

EXPERIENCE WITH FIXED ARRAY NOVEL 1540 FRACTIONAL* ERBIUM LASER FOR ACNE SCARS

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Background and Objectives: The objective of this study was to evaluate the most effective settings for a fixed fractional array of 1540nm with 100 microbeams/cm² (Lux1540, Palomar, Burlington, MA).

Study Design/Materials and Methods: Over 500 treatments performed at the MD LSVI on x subjects for acne scarring were evaluated for improvement of acne scars. 3 treatments at 4 week intervals were given using the 10mm, 100 microbeam per pulse handpiece for 3 passes at 10 msec pulse duration. Fluence was 50 – 70 mJ/ microbeam with a minimum of 3 passes for each treatment site. The subjects were followed for 3 months post-treatment and self-assessed treatment results and pain.

Results: Results assessed by blinded photographic evaluation (Canfield Omnia system) showed a median of 3 (50-75% improvement). Side effects were minimal and included mild post-treatment erythema and edema resolving within 24 hours. Pain was reported as minimal (2.75 out of 10). 85% of patients rated their skin as improved.

Conclusions: A fixed array fractional 1540nm erbium is a valuable approach for improvement of scars and rhytids. A minimal fluence of 50 mJ/microbeam with 3 passes is required. A regularly spaced array minimizes pain and side effects while potentially increasing treatment efficiency.

* The Lux1540™ handpiece is pending US FDA clearance for the treatment of scars.