

TRANSFUSION PRACTICE

The use of autologous platelet gel to treat difficult-to-heal wounds: a pilot study

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BACKGROUND: Chronic ulcers can benefit from topical treatment with growth factors (GFs). PLT gel provides tissue regeneration-inducing GFs. The aim of this study was to verify the effectiveness of autologous PLT gel in the treatment of nonhealing skin lesions.

STUDY DESIGN AND METHODS: PLT gel was produced by treating PLTs with autologous thrombin. Two groups of patients were investigated: patients with dehiscent sternal wounds and patients with necrotic skin ulcers. Patients treated with PLT gel were retrospectively compared with patients having similar lesions but undergoing conventional treatment. The clinical endpoints of the study were the healing rate, the length of hospital stay, and/or the time required to bring about adequate tissue regeneration in order to undergo reconstructive plastic surgery.

RESULTS: In patients with treated dehiscent sternal wounds the healing rate (3.5 vs. 6.0 wks, $p = 0.0002$) and hospital stay (31.5 vs. 52.5 days, $p < 0.0001$) were significantly reduced. Patients with treated necrotic skin ulcers required a notably shorter time to have surgery (median 15.0 vs. 35.5 wks, $p < 0.0001$). Neither adverse reactions nor in-situ recurrences were observed.

CONCLUSIONS: Patients with chronic unhealing wounds showed substantial improvement when treated with PLT gel lesion dressings.