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TREATMENT OF HYPERTROPHIC AND KELOID SCARS WITH A RADIOFREQUENCY DEVICE

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Background and Objectives: To determine the efficacy and safety of the ThermaCool™ Radiofrequency system for treatment of hypertrophic and keloid scars.

Study Design/Materials and Methods: Ten patients with hypertrophic or keloid scars were treated with the ThermaCool™ device: 1/3 of the scar received no treatment and served as a control, 1/3 received one treatment, and 1/3 received two treatments at a 4-week interval. Scars were graded before and after treatment on the following clinical characteristics: symptoms, pigmentation, pliability, and height. Biopsies were taken from some patients and evaluated with hematoxylin and eosin staining, procollagen I and III immunohistochemistry and steady state frequency domain photomigration.

Results: The radiofrequency device demonstrated some changes in scar areas as determined by clinical and histologic evaluation. Treatment was found to be safe.

Conclusions: Radiofrequency devices for scar remodeling should be investigated further.