Use of SnAP as First Line Therapy for Hard to Treat Chronic Wounds

Jason Mendivil, DPM, PGY-2; Rajnish Rammohan, DPM, PGY-1; Jodi Walters, DPM, Diplomate American Board of Podiatric Surgery; David Jolley, DPM; Jim Dancho, DPM, FACFAS; Billy Martin, DPM, CWSP; Attendings: Southern Arizona Veterans Administration Health Care System.

INTRODUCTION

Chronic foot ulcers of the lower-extremity popuate with diabetes can be hard to hard to treat due to the presence of bacteria, infection, and nutritional blood vessels. Use of the SnAP negatively pressure wound therapy is a non-restrictive, mechanically powered, Smart Negative Pressure (SnAP) Wound Care System, which utilizes a lightweight portable mechanical device to provide constant negative pressure wound therapy and promote healing of chronic wounds. It is designed to maintain suction within the wound wound, the wound remains healthy and clean, then decreasing visit times and time between visits to negative suction. The use study presented illustrates the effectiveness of SnAP Therapy in two patients treated at the Southern Arizona Veteran Affairs Healthcare System Department of Podiatric Surgery and documents their progress towards healing.

MATERIALS & METHODS

Patient #1 presented with a history of vascular insufficiency, chronic knee disease, type II diabetes and a wound that was complicated by removing infection. Patient #1 presented with a lateral aspect of his left foot (13.53 cm²), which was healed completely at ten weeks. The new left foot wound was evaluated weekly. Dressing changes were performed using negative pressure, in comparison to other biologics including acellular dermal matrix and human derived amniotic membrane allografts. This material is the result of work supported with the resources and the use of facilities at the Southern Arizona VA Health Care System. This material is the result of work supported with the resources and the use of facilities at the Southern Arizona VA Health Care System.

RESULTS

For patient #1, the left foot dorsal wound after fourteen weeks using separately, acellular dermal matrix and human derived amniotic membrane allograft with compressive dressings showed an increase in area by 3.7 cm².2. After an additional eighteen weeks of SnAP therapy, the wound completely healed. Using the SnAP therapy, the left foot plantar lateral wound (1.44 cm²) was completely healed at ten weeks. The new left foot dorsal wound (7.83 cm²) was healed at fifteen weeks. Patient #2 presented with a wound to the lateral aspect of his left foot (13.53 cm²), which was healed at twelve weeks.

CONCLUSIONS

A negative pressure wound therapy system is effective in achieving wound closure. The surface area of the left first dorsal wound of the first patient decreased faster when using negative pressure wound therapy compared to other biologics including acellular dermal matrix and human derived amniotic membrane allograft with compressive dressing alone. The SnAP negative pressure wound therapy system is easy to use and to light-weight for patient use. The SnAP negative pressure wound therapy system is a helpful tool for improving the negative pressure wound therapy protocol for chronic, difficult-to-mange wounds affecting the lower extremities.

REFERENCES


ACKNOWLEDGEMENTS

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RESULTS

Patient #1: Patient #1 presented with a wound to the lateral aspect of his left foot (13.53 cm²), which was healed at twelve weeks after treatment with Smart Negative Pressure Wound Care Therapy.