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Title of Abstract:

Combined Treatment with Provant® and Dermagraft®: Effective Therapy for a 48-Month Old Diabetic Foot Ulcer

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Purpose:

Diabetic foot ulcers are often indolent, morbid and refractory to basic wound care. Wound healing and limb preservation often require complex treatment protocols involving multiple advanced treatment modalities. This report describes one such case, treated successfully with a combination of Provant* (pulsed radio-frequency energy therapy) and Dermagraft** (cryo-preserved human fibroblast-derived dermal substitute).

Methods:

This 58 year old morbidly obese diabetic man with a 48 month old neuropathic diabetic foot ulcer (Wagner grade 2) had three previous failed split-thickness skin grafts. He has concomitant venous stasis disease treated for 4 years with compression and Unna boots, and a prior amputation of the left great toe. He is erratically compliant with off-loading. At initiation of combination therapy, the plantar wound measured 4.2 x 3.5 x 1cm with surrounding callous and undermining. Treatment involved Provant (30 minutes twice daily) and weekly applications of Dermagraft for 3 weeks.

Results:

With 3 weeks of therapy, the wound volume decreased 70.2% (14.7cm³ initial; 4.4 cm³ end) and remained uninfected. The patient was compliant with all Provant treatment sessions. No adverse effects were noted. Combined treatment continues, and complete healing is anticipated.

Conclusions:

Combination therapy with Provant and Dermagraft produced significant healing of this recalcitrant 48-month old diabetic foot ulcer. Treatment was well tolerated. Amputation potentially has been avoided.

- PROVANT® Wound Therapy System (Regenesys Biomedical, Inc., Scottsdale AZ)
- **Dermagraft (Advanced BioHealing, Inc., La Jolla CA)