

CASE SERIES

Persistence Pays for Pyoderma Patient Using Polymeric Membrane Dressings*

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PURPOSE/GOAL:

A 37-year-old woman with ulcerative colitis developed an excruciatingly painful slough-filled pyoderma gangrenosum (PG) wound on her right lower leg on 7 July, 2008. Despite systemic corticosteroid injections, oral prednisone and dapsone, the wound increased in size and then stabilized at ~10 cm x 7.5 cm. Only bismuth tribromophenate/petrolatum gauze was tolerable topically, and even with it the woman required up to eight propoxyphene/acetaminophen tablets per day to keep her pain at 5 – 8 on a 0 – 10 scale.

Switching from dapsone to cyclosporine failed to decrease the size and pain of the wound, so after three weeks of this new medication regime, the woman decided (with her physician's consent) to try extra-thick silver polymeric membrane dressings. The patient's goals were:

- Short term: (1) decrease the pain enough so that she could wear socks (winter was coming)
- Intermediate: (2) wean off of narcotic pain relievers and (3) close the wound
- Long term: (4) A more cosmetically acceptable scar than she had from a previous PG wound.

RATIONALE:

Pyoderma gangrenosum is a notoriously painful type of inflammatory wound. Manual debridement can increase the size of the wound due to increased inflammation. Polymeric membrane dressings (PMDs) can decrease pain and inflammation while gently continuously debriding wounds. The dressings promote brisk wound healing by pulling nutrients from the body into the wound bed and fostering an ideal moisture balance. Silver in PMDs prevent the dressing from becoming a reservoir for bacteria, which are pulled out of the wound bed with the absorbed slough. The patient preferred the extra-thick dressings for the increased cushioning.

METHODOLGY:

The patient was a true partner in her own care, doing all dressing changes herself with email and telephone guidance from the clinician. Communication was primarily via email, sending questions back and forth at least daily at first, tapering to weekly as the wound healed and the patient gained confidence. The patient faithfully emailed digital photographs and faxed data collection sheets documenting every dressing change. Initially, the wound was extremely sensitive to touch, so the patient sprayed water on the wound bed at dressing changes to slow down the absorption of wound fluid (see box). Her understanding of the mechanism of action of the dressings motivated her to continue the treatment despite this initial pain. Erring on the side of diligence, dressings were changed twice daily for the first 8 weeks, then daily. Manual wound cleansing was never required.

RESULTS:

The wound was markedly cleaner and measurably smaller by day four. The patient rapidly weaned herself off of her narcotic pain relievers. On day twenty the wound pain was down to 4 – 5 without any pain medications at all. In less than one month, the patient was able to wear socks. As her wound healed and the pain decreased, the patient became more physically active, which made the wound more vulnerable to injury. But, when she bumped the wound, moved heavy boxes all day, wore boots to shovel snow for several hours, etc, acetaminophen sufficiently controlled the resultant pain. The wound fully closed in 3½ months using PMDs as the only direct wound treatment. The patient was pleased with the cosmetic outcome.

CONCLUSION:

Persistent use of extra-thick silver PMDs despite initially painful dressing applications resulted in decreased inflammation, excellent pain relief, brisk slough removal, and steady healing to complete closure of this very challenging wound. All of the patient's goals were met or exceeded. A year later, the wound has not recurred.

Guidance and supplies for this case study and presentation were provided by Ferris Mfg. Corp.

*PolyMem Silver Max® and PolyMem Max® Dressings are made by Ferris Mfg. Corp., Burr Ridge, IL 60527 USA 800.POLYMEM (765.9636) • www.polymem.com



08 Nov 2008 Before the first use of polymeric membrane dressings (PMDs): thick slough and macerated periwound. (Day 0)



12 Nov 2008 Slough decreased to 70% without manual cleansing. Maceration resolved. Wound size decreased from 10 cm x 7.5 cm on Day 0 to 9.75 cm x 7.0 cm now. (Day 4)



28 Nov 2008 No pain medications today! No longer spraying water on wound bed at each dressing application. 8.75 cm x 6.25 cm with 20% slough, 40% granulation. (Day 20)



05 Dec 2008 Wore socks today! Taking acetaminophen occasionally, but no narcotic pain medications (see pain chart). Crusts on periwound only. 8.0 cm x 5.75 cm. (Day 27). Goals 1 & 2 met!



13 Jan 2009 Visible wound outline through the back of standard PMD indicates daily dressing changes are sufficient. Silver was usually used. Wound bed is clean, but harmless periwound crusts were not disturbed, avoiding potential trauma. 5.75 cm x 3.5 cm. (Day 66)



23 Feb 2009 Closed. Leg soaked to safely and painlessly remove crusts. (Day 104) Goal 3 met!



18 Mar 2009 Standard PMDs were used for 4 additional weeks after wound closure to strengthen the scar.



7 Feb 2010 One year after closure, wound remains closed. Excellent cosmetic outcome. Final goal met!

