



LASERS

A PRELIMINARY STUDY OF FRACTIONAL CO₂ LASER ADDED TO TOPICAL TACROLIMUS COMBINED WITH 308 NM EXCIMER LAMP FOR REFRACTORY VITILIGO

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Introduction: Vitiligo is the most common disorder causing hypopigmentation of the skin and mucous membranes. Since many patients with vitiligo remain resistant to conventional treatment, combination treatment strategies have become a focus of interest. Recently, fractional CO₂ laser has been proposed to be effective and well tolerated in patients with refractory vitiligo.

Objective: The present study was based on the widespread use of topically applied tacrolimus ointment plus 308nm excimer lamp for vitiligo, and tested the additional combination with fractional CO₂ laser.

Material and Methods: In this preliminary, prospective study, 21 patients with multiple, localized, refractory, non-segmental vitiligo lesions were randomized to receive either tacrolimus ointment plus 308 nm excimer lamp (control), with or without the addition of fractional CO₂ laser. Three sessions of fractional CO₂ laser were performed at 1-month intervals in treatment group. During the pre-treatment visit and at 6 months after enrollment, photographs were taken, and were assessed by two blinded dermatologists.

Results: There was no statistically significant improvement in the repigmentation on the laser side compared to the control side. Treatment was generally well-tolerated; only localized adverse effects were noted.

Conclusions: The triple combination therapy was not superior to tacrolimus ointment plus 308nm excimer lamp. Treatment failure may reflect insufficient penetration of tacrolimus ointment through the holes created by fractional CO₂ laser on the skin.

