



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

## **RADIO-PEEL - SYNERGISM BETWEEN MICRONEEDLING FRACTIONAL RADIO FREQUENCY (RF) AND 20% TRICHLORACETIC ACID (TCA) CHEMICAL PEEL**

*Ofir Artzi<sup>(1)</sup> - Ines Verner<sup>(2)</sup> - Tal Nachlieli<sup>(2)</sup> - Hadas Shoshani<sup>(3)</sup> - Hadas Prague Nave<sup>(2)</sup>*

*Tel Aviv Medical Center, Dermatology, Tel Aviv, Israel<sup>(1)</sup> - Tel Aviv Medical Center,  
Dermatology, Tel Aviv, Israel<sup>(2)</sup> - Tel Aviv Medical Center, Dermatology, Tel Aviv, Israel<sup>(3)</sup>*

Microneedling fractional radiofrequency (FRF) and chemical peels are widely used for skin rejuvenation. we aimed at evaluating the efficacy and safety of FRF and trichloroacetic acid 20% (TCA20%) peel in different combinations for determining the optimal treatment protocol.

In this prospective clinical comparison of four protocols [FRF alone, TCA20% alone, TCA20% before FRF (TCA&#9674;FRF) and TCA20% following FRF (FRF&#9674;TCA)], the patients underwent  $3.8 \pm 1.2$  successive treatments of one protocol at 4- to 6-week intervals. The patients and 2 dermatologists evaluated improvement of pigmentation and dyschromia, erythema and blood vessels, laxity and wrinkling and skin imperfections using a global aesthetic improvement scale (GAIS) and a 1-5 scoring system. The patients rated their satisfaction, and reported adverse effects and reduced activity. Skin impedance and histological changes following the differnts protocols were also evaluated on 3 addiotional volunteers. Sixty-seven patients (age range 22-80) were studied. TCA&#9674;FRF caused skin impedance to decrease, yielding a more superficial and less efficient penetration of FRF energy. FRF&#9674;TCA produced more significant improvement in overall facial skin appearance (GAIS) and most evaluated skin parameters. Adverse effects and satisfaction rates were similar for all approaches. FRF&#9674;TCA had the best synergistic effect on skin rejuvenation compared to FRF or TCA20% alone and TCA&#9674;FRF.

