



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

SKIN REMODELING AND ACNE SCARS IMPROVEMENT USING COMBINATION OF MICRONEEDLING WITH RADIOFREQUENCY AND TRANSDERMAL DELIVERY

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Background: Optimal skin remodeling requires thermal effect on both epidermis and dermis. An optimal solution will combine three types of effects - minimal superficial coagulation on the surface for textural improvement, controlled dermal coagulation for tissue renewal and overall volumetric heating for collagen stimulation.

Most existing fractional laser devices are either too aggressive and are associated with high level of patient discomfort, downtime and high adverse effect rate, or lack the ability to generate full volumetric heating for collagen remodeling. In contrary, RF energy spreads evenly in the tissue creating wider coagulation and stimulation zones.

Objective: The aim of this study is to assess the efficacy and safety of an innovative Microneedling RF system in combination with transdermal delivery procedure for improving acne scars and wrinkles.

Patients & Methods: 10 patients completed a course of 3 sessions using microneedling RF applicator. Patients were photographed before treatment, and at follow-up visits. The parameters that were assessed are improvement of acne scars, overall improvement of skin texture and wrinkles. Side effects were monitored.

Each treatment included two steps: RF Microneedling procedure: RF applicator uses an array of 25 gold plated, non-insulated, tapered microneedles that penetrate up to 5.0mm into the skin delivering RF energy to create controlled coagulation zones through the dermis (12-16W). It offers enhanced volumetric heating mode immediately followed by transdermal delivery of active products such as vitamin C, A and HA.

Results: 80% of patients had significant improvement of acne scars and skin's texture. Side effects were mild and included: edema and erythema.

Conclusions: The combination of this unique RF microneedling technology and transdermal delivery is an effective and safe treatment modality for acne scars and skin texture.

