COMBINATION OF MEDICAL NEEDLING AND RECELL FOR REPIGMENTATION OF BURN SCARS (164)

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Introduction: Burn scars remain a serious physical and psychological problem for the affected people. Clinical studies as well as basic scientific research have shown that medical needling can significantly increase the quality of burn scars with comparatively low risk and stress for the patient with regards to skin elasticity, moisture, erythema and transepidermal water loss. However, needling has no influence on repigmentation of large hypopigmented scars.

Aim of Study: The goal is to evaluate whether both established methods - needling (improvement of scar quality) and ReCell (repigmentation) - can be combined. So far, 20 patients with mean age of 33 years (6-60 years) with deep second and third degree burn scars have been treated. The average treated tissue surface was 94 cm² (15-250 cm²) and was focused on areas like face, neck, chest and arm.

Methods: Percutaneous collagen induction or “medical needling” is performed using a roller covered with 3mm long needles. The roller is vertically, horizontally and diagonally rolled over the scar, inducing microtrauma. Then, ReCell (autologous cell suspension) is applied, according to the known protocol. The patients have been followed 12 months postoperatively. Pigmentation changes were measured objectively, as well as with patient and observer ratings. Patient satisfaction/preference was also obtained.

Results: We present the final study results. Taken together, the pigmentation ratings and objective measures indicate individual improvement in most of the study participants. The melanin increases seen 12 months after ReCell treatment in the study group as a whole are statistically significant.

Conclusion: Medical needling in combination with ReCell shows promise for repigmentation of burn cars.