



LASERS

EFFICIENCY OF COMBINED ATROPHIC ACNE SCARS TREATMENT WITH FRACTIONAL CO₂ LASER AND RADIOFREQUENCY

Y. Kolas⁽¹⁾

Belarusian State Medical University, Dept. Of Skin And Venereal Diseases, Minsk, Belarus⁽¹⁾

Introduction: Atrophic scars are one of the most frequent consequences of severe inflammatory acne. They may have a significant negative impact on patient's quality of life. Nowadays numerous methods are used for acne scar treatment. Fractional CO₂ laser plays a key role among them and provides partial skin ablation and activation of natural collagen production. For the last decade radiofrequency devices are also applied to stimulate dermal remodeling.

Objective: The objective of this study was to evaluate the efficiency and safety of simultaneous using of CO₂ laser and bipolar radiofrequency integrated into one device in treatment of atrophic acne scars.

Materials and Methods: 27 patients with Fitzpatrick phototype II-III aged 20-32 years (24 (22-27) years) with rolling or boxcar scars in facial area and without acne lesions were included in the study. All of them received 2-3 treatments with simultaneous combining of fractional CO₂ laser and bipolar radiofrequency in 1 month interval. To determine efficiency of treatment Qualitative scarring grading system was calculated before treatment and in 6 months after the final procedure. The results were statistically analyzed using Wilcoxon matched pairs test.

Results: In 6 months after last laser session global improvement in skin texture was observed. We defined significant decrease in depth of atrophic scars, homogenization of skin color, reducing of dilated pores. The average Qualitative scarring grading system score reduce from 15,7 (3,8) at the baseline to 8,4 (3,2) at the endpoint ($p=0,00006$). The average total recovery time after procedure was 5 (4-6) days. No side-effects like post-inflammatory hyperpigmentation, scarring, infection were revealed during observation period.

Conclusions: Simultaneous using of CO₂ laser and bipolar radiofrequency is effective and safe method of treatment. It provides significant improvement of atrophic acne scars with reduced downtime and risks of side-effects.

