

## CASE STUDY

Persistent Multiple Venous Dermatitis Ulcerations Closed Completely Using PolyMem Wic Silver® and PolyMem® Quadrafoam® Dressings Under Compression



BEFORE



AFTER



SIX MONTHS POST DISMISSAL



### Ferris Mfg. Corp.

16W300 83rd Street  
Burr Ridge, Illinois 60527 USA  
Phone: 1-800-POLYMEM, +1 630-887-9797  
Email: info@FerrisPolyMem.com  
Web site: www.PolyMem.com  
www.PolyMem.eu

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## Persistent Multiple Venous Dermatitis Ulcerations Closed Completely Using PolyMem Wic Silver and PolyMem Quadrafoam Dressings Under Compression

### PROBLEM

A 69-year-old female with venous hypertension dermatitis ulcerations had a history of arthritis treated with regular aspirin, COPD treated with albuterol, hypertension treated with a diuretic, varicose vein ligation and recent bilateral knee surgery. She presented with pneumonia and several small pruritic open areas on both ankles. The patient had self-treated these recurring wounds with a steroid ointment. Then they were treated by her doctor with silver sulfadiazine covered with 4 x 4's and wrapped with absorbent stretch gauze for a month. The ankle areas were warm to the touch and draining.

The WOC nurse was consulted when the patient was admitted to the hospital with severe itching, pain, and cellulitis of the right lower leg. ABI's: Left 0.86mm Hg; Right 0.80mm Hg. Hospital treatment included daily whirlpool cleansing, barrier cream to the periwound skin, and dressing all open areas with PolyMem Wic Silver cavity filler covered with absorbent stretch gauze and then two layers of compression stocking material. The patient kept the leg elevated in bed. After a ten day hospital stay, an Unna's Boot was applied by the physician and the patient was dismissed to the out-patient wound clinic, where she was seen one week later by the WOC Nurse. At this point the PolyMem Wic cavity filler and four-layer compression wrap treatment was initiated.

### RATIONALE

Heavily draining venous ulcer wounds treated with PolyMem Wic cavity filler under compression closed very quickly compared with wounds treated without this cavity filler in previous patients. Excess exudate is wicked directly away from the wound surface, through the PolyMem Wic cavity filler into the absorptive layers of the compression dressing, thus increasing wear time while preventing maceration. The PolyMem Wic cavity filler contains glycerin to soothe and hydrate the wound while drawing and concentrating healing substances from the body to the wound bed. It also contains a gentle surfactant to continually cleanse the wound bed. The delicate new structures in the wound bed are preserved because no additional cleansing is needed during dressing changes. This treatment regimen seemed to be an ideal choice for this patient.

### METHODOLOGY

Initially the wound and surrounding area were cleansed and PolyMem Wic cavity filler covered with a four-layer compression wrap was applied, to be changed every 5 – 7 days. The wound bed was not routinely cleansed with subsequent dressing changes. After 6 weeks the right lateral wounds closed and the remaining wounds were very small with scant exudate, so the wounds were covered with PolyMem Wic dressings and the patient was fitted with 20 – 30mm Hg compression stockings.

A month later, new ulcers formed, which were MRSA positive. Oral antibiotic therapy was initiated. The treatment protocol of PolyMem Wic cavity filler covered with a four-layer compression wrap was resumed, with barrier cream to periwound areas. Three weeks of this treatment resulted in almost complete wound closure again, but due to the chronicity of the wounds, this time the treatment was continued until complete closure was achieved. The patient was measured for thigh-high compression stockings 20 – 30mm Hg.

Three days later the patient was again hospitalized, this time for IV antibiotic therapy due to a MRSA infection on her hand (injured from scratching at her dressing) and her right lower leg. The treatment was modified to include PolyMem Wic Silver instead of PolyMem Wic cavity filler, covered with the four-layer compression dressing. Five days after this change, the wounds were healing and most were closed. PolyMem Wic cavity filler was again applied and covered with a four-layer compression wrap. This was continued ten more days, until all areas were closed. At that point the patient was placed on long term oral antibiotics for 3 months and dismissed from wound care. The patient applied skin conditioning cream and wore thigh-high compression stockings 20 – 30mm Hg.

EPISODE ONE



Lateral wounds of RLE: Moderate serous exudate. Superior malleolus: 0.7 cm x 0.7 cm x 0.3 cm; 50% pink 50% yellow. Distal malleolus: 1.2 cm x 1 cm x 0.5 cm; 20% pink 80% yellow.



Medial wounds of RLE: Moderate serous exudate. Superior: 3.5 cm x 2.7 cm x 0.5 cm; 50% pink 50% yellow slough. Distal: 1.3 cm x 1 cm x 0.3 cm; 50% pink 50% yellow slough.

May 22



Lateral wounds of RLE. All areas closed after 6 weeks of treatment.



July 3

Medial wounds of RLE: Small amt. serous exudate. Superior: 0.6 cm x 0.3 cm x 0.1 cm; 100% pink; fully granulated.

EPISODE TWO



A month later, new R leg MRSA+ ulcers. Lateral wounds of RLE: 1.3 cm x 1.5 cm x 0.1 cm. Medial & posterior (not shown): 1.5 cm x 1.3 cm x 0.1 cm with numerous other small open areas. Erythemic throughout. Skin is denuded around ulcers. Moderate serous drainage; moderate foul odor.

July 31



Excellent healing in three weeks. Medial wounds: 0.6 cm x 0.5 cm x <0.1 cm; 100% pink. Small amount serous exudate. All other open areas now closed.

August 21



(Lateral) All wound areas closed. Dismissed.



On oral antibiotics, PolyMem Wic filler & compression. Medial wounds: 0.2 cm x 0.2 cm x 0.1 cm; 100% pink. Small amount serous drainage, no odor, most areas closed.

August 28

POST DISMISSAL

Post-dismissal treatment: Physician placed patient on oral antibiotics three times per week for 3 months. Patient applying skin conditioning cream and wearing thigh high compression stockings 20-30mm Hg post-wounds.



Six months after her final wound care visit, the patient's skin remains intact.

March 13

### RESULTS

The protocol of PolyMem Wic cavity filler applied on the wound and covered with a four-layer compression wrap was successful in closing these venous dermatitis induced wounds in 3 - 6 weeks. But, the MRSA infection relapses greatly prolonged the patient's overall recovery time. Initially the patient rated her pain a "10" on the 0-10 scale. By the second dressing change the rating had gone down to a "5" and the patient's pain score continued to diminish as the wounds healed. Eight weeks after her final wound care visit the patient's skin remained intact and pink without rash. Pruritus was significantly diminished. Six months after her final visit, the skin was still intact!

### CONCLUSION

The patient relapsed repeatedly, but this unique treatment (PolyMem Wic and PolyMem Wic Silver cavity filler covered with a four-layer compression wrap) consistently resulted in improved healing of her wounds. Eventually the combination of using the PolyMem Wic cavity filler plus a four-layer compression wrap to complete closure and appropriate oral antibiotics resulted in more permanent closure of her wounds.

### OBJECTIVES

1. Review evidence for the use of PolyMem Wic cavity filler under a four layer compression wrap in the treatment of venous hypertension ulcers.
2. Consider the advantages of using PolyMem dressings in terms of passive continuous cleansing of the wound bed, which often eliminates painful and time-consuming wound cleansing during dressing changes.
3. Discuss the benefits of using this unique dressing protocol in terms of quick healing.

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Janis Harrison, RN, BSN, CWOCN, CFCN, Pender Community Hospital, 603 Earl Street, Pender, NE 68047