

Current Trends and Future Considerations in Laser Scar Treatment

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Conclusion: Scar management needs to be personalized depending on previous wound or scar maturation or upon the distribution, size, thickness, and consistency of the lesions and associated inflammation. Multimodal laser approaches are creating a new paradigm in the management of scar rehabilitation.

SUMMARY

Introduction: The goal of scar therapy is the restoration of the patient to their pre-injury state. The aim of this lecture is to review information about acne scarring, surgical and post-traumatic scars, as well as potential treatments by laser. The presentation will first concentrate on the introduction and classification of different types of scars, especially acne scarring, and then go on to treatment modalities specifically by laser. The author will also focus on post-treatment recovery time, side effects and methods to prevent and treat those side effects.

Method: While highly effective in improving scar appearance, treatment with ablative lasers has been associated with extended recovery periods, prolonged erythema, and other untoward side effects. Clinical improvement of scarring after several sessions was higher with increasing dermal density of fractional laser treatment. The use of lasers prophylactically against scarring in the early postoperative period as a preventive concept is relatively new. We introduced lasers during the early treatment of scars. Recently, the use of near-infrared, low-energy Q-switched or short-pulse laser therapy may be useful in wound healing, because the 1064 nm laser wavelength modulates numerous cellular functions, which is referred to as photobiomodulation.

Objective: A combination of ablative lasers, non-ablative lasers, laser-assisted delivery of drugs, injected antimetabolites, biology products and surgery is needed for minimally invasive correction of scars. Fractional lasers normalize both the clinical and histological appearance of scars. Due to its anti-inflammatory and analgesic effect, reduction of edema and collagen concentration, a combined protocol was used for the treatment of different types of scars. As a result, laser therapy is emerging as an essential treatment element.

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