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## Treatment of varicella skin scars with sequential punch elevation, autologous fat injection and fractional CO2 laser

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Varicella is a common viral infection that occasionally results in scar. Despite a number of measurements taken to combat this infection, they have all been either impractical or limited. The current study presents a 28-year-old woman diagnosed with varicella 10 years ago which caused her to have several depressed skin scars over the face. She was subjected to sequential treatment of punch elevation, fractional CO2 laser therapy, and autologous fat injection in one session. Over two years of postoperative follow-up, remarkable aesthetic improvements were observed in her face. This method had some advantages including high speed, convenience, application of conventional medical devices, and the minimal manipulation. The only limitation of our method was mild-to-moderate improvement of the previous hyperpigmentation of the scar.

\*Source : Repigmentation of Hypopigmented Scars Using Combination of Fractionated Carbon Dioxide Laser with Topical Latanoprost Vs. Fractionated Carbon Dioxide Laser Alone (nih.gov)

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## Repigmentation of Hypopigmented Scars Using Combination of Fractionated Carbon Dioxide Laser with Topical Latanoprost Vs. Fractionated Carbon Dioxide Laser Alone

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### Background:

Fractionated carbon dioxide (CO<sub>2</sub>) can treat hypopigmented scars. Latanoprost is a prostaglandin analog used to treat glaucoma. It can cause adverse effects, such as periocular hyperpigmentation. The aim of this study was to assess the efficacy and safety of latanoprost plus CO<sub>2</sub> laser on the repigmentation of hypopigmented scars.

### Patients and Methods:

28 patients with hypopigmented scars were divided randomly into two groups. The patients in group A were treated in six sessions (1-month intervals) with 10600-nm fractional CO<sub>2</sub> laser plus latanoprost 0.005% and those of group B fractional CO<sub>2</sub> laser plus placebo (distilled water). Digital photographs were taken at baseline and 3 months after the last treatment session. The blinded dermatologist compared the photographs and evaluated the efficacy of treatment in the hypopigmented scars using a 4-scale point (grade 1-4). Patient satisfaction was scored from 0 to 10 on a visual analog scale.

### Results:

Follow-up results 12 weeks after the last treatment session demonstrated that 11 of the 14 patients in group A had more than 50% improvement in hypopigmentation. The difference in improvement of the two groups was statistically significant ( $P = 0.027$ ). The mean of the VAS scores of patients in group A was  $6.50 \pm 1.45$  and in group B  $4.57 \pm 1.6$ . The difference in mean satisfaction of the two groups was statistically significant ( $P = 0.003$ ). Side effects were mild and resolved within 1 to 5 days.

### Conclusion:

The fractional CO<sub>2</sub> laser resurfacing plus topical latanoprost can be used as a safe and efficacious method to treat hypopigmented scars.

Besides, as we already experienced with Non-ablative Laser, we may expect bigger dermal remodeling and collagen production few months after TRI-BEAM treatment.

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