

FRACTIONAL PICO LASER FOR FACIAL PHOTODAMAGED SKIN: SAFE AND EFFECTIVE PROCEDURE

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Background: Long-term exposure to sunlight produces visible signs associated with photodamage and aging, including freckles, sun and age spots, wrinkling, solar elastosis, actinic keratosis and skin cancer. Laser toning is one of the most popular strategies to treat facial photopigmentation and aging. Several laser modalities have been used for this indication, including CO₂, Er:YAG, fractional non-ablative, QS and new picosecond lasers.

Objective: The aim of the study was to confirm the efficiency and safety of the fractional pico laser in photodamaged skin.

Materials and Methods: This prospective multicenter study investigated a random cohort of patients (N=22) with a wide range of photoaged skin treated with picosecond technology using in the same session 1064 nm and 532 nm. All participants received three laser treatments (at 4-week intervals) with a protocol of 2 passes in standard emission mode of Nd:YAG laser with a fluence of 0.8 J/cm² and 532 nm laser with a fluence range of 0.15-0.2 J/cm², plus 1 pass of fractional Nd:YAG laser with a fluence of 0.3 J/cm². Subjects were evaluated at 4 and 12 weeks after a series of 3 treatments delivered. Efficacy measurements included clinical evaluation (VAS), self-evaluation, digital morphometric pre and post comparison. Adverse events were assessed and pain was scored using a visual analog scale (VAS).



Results: After 12 weeks, the treatment gave significant improvement compared with baseline in investigator's evaluation of fine lines and overall photoaging and hyperpigmentation in self-evaluation of skin condition.

Conclusions: The non-ablative fractional Pico 1064-532 nm Nd:YAG laser is safe and effective in improving signs of mild-to-moderate photodamaged skin irregularities with no downtime, minimal pain, and without any adverse effects. On a larger sample size and histological analysis may be necessary for further studies.



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