, while patch B contained low molecular weight HA. Dermal density was evaluated using the Dermascan before, during, and after the treatment period.

Results and conclusions

By using the Dermascan, the study confirmed the suspicion that high molecular weight HA microneedle patches deliver better skin improvement effects than low molecular weight HA microneedle patches. Specifically, the results demonstrated a higher dermal density following the application of patch A versus patch B. Furthermore, the Dermascan enabled the study to conclude that dermal density improvement was not maintained after discontinuation of product use.

BENEFITS of the DermaScan

Skin density analysis for advanced cosmetic testing:

The Dermascan provides accurate measurements and imaging of skin density. This is optimal for evaluating skin rejuvenation products such as serums where cosmetic active compounds are applied to the skin to alleviate signs of skin aging.

Objective, reliable data:

The Dermascan offers immediate and accurate assessments of skin density, delivering objective and reliable data essential for this study.

Non-invasive measurements:

The device provides non-invasive measurements and visualization of skin layers, allowing for repeated measurements without harming or altering the skin barrier. This ensures high comfort and efficient workflows.



The DermaScan

Provides outstanding image quality based on ultra high frequency ultrasound.



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