



LASERS

IMPROVEMENT OF ACNE SCAR USING TOPICAL TRIPLE GROWTH FACTOR SERUM AFTER FRACTIONAL CARBON DIOXIDE LASER TREATMENT: A PILOT STUDY

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Introduction: Acne scarring is associated with considerable psychological distress and often worsened by photodamage. Fractional photothermolysis using carbondioxide laser (CO₂ laser) has been designed to minimize the resurfacing complications. Combination treatment of topical growth factor after CO₂ laser can accelerate synergistic effects of wound healing.

Objective: To evaluate the clinical effect, quantify the skin analysis changes in response to combination treatment of triple growth factor after CO₂ Laser.

Material and Methods: A pilot study was performed on 6 men patients (average age 27.5 years) with Goodman grade III-IV atrophic acne scars. Subjects applied triple growth factor serum to the full face after CO₂ laser. Three treatment laser sessions at 1 month intervals. Scar improvement was investigated using clinical photography, skin analysis, and patient self-assessment.

Results: Compared to the baseline, 5 of 6 patients revealed clinical improvement of atrophic scars with mean of Goodman grade was reduced from 3.5 to 2.5. All Of subjects are decreasing in the mean of wrinkle reduce from 12.5 ± 1.7 to 8.5 ± 3.8 , mean sum of sebum from 106.1 ± 91.0 to 70.5 ± 80.9 , mean of ultraviolet spot from 11.3 ± 8.5 to 5.3 ± 4.5 . On patient satisfaction, 83.3 % reported a marked improvement/satisfied in their scars. The mean time of erythema and burning sensation after the laser session was 15.3 hours.

Conclusion: It provides further evidence of the potential benefits that the use of growth factor offers as an adjuvant to CO₂ laser in the treatment of atrophic acne scar and photodamage. Combination treatment to achieve optimal results of the degree improvement acne scars with minimal downtime. Application of triple growth factor could reduce transient adverse effects after CO₂ laser.

