ABSTRACT BOOK ABSTRACTS



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DERMATOLOGICAL SURGERY

EFFICACY OF COMBING FRACTIONAL CARBON DIOXIDE LASER AND SILICONE GEL IN TREATMENT OF HYPERTROPHIC SCARS AND KELOIDS: A SPLIT-LESION, DOUBLE-BLINDED, RANDOMIZED, CONTROLLED TRIALS

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Introduction: Despite the most commonly applied treatment for hypertrophic scars (HS) and keloids, the irreversible side effect of intralesional steroid injection is unavoidable. Currently, the combination of fractional carbon dioxide laser (FCO2) and liquid silicone gel (LSG) is promisingly safe and efficacious for scar and keloid treatment.

Objective: To evaluate the treatment efficacy of combining FCO2 with a film-forming LSG compared to only LSG or FCO2 alone for hypertrophic scars and keloids.

Materials and Methods: 24 consecutive scars (8 HS and 16 keloids) from 15 subjects were randomly allocated into 2 groups. Both groups received FCO2 and LSG treatment on one half and only LSG or FCO2 on the other half for 3 sessions at 4 weeks intervals. LSG was applied twice daily for 12 weeks. The assessment of scars was performed using Vancouver scar scale (VSS), Patient and observer scar assessment scale (POSAS), standardize photography, and biometric measurements.

Results: The combination of FCO2 and LSG demonstrated an efficient improvement in HS and keloid treatment, with a statistically significant decrease in VSS and both parts of POSAS, compared to only FCO2 or LSG alone. There was no statistically significant difference between all treatments, except for the subgroup analysis of keloids. Biometric measurements showed no statistically significant change in melanin index of all treatments, while the rising of hemoglobin index was observed in the combining treatment and FCO2 alone. No severe or irreversible complications were observed throughout this study.

Conclusions: The combination of FCO2 and LSG yielded a significant improvement for treatment of hypertropic scars and keloids compared to the monotherapy of LSG and FCO2 alone. This treatment option could be a novel and effective modality which is safe from the











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adverse side effects of steroids. Nonetheless, further investigation would be recommended to elucidate and affirm its superiority.



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