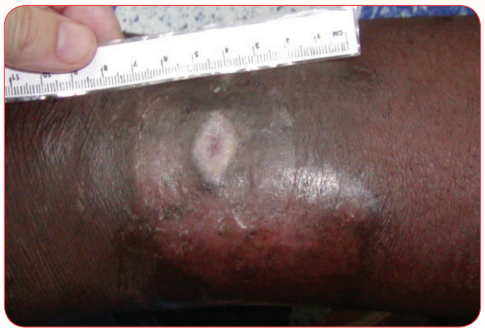
PolyMem®

CASE STUDY

Multiple Ulcers on Edematous Lower Legs Healed Using PolyMem and PolyMem Wic® Dressings without Compression Therapy

BEFORE



AFTER

CASE STUDY

Multiple Ulcers on Edematous Lower Legs Healed Using PolyMem and PolyMem Wic Dressings without Compression Therapy

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PROBLEM

A young farmer from a remote village in rural northern Ghana, West Africa, suffered for years from several lower leg ulcers, the deepest being 2.0 cm x 2.0 cm x 1.5 cm deep superior to his R ankle. He had been self-treating the wounds in his village with poultices of boiled ground-up leaves, plus oral ciprofloxacin and ibuprofen intermittently, without improvement. The primary wound had copious yellow drainage with yellow slough and eschar, but it was not foul-smelling. History and co-morbidities were vague: he had significant lower extremity swelling indicative of venous hypertension, but he denied having swelling prior to the wounds appearing; he had strong pedal pulses, no elephantiasis and adequate protein intake. At 6'4" (a foot taller than his male relatives) with a broad frame, it was likely he had acromegaly. His initial BP reading of 150/90 likely reflected his obvious terror at being inside a modern building – later readings were consistently 130/80.

RATIONALE

The patient needed to be able to come for wound care regularly, so arrangements were made for him to stay with a local family. He would not be able to farm during this time away from home, so dressings needed to promote quick healing. Diminishing the swelling was a priority. In this very warm (110° F daily) setting, moist dressings such as standard foams or hydrocolloids led to dramatic fungal and bacterial infections and compression was untenable, so a unique dressing had to be found. PolyMem dressings have demonstrated ability to inhibit infection while keeping wounds appropriately moist and wounds treated with them quickly formed granulation tissue in this setting. Therefore, after the eschar and thick slough were removed, PolyMem dressings were initiated.

METHODOLOGY

Treatment included teaching, prayer, a course of oral antibiotics and direct wound care. The adherent slough was softened with sodium-chloride impregnated gauze in the deepest areas of the wound and in the shallower areas with triple-antibiotic ointment. After one week, the wound bed was relatively clean and PolyMem dressings were initiated. These dressings were changed four times per week for a month, then three times per week. PolyMem Wic wound filler was used under the standard PolyMem dressings as needed.

VENOUS HYPERTENSION TREATMENT

Even 4" elastic bandaging was too narrow for this large man, and the heat made occlusive dressings very uncomfortable, so compression treatment was quickly abandoned. At first the patient would not elevate his feet for fear of insulting his hosts by exposing the soles of his feet towards them, but after the women in the house were educated to encourage him to place his feet up, he began doing so. The swelling reduced dramatically when he elevated his feet, but it was so culturally inappropriate for him to point his soles towards anyone that he frequently relapsed and had to be re-taught to elevate his feet.

RESULTS

Granulation tissue formed quickly and wound bed moisture remained appropriate without infection or maceration. The ulcer superior to the right ankle, which was the deepest, healed in 47 days, with the remaining ulcers on the left leg closing 5 weeks later. The patient was reminded to continue elevating his legs when possible after returning to his village.

CONCLUSION

PolyMem dressings and PolyMem Wic wound filler provided effective wound management for multiple ulcers on edematous lower legs from initiation of treatment to complete wound closure, even without the benefit of compression.

OBJECTIVES

1. Formulate a treatment plan for venous ulcers when compression therapy is not an option.
2. Identify a dressing which promotes appropriate wound moisture conditions while inhibiting infection.
3. Consider the advantages of using PolyMem dressings in terms of quick wound closure.

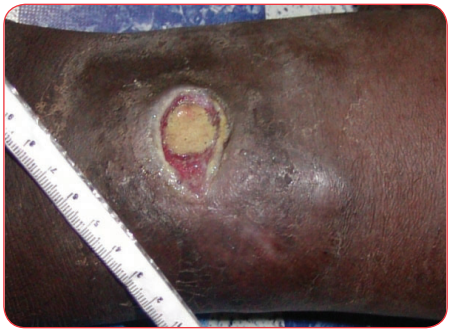
This case study was unsponsored.

OCT 26

The last day of moist debridement procedures. The eschar visible in the center of the wound was loose enough to be removed, leaving a cavity: 2.0 cm x 2.0 cm x 1.5 cm deep. PolyMem dressing use was initiated.

OCT 27

The deep ulcer was filled with three layers of PolyMem Wic wound filler (one visible in wound), then covered with a standard PolyMem dressing. Later, the edges of the filler were beveled when they were cut to fit the cavity, allowing for uneven expansion.

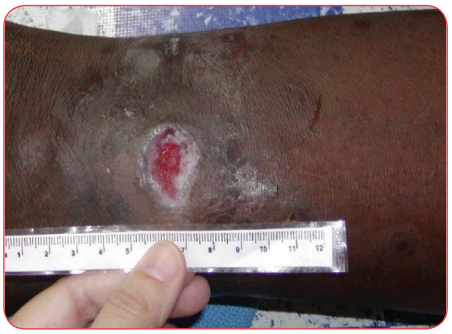


NOV 11

After two weeks of treatment, the depth of the ulcer was significantly diminished: only one layer of filler was needed (visible in wound bed). The lateral edges were also granulating.

NOV 24

Two more weeks of treatment and the filler was no longer needed: a PolyMem dressing was secured against the wound bed by taping a gauze roll over it. At this point (one month of treatment) : 0.7 cm x 1.8 cm x 0.3 cm deep.



DEC 6

The wound at this point was only 0.2 cm x 0.2 cm. On Dec 12, 47 days after initiation of PolyMem dressing treatment, this wound was completely closed. The patient's remaining wounds were all closed within five more weeks.

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21st Annual Clinical Symposium on Advances in Skin & Wound Care. Poster #23. Sept 28 - Oct 1, 2006. Orlando, FL, USA.

American Professional Wound Care Association. Poster #19. March 6 - 8, 2008. Fort Worth, TX USA.

3rd Congress of the World Union of Wound Healing Societies. Poster #PW359. June 4 - 8, 2008. Toronto, Ontario Canada.

* This version has been modified from the original; it reflects PolyMem branding.

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