

The Effectiveness of Early Combined Fractional CO₂ and Pulsed Dye LASER Treatment after Scar Revision

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INTRODUCTION: Scars are one of the important complications of the wound healing process that cause physical, psychological and cosmetic effect on the patients. Scar revision and laser treatment have been used over the past century for the improvement of many different types of scars. The purpose of this study is to evaluate the effectiveness of early combined carbon dioxide ablative fractional laser (AFL) and the pulsed dye laser (PDL) after scar revision.

MATERIALS AND METHODS: 14 patients underwent scar revision were enrolled for this study. All patients were treated with combined a 10,600 nm AFL and 595 nm PDL. The laser treatments were performed 2 weeks after scar revision surgery, which is the early remodeling phase, at 4 weeks intervals. Four treatments were performed. Vancouver Scar Scale (VSS) scores were evaluated before treatment and 5 months after final laser treatment.

RESULTS: Each VSS scores presented statistically significant improvements except height (Fig. 1). There were no adverse complications such as wound disruption, hyperpigmentation and hypopigmentation during the follow up periods.

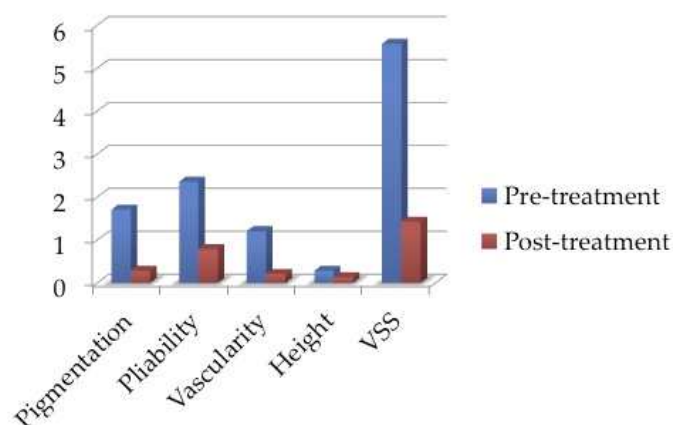


Fig. 1. Each VSS scores presented statistically significant improvement except height.

CONCLUSION: This study shows that early combined ablative fractional CO₂ and pulse dye laser treatments after scar revision are an effective and safe method to minimize scar formation.