

Clinical Evaluation of the Safety, Tolerability and Efficacy of a Post-Procedure Cream Under Normal Conditions of Use After Laser and Peeling Procedures

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Introduction

A balanced microbiome is essential for maintaining adequate skin barrier function. The microbiome participates in vital physiological processes occurring within the skin.¹ Removal of the superficial layers of the skin during resurfacing procedures disrupts the skin's barrier function. As a result, skin is left fragile and prone to product-induced irritation.² This study assessed the safety, efficacy and tolerance of a cream containing a blend of postbiotics, hydrating agents and soothing ingredients following a laser or peel procedure. 31 female participants aged 19 to 65, Fitzpatrick Skin Types I-VI, with oily skin, wrinkles, or fine lines, whose procedure was recommended by a dermatologist were enrolled in the study. This was a subject blind, 4-week post-procedure clinical study with morning and evening use of the investigational cream. Tolerance assessment and subject questionnaires showed that the cream was well-tolerated by the subjects and helped with recovery. Efficacy was perceived by the subjects as shown by the positive questionnaire responses. Redness analysis images, together with hydration and oiliness mapping provided a visual representation of improvements in subjects' skin. The analysis of microbiological collections showed a continued improvement of the microbiome with product use. The data demonstrates that the investigational cream positively impacts post-procedure care due to its tolerability and effectiveness.

1. Lee H, Kim M. Skin barrier function and the microbiome. Int J Mol Sci. 2022;23(21):13071

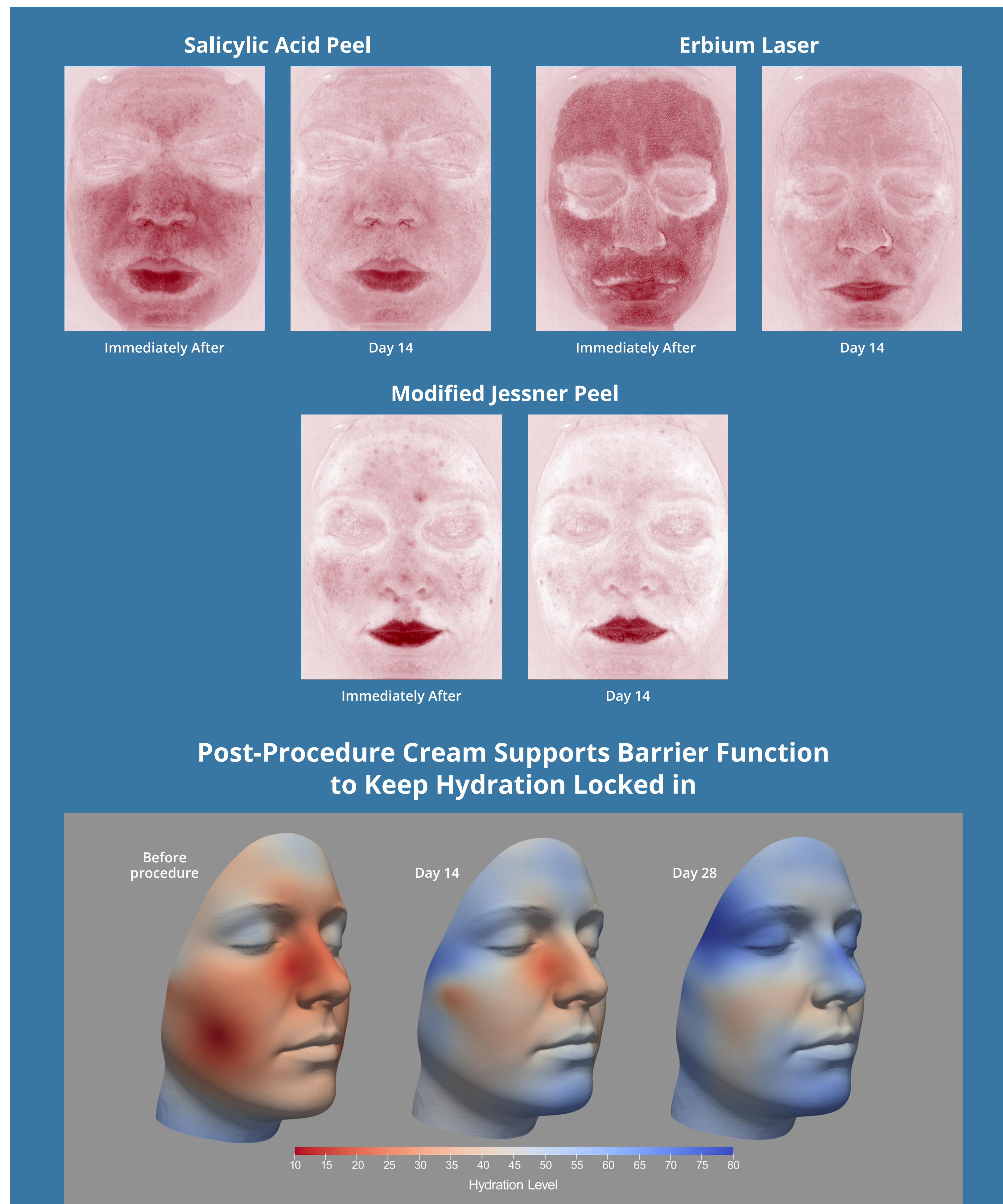
2. Fabbrocini G, et al. Fragility of epidermis: acne and post-procedure lesional skin. J Eur Acad Dermatol Venerol. 2017;31:3-18

Clinical Study Design

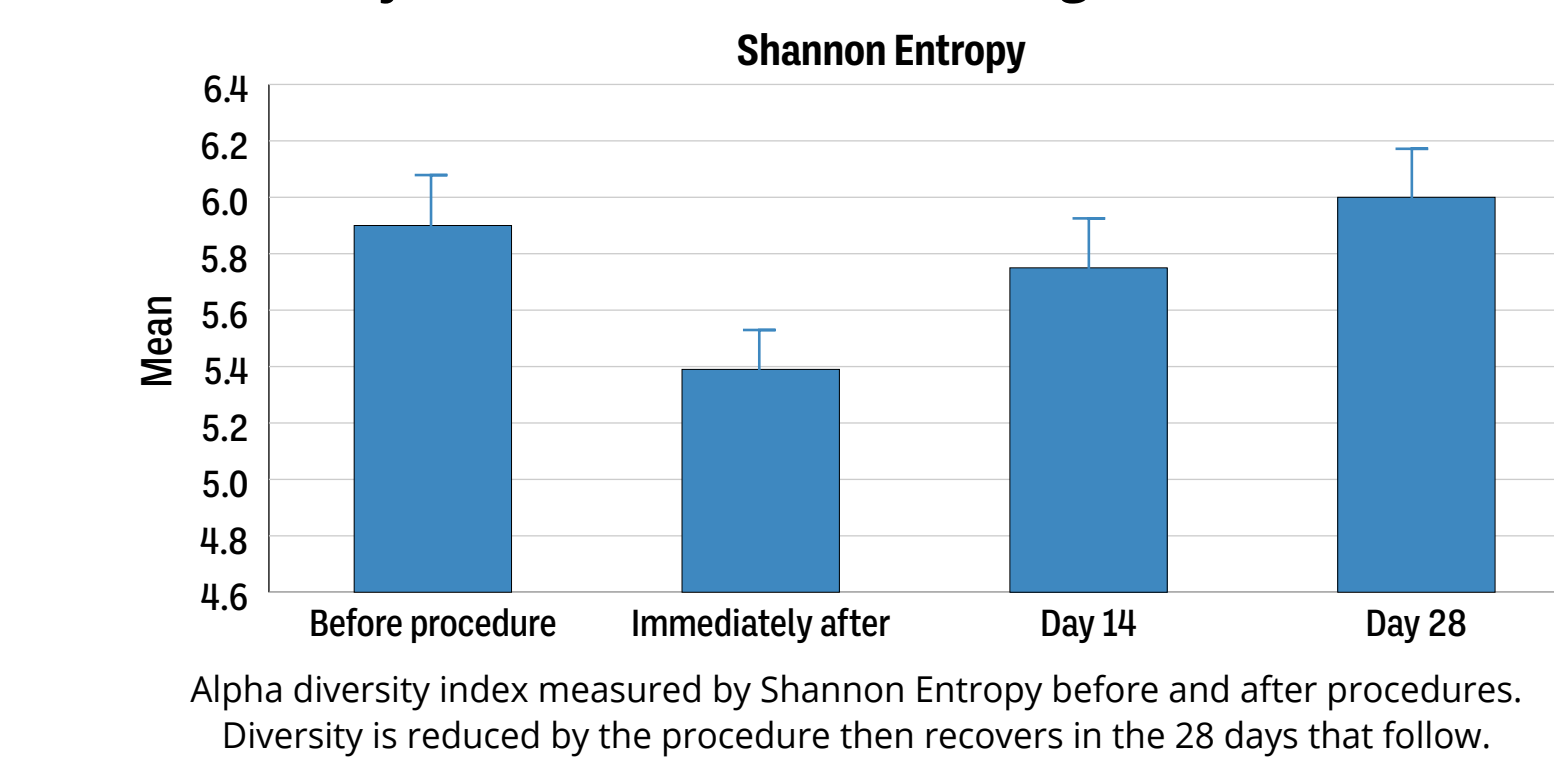
- **Subjects:** 31 female participants aged between 19 to 65 years (inclusive), Fitzpatrick Skin Type I-VI, presenting oily skin, wrinkles, or fine lines, who were assessed by a dermatologist and treated with a recommended laser or peel procedure.
- **Study Type:** Subject blind, 4-week post-procedure clinical study with morning and evening use of a cream containing a blend of postbiotics, hydrating agents and soothing ingredients.
- **Procedures:**
 - Fitzpatrick I-III: Erbium Laser (2940 nm) or modified Jessner peel
 - Fitzpatrick IV-VI: Salicylic acid peel
- **Evaluations:**
 - Tolerability assessments
 - Oiliness measurements (Sebumeter® SM 815)
 - Redness analysis of facial images with Visia-CR®
 - Hydration mapping
 - Oiliness mapping
 - Metagenomic analysis of microbiological collections
 - Self-assessments for subjective perception

Results

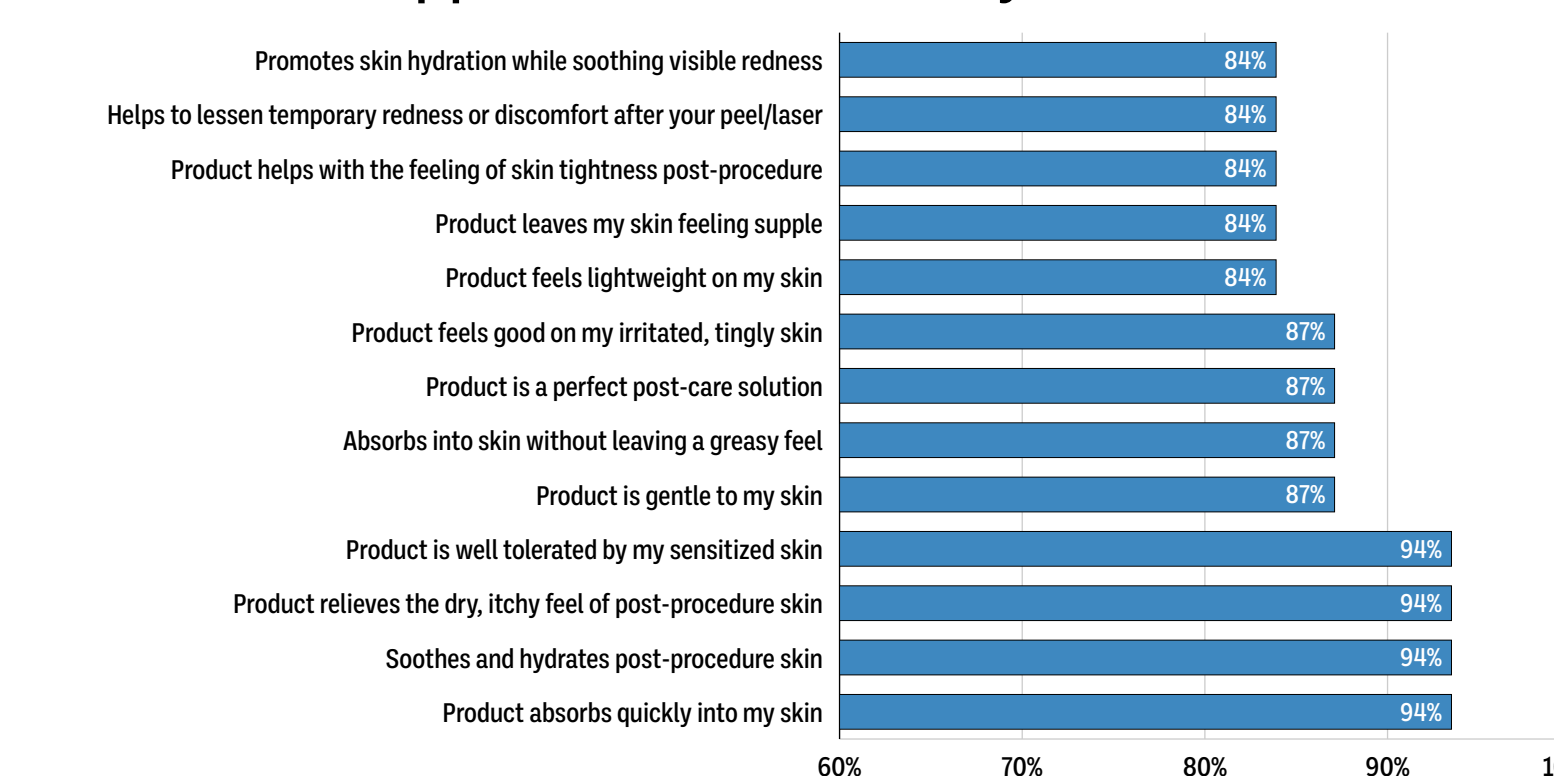
The study clinician and the study participants observed continued improvement in multiple attributes from the pre- and post-procedural state throughout the duration of the study.



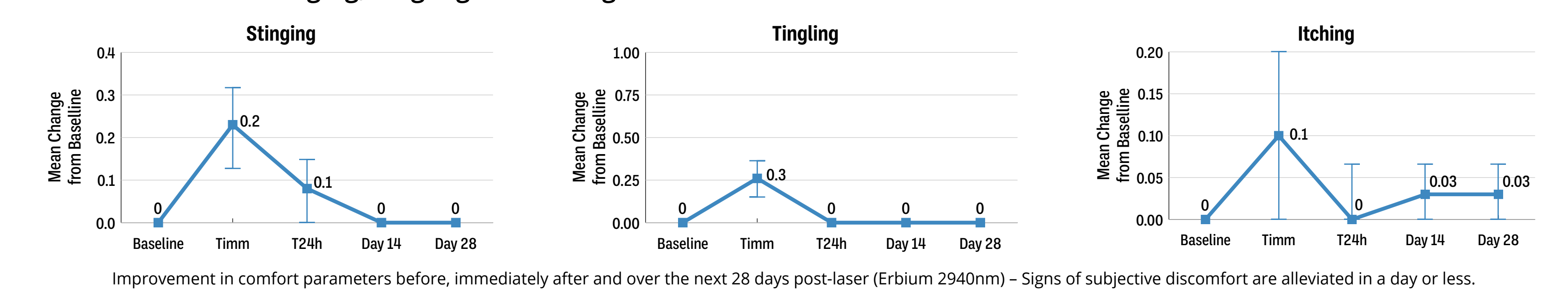
The Alpha Diversity Index Demonstrates a Recovery of the Subject's Microbiota Following Product Use



Study Participants Experienced Benefits Following the First Application Immediately After Procedure



Stinging, Tingling and Itching Return to Baseline Within 24 hours Post-Laser Procedure



Conclusions

- The cream containing a blend of postbiotics, hydrating agents and soothing ingredients is well tolerated on post-procedural skin.
- Post-procedure cream helps to reduce redness and oiliness while providing hydration.
- Majority of subjects agreed that the post-procedure cream soothes skin and helps reduce recovery time.
- The post-procedure cream helps restore microbiome diversity to compromised skin.
- The cream fosters skin recovery after Erbium laser treatment.
- In a separate study, post procedure cream showed it provides immediate skin barrier support by significantly decreasing trans-epidermal water loss.