

Refractory Venous Leg Ulcers: Observational Evaluation of Innovative New Technology

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Abstract

Objectives

This observational case series reports the evaluation of a novel neuromuscular electrical stimulation device (geko™) that stimulates the common peroneal nerve at the fibula head as an adjunctive therapy in patients with non-healing VLU.

Aims

The aim was to evaluate and determine if the geko™ device was effective in this population and should be added to the medical supply formulary.

Methods

Patients were identified whose wounds had failed to heal within 24 weeks of standard therapy, in two community settings in Ontario.

Results

Eleven patients consented to the evaluation with a combined 107-year history of recalcitrant, leg ulcers. Although the pre-geko™ healing rate was unknown, all were considered non-healing. With geko™, the average weekly percentage reduction in Surface Area for ALL patients was 4.5%; for the 6 adherent to geko™ and best practices, 7.0%. By comparison, the average weekly percentage reduction for measurable wounds in the 5 non-adherent patients was 1.8%.

Conclusions

Requirements for success appear to include an arterial status adequate for healing, effective and prompt management of wound infections and adherence with the treatment schedule. The geko™ device has been added to the medical supply formulary in one centre and is pending in the other.

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