TOLERANCE AND PERCEIVED EFFICACY OF A SUNSCREEN PRODUCT USED IN THE CONTEXT OF ENERGY-BASED HAIR REMOVAL: A SINGLE-CENTER, DERMATOLOGIST-CONTROLLED CLINICAL STUDY

Helena Polena, PharmD PhD[1]; **Eloïse Larnac**, PhD[1]; **Elodie Prestat-Marquis**[1]
[1]NAOS (Institut Esthederm), Research and Development Department, Aix-en-Provence, France
helena.polena@naos.com

BACKGROUND

To avoid any risk of burns or pigmentary issues, it is essential to avoid any exposure to UV prior to undergoing any energy-based hair removal session. Moreover, these procedures may temporarily increase skin sensitivity, making proper photoprotection essential to help maintain comfort and prevent irritation.

AIM OF THE STUDY

This study aimed to evaluate the cutaneous tolerance and perceived efficacy of a sunscreen product specifically designed for sun intolerances before and after a diode laser hair removal session.

MATERIAL & METHODS

Study Design: Single-center, dermatologist-controlled clinical study
Study panel: 21 female subjects aged 22–69 years, with Fitzpatrick phototypes II–III
Study Product: SPF50+ sunscreen product specifically suitable for sensitive skin, with high solar physical and biological protection, soothing active ingredients and high tolerance galenic.

DAY 0 — PRE-PROCEDURE — **DAY 21 DIODE LASER PROCEDURE** — POST-PROCEDURE — **DAY 35**

Sunscreen application on full face* and on the body for 70%** of the panel

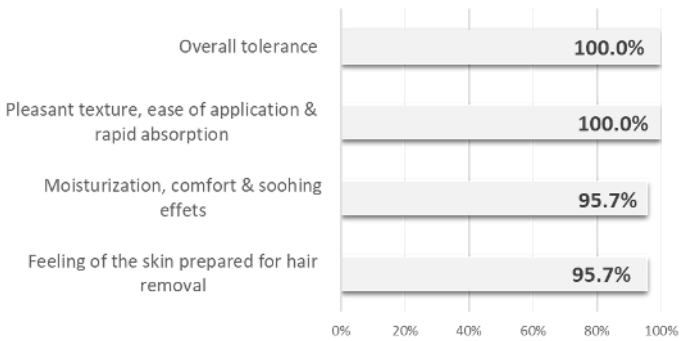
*Cutaneous Tolerance (1 application/day)
**Skin preparation (application every 2 days)

Sunscreen daily application on laser-flashed areas 30% face/70% body

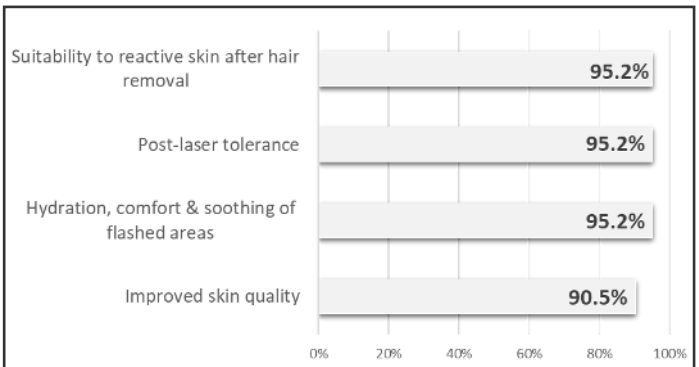
Cutaneous Tolerance (at least 1 application/day) & Perceived efficacy assessment

RESULTS

Cutaneous Tolerance: rated **very good** according to the investigator.



After 21 days of use, the sunscreen demonstrated high levels of subject satisfaction when applied on the face and body, with more than 95% of participants reporting agreement on key parameters related to skin comfort, soothing effect and preparation for the laser procedure, highlighting its suitability for pre-procedural use.



15 days after the procedure, the sunscreen maintained high levels of perceived efficacy when applied on the laser-flashed areas, with more than 95% of subjects reporting hydrated, comfortable and soothed flashed skin areas, confirming its suitability for post-procedural use on reactive skin.

Global Appreciation: High global satisfaction was reported, with 100% of subjects expressing their intention to continue using it and 95.2% willing to recommend the product.

CONCLUSION

This sunscreen product specifically designed for sun intolerances demonstrated a very good tolerance and a strong perceived efficacy before and after energy-based hair removal, supporting claims such as “clinically tested” and “dermatologically tested,” and positioning it as suitable for aesthetic procedure.

Conflict of Interest: All authors are employees of NAOS.

References: American Academy of Dermatology. *Laser hair removal and photoprotection recommendations (last update November 2021)*.