ABSTRACT BOOK ABSTRACTS



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LASERS

COMPARISON OF FRACTIONAL 1,064-NM ND:YAG PICOSECOND LASER AND FRACTIONAL 1,550-NM ERBIUM FIBER LASER IN FACIAL ACNE SCAR TREATMENT – A SPLIT-FACE, SINGLE-BLINDED, RANDOMIZED CONTROLLED TRIAL

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Background: Fractional non-ablative lasers are becoming more popular in the treatment acne scarring due to their abilities to stimulate dermal collagen synthesis and remodeling with minimal downtime. Newly developed picosecond lasers deliver high energy to focused areas resulting in scar improvement with fewer complications.

Objective: To compare the efficacy and safety in the treatment of acne scarring between fractional 1,064-nm Nd:YAG picosecond laser and fractional 1,550-nm erbium fiber laser.

Materials and Methods: Thirty patients with cosmetically similar acne scars on both sides of the faces were enrolled and treated 4 times at 4-week intervals. Each side of the face was treated with either fractional 1,064-nm Nd:YAG picosecond laser or fractional 1,550-nm erbium fiber laser. Efficacy was evaluated using digital photography taken at baseline and 5 months by a blinded dermatologist using the ECCA grading scale (échelle d'évaluation clinique des cicatrices d'acné). Patients' overall satisfaction and self-rated improvement scores were recorded at baseline and 5 months. Adverse effects were recorded at every visit.

Results: Twenty-seven patients completed the study. Both devices demonstrated significant median ECCA score improvement from baseline (P < 0.001). However, there was no significant difference between the two in terms of median ECCA score improvement, patients' perception of scar improvement and overall satisfaction. Considering the adverse effects, more pinpoint bleeding was significantly observed with the picosecond laser (P = 0.002); whereas more pain was noted with the erbium laser (P < 0.001).











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Conclusions: Both fractional 1,064-nm Nd:YAG picosecond laser and fractional 1,550-nm erbium fiber laser are safe and effective in the treatment of acne scarring. Based on cost-effectiveness, fractional 1,550-nm erbium fiber laser is a more favorable choice compared to the alternative fractional 1,064-nm Nd:YAG picosecond laser.



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