Treatment of therapy-refractive ulcera cruris of various origins with autologous keratinocytes in fibrin sealant.

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Abstract:

Background: Evaluation of the effects of cultivated, subconfluent, autologous keratinocytes in fibrin sealant (BioSeed-S) on the healing of therapy-refractive chronic wounds. Patients and methods: Open observational study in 60 patients with chronic leg ulcers and impaired wound healing of various origins. After whole-skin excision and cultivation of the autologous keratinocytes, the suspended cells were applied to the preconditioned wound in fibrin sealant. Wound epithelization and wound size were recorded at defined times. Results: Fifty-two of the 60 participating patients could be evaluated. After 6 weeks, 29 ulcers (55.8%) were healed. The mean epithelization increased between the 8th and 42nd postoperative day from 23% to 62.5%. In 50.0% of the patients, global assessment of the wound showed a high degree of epithelization or healing after 42 days. In 32.6% of treated patients, improvement was observed, while no healing tendency was to be found in 17.4%. Conclusion: The present observational study indicates that the transplantation of autologous keratinocytes suspended in fibrin sealant could be of advantage in the treatment of refractive leg ulcers.