

A Neuromuscular Electrostimulation Device (NMES)...not just for routine wound care

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BACKGROUND

A non-healing wound is one that has not healed in four weeks. Rubin reports there are generally five reasons why wounds will not heal, two being arterial and venous insufficiency¹. This report will focus on a NMES device which improves both arterial and venous circulation to promote wound healing. Further, this report will discuss several different cases of treating chronic ulcers. Currently available technologies address wounds from the outside, by dressings, compression and negative pressure. A novel NMES device was evaluated by two Ontario Community Care Access Centres. This technology was a paradigm shift addressing the wound by improving blood flow², thus generating a natural healing response. Designed for DVT prophylaxis³, the premise for the use of the NMES device in wound care was an ideal supplement to routine wound care. Its performance in very complex wounds proved promising in accelerating wound healing.



REFERENCES

References:

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AIM

To review the experience of treating complex patients with a NMES device in the community. The patients had chronic ulcers and were on service for a minimum of three months without healing.

METHODOLOGY

Following a one year evaluation involving fourteen patients, some with multiple co-morbidities, outcomes were reviewed to determine if healing had progressed. Photography and measurements were taken at regular intervals. Patients received best practice wound care as determined by their care provider.

RESULTS

Prior to commencement of NMES treatment, wound healing was not observed despite several months or years of therapy. Following the addition of the geko™ device all patients adhering to the treatment plan experienced wound healing. The fastest time to wound closure was 17 days and the slowest was 13 months. In all adherent cases, patients experienced progress in their wound healing. Wound closure was slower in some patients with multiple co-morbidities.

CONCLUSIONS/IMPLICATIONS FOR PRACTICE

A natural healing process of delivering blood flow to the wound site using this novel NMES device showed promise in accelerating non-routine wound healing. In this series we observed healing in all patients without severe infection who adhered to the treatment guidelines. Care providers should consider improving blood flow using NMES when treating chronic wounds.

