SINGLE USE NEGATIVE PRESSURE WOUND THERAPY (SU-NPWT) FOR THE TREATMENT OF CHRONIC LOWER LEG WOUNDS

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Aim: The management of the chronic lower leg ulcer revolves around the TIME principals. NPWT has been used extensively in this field. Therefore, we undertook a prospective trial of an affordable low profile SU-NPWT on chronic lower extremity wounds that would usually be deemed too small or superficial for traditional NPWT.

Methods: A prospective trial of 20 patients was undertaken in which chronic wound of the lower extremity were treated with SU-NPWT, with the pad being changed twice a week and the power unit weekly. Wound depth, appearance of granulation tissue, periwound skin integrity, patient comfort as well as digital photography and planimetry were carried out at each visit. Patients with VLU were treated under 4 layer wrap, while DFUs were treated with offloading shoes.

Results: 80% were VLU, while 20% were DFU, with 10% being HIV+. The average wound duration was 14.2 months, the average size was 23.87 cm² (±17.67 cm²). Over the course of the study the amount of beefy red tissue increased from 42.5% to 58.5% (p=0.47), while the average size decreased to 17.3 cm² (±15.54 cm²) (p=0.069). 10% of wound closed entirely. Overall the wound became much more superficial, all patients tolerated the dressing well.

Conclusion: The SU-NPWT appeared to make the wounds much more superficial while allowing for improved granulation beds, meeting the TIME principals of moisture balance and epithelial edge migration.