CASE STUDY

Pain Relief and Healing Using Polymeric Membrane Dressings* Under Compression for Venous Hypertension Ulcers

Maritania Hubbard MSN, APNC, Comprehensive Wound Care Center, Jersey Shore University Medical Center, 1943 State Route 33, Neptune, NJ 07754-0997

PROBLEM
Venous hypertension ulcers greatly decrease the productivity of those who suffer from them. They are often painful, especially during dressing changes, which may be as often as two-to-three times per day. Treatments that decrease overall pain as well as pain during dressing changes can greatly enhance the quality of life for the sufferers of these ulcers. Less frequent dressing changes and, ultimately, wound closure, can result in significant savings of both financial and emotional resources.

This study explores the progression of three patients with painful chronic venous ulcers whose treatment was changed to include polymeric membrane dressings. When the study began, two of the patients had a single painful ulcer and the third patient had three ulcers.

RATIONALE
Polymeric membrane dressings have a demonstrated ability to reduce wound pain while donating or absorbing moisture as needed. Polymeric membrane dressings also contain ingredients which draw and concentrate the body’s natural healing substances into wound bed, promoting rapid healing. The dressings’ built-in gentle cleanser facilitates autolytic debridement directly by loosening the bonds between the slough and the wound bed. The liquefied slough is absorbed by the dressing, so usually no manual wound cleansing is needed, allowing for less disruption of the new growth at the wound bed and very quick and easy dressing changes. In fact, often patients are able to do some of their dressing changes themselves. Therefore, polymeric membrane dressings were initiated.

Standard polymeric membrane dressings help inhibit infection. Silver polymeric membrane dressings have additional anti-infective properties. Therefore, plain or silver polymeric membrane dressings were initiated.

This case study was unsponsored. Ferris Mfg. Corp. contributed to this poster presentation.

METHODOLOGY
The wound beds were thoroughly cleansed with normal saline and a silver or standard polymeric membrane dressing was applied. The dressing was covered with a compression stocking or a zinc-oxide paste compression boot.

Per product instructions, no routine wound cleansing was done on any of the patients during dressing changes, which took place two – four times per week. On some patients crusts or exudate around the wound area were removed regularly with normal saline. Since manual wound cleansing was not usually indicated, the complex decisions about disturbing new growth verses removing dead tissue were eliminated and two of the patients were routinely able to perform some of their own dressing changes.

OBJECTIVES
1. Identify a dressing which promotes appropriate wound moisture conditions and cell proliferation while inhibiting infection.
2. Consider the advantages of using polymeric membrane dressings in terms of passive continuous cleansing of the wound bed (which usually eliminates painful and time-consuming wound cleansing during dressing changes).
4. Consider the advantages of using polymeric membrane dressings in terms of pain reduction.

RESULTS
All three patients quickly became pain-free, even during dressing changes. One wound completely closed at 5 weeks, two others closed at 6 weeks, and the final two were small and superficial at that point but suffered setbacks from lack of adequate compression. Despite this and the patients’ serious co-morbidities, all of the ulcers were closed by 5 months.

CONCLUSION
After only one week of polymeric membrane dressing use, new granulation tissue was forming in all of five of the previously stalled venous hypertension wounds. All patients quickly became pain-free, even during dressing changes. Three wounds closed by 6 1/2 weeks, and the others closed by 5 months, despite setbacks from failure to wear compression and all of the patients’ serious comorbidities. The dressing changes were gentle and very time efficient – just remove the old non-adherent polymeric membrane dressing and apply a new one.

BIBLIOGRAPHY

*PolyMem® Dressings, PolyMem Silver™ Dressings, Ferris Mfg. Corp, Burr Ridge, IL 60527 USA

Patient 1: An 85-year-old diabetic woman with a 2.3 cm x 1.8 cm x 0.1 cm deep ulcer for one month. Pain 5 on 0–10 scale during 5-day treatment with moist saline dressing and long-stretch bandages. No improvement.

Patient 2: A 56-year-old female diabetic (BMI 35) department store worker frequently mixed work due to three large venous ulcers. Pain 5 at onset and 3 out of 5 during 4-month course of non-contact silver dressings.

Patient 3: An 87-year-old female with hypertension, hypothyroidism, hypoglycemia, osteoporosis, SADDH. GEp and esvaros had a painful venous ulcer treated unsuccessfully with non-adherent dressings for 2 months.

Patient 1: 11 Sept. Pain during dressing changes: 2.5 cm x 1.8 cm x 0.1 cm 50% granulation, 30% epithelialized. Initial use of polymeric membrane dressings.

Patient 2: 13 Sept: dressed granulated 2.5 cm x 2.5 cm x 0.1 cm Lateral wound 5 x 5 cm x 0.1 cm 50% granulation, 30% epithelialized. Initial use of polymeric membrane dressings.

Patient 3: 13 Sept: granulated 2.5 cm x 2.5 cm x 0.1 cm Lateral wound 5 x 5 cm x 0.1 cm 50% granulation, 30% epithelialized. Initial use of polymeric membrane dressings.

Patient 1: 18 Sept: pain during dressing changes: 3 x 4 cm x 0.1 cm 100% granulation. 3rd dressing change without dressing. Reduced pain.

Patient 2: 20 Sept: pain, eased at dressing changes; 3 x 4 cm x 0.1 cm, closed entirely. 100% granulation. Reduced pain.

Patient 3: 21 Sept: pain; reduced at dressing changes; 3 cm x 4 cm x 0.1 cm, closed entirely. 100% granulation. Reduced pain.

*PolyMem® Dressings, PolyMem Silver™ Dressings, Ferris Mfg. Corp, Burr Ridge, IL 60527 USA

Patient 1: 25 Oct: Dressed; healed wound 2.1 cm x 1.7 cm x 0.1 cm Reduced pain completely healed.


Patient 3: 25 Oct: fully healed. Lateral wound 2.1 cm x 1.7 cm x 0.1 cm Reduced pain completely healed.

*PolyMem® Dressings, PolyMem Silver™ Dressings, Ferris Mfg. Corp, Burr Ridge, IL 60527 USA

This case study was unsponsored. Ferris Mfg. Corp. contributed to this poster presentation.