

Plastic & Reconstructive Surgery:

Post Acceptance: August 12, 2015

doi: 10.1097/PRS.0000000000001819

Original Article: PDF Only

Debridement and Autologous Lipotransfer for Chronic Ulceration of the Diabetic Foot and Lower Limb improves Wound Healing (the DEALT Method).

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Abstract

Background: The application of autologous lipotransfer (fat grafting, lipofilling) in reconstructive surgery is steadily becoming more popular as evidence of the regenerative and reparative effects of fat become evident. The authors investigated the use of autologous lipotransfer for treatment of chronic diabetic and other foot and lower limb ulcers.

Methods: 26 patients with non-healing wounds were treated with surgical debridement and autologous lipotransfer (using the DEALT Method). The mean age of the wounds before intervention was 16.7 months. Wound size after debridement averaged 5.1 +/- 2.6 cm². On average, 7.1 +/- 3.3 cc of lipoaspirate was transferred into the wound area.

Results: 22 / 25 wounds (88 percent) of wounds healed completely within a mean of 68.0 +/- 33.0 days. A reduction of wound size by 50 percent was achieved after an average of 4 weeks. In one patient with an ulcer within particularly scarred tissues on the lower limb, a repeat session of lipotransfer lead to complete wound healing after another 4 weeks.

Conclusions: The authors describe a simple and useful technique to improve wound healing in diabetic feet and chronic lower limb ulcers with a background of peripheral vascular disease, where other interventional options to achieve wound healing have failed.

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