



LASERS

EVALUATION OF THE SAFETY AND EFFICACY OF NOVEL RF MICRO-NEEDLING TIP FOR SKIN TEXTURE AND WRINKLES IMPROVEMENT

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Introduction: The need for aesthetic facial enhancement procedures with minimal down time and low risk has led to the development of methods and devices employing minimally invasive bipolar micro-needle RF electrodes, which gained success for treatment of wrinkles and skin laxity.

Objective: In this study we investigated for the first time the safety and efficacy of a novel Radiofrequency (RF) microneedle tip consist of an array of 100 microneedles.

Materials and Methods: Single center, prospective, open label study. Twelve participants (mean age, 45.75±5.23; Fitzpatrick skin type II-IV) with Fitzpatrick wrinkle classification score of 3-6 were treated with micro-needle RF technology. The participants underwent 3 treatments at 3-week intervals and additional follow up visits at 1 and 3 months following the last treatment. Efficacy of treatment was evaluated using the Fitzpatrick Elastosis and Wrinkles scale (FEWS) and the Global Aesthetic Improvement (GAI) Scale assessed by investigator as compared to baseline. Treatment safety and tolerance were also evaluated using the Visual Analogue Scale (VAS).

Results: Three months after the last treatment, significant improvement in facial wrinkle and texture was noted. FEWS scores decreased significantly from 4.833 ± 0.687 to 2.666 ± 1.178 (p<0.0001). According to the GAI scale, all patients (12/12) had an improvement in skin texture; 25% (3/12) of participants were very much improved, 17% (2/12) were much improved and 58% (7/12) were improved. Immediate response included mild-moderate erythema and only trace-mild edema (in 4/12 patients) in the treatment area. Pain during the treatment was minimal with a mean VAS pain score of 3.26/10. No other adverse events were reported. No post treatment downtime was recorded.

Conclusion: The novel RF micro-needling tip tested in this study for the first time was found to be an effective, tolerable and safe method for the treatment of wrinkle and skin texture.

