

Fast Healing of Pressure Ulcers in People with a Spinal Cord Injury (SCI) through the use of Polymeric Membrane Dressings*

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INTRODUCTION

Pressure ulcers are a common complication in spinal cord injury patients. According to the literature, 50-80 % of these individuals suffer from pressure ulcers at some time, and 85% of all pressure ulcers overall are caused by "sitting too much." It is challenging to find a dressing that does not shift or come off completely during patient transfers. Dressing pressure ulcers near the rectum is especially problematic. Healing is often slow and wound infections are prevalent. The choice of dressing in combination with prevention and patient education is crucial.

AIM

Our goal is to help our patients to heal their pressure ulcers quickly. We minimize wound trauma by teaching our patients how to deal with the problems which caused their ulcer, teaching them how to cope with a paralyzed body, and providing pressure-relieving devices.



METHODS:

We use polymeric membrane dressings to dress the wounds. They are flexible and do not have a hard edge that will peel off while transferring. When the exterior of the polymeric membrane dressing becomes contaminated with feces, the dressing's outer semi-permeable membrane protects the wound bed from contamination.

Polymeric membrane dressings provide significant wound pain relief (our patients do not feel pain so we see it in reduced spasticity) and contain components

which draw and concentrate healing substances from the body into the wound bed to promote rapid healing, while facilitating autolytic debridement directly by loosening bonds between the slough and the wound. These unique dressings add

moisture to dry wounds while absorbing excess fluid, so they are recommended for dry wounds with exposed tendons and bones as well as for heavily exuding wounds.

There is no need to rinse the wound bed at dressing change as the dressing contains a built-in wound cleanser. This leads to fast dressing changes without the risk of cooling down the wound bed. Cooling wounds at dressing changes is known to slow healing for at least 12 hours, so, perhaps the lack of cooling when using polymeric membrane dressings helps to explain the dramatic rapid healing rates our patients' experience. Despite the need for off-loading to promote wound healing, we always permit our patients to be out of bed for one hour three times a day. We do this in order to increase compliance, decrease the emotional depression that isolation and inactivity foster, and to minimize the pulmonary complications to which our spinal cord injured patients are especially vulnerable.



Removal of polymeric membrane dressing and polymeric cavity filler.

RESULTS:

Off-loading along with the use of polymeric membrane dressings has resulted in pressure ulcers closing in less than half the time they did before. We often see the improvement already after a couple of days. Pressure ulcers of grade 3 usually close completely in only 4 – 6 weeks when we use polymeric membrane dressings. When we used other modern wound dressings, healing took about

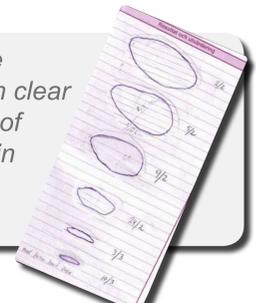
2 – 3 times longer. We also noted that wounds treated with polymeric membrane dressings have fewer infections as well. Polymeric membrane dressings tend to stay in place during transfers and fit well, even when applied near the rectum.



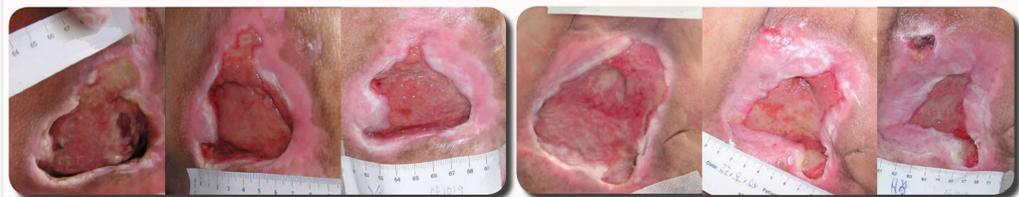
A paraplegic mentally handicapped 30 year old girl was with us for 6 weeks. Her grade 4 heel pressure ulcer of over 2 years duration had not healed with hydrofibers. We changed to polymeric membrane cavity filler together with the regular polymeric membrane dressing. We also used a special pressure relief boot.
Top photo; 10 May: 7,5 x 5,5 cm
Middle photo; 25 May: 6,0 x 5,0 cm
Bottom photo; 28 June: 4,2 x 3,5 cm



The use of polymeric membrane dressings usually result in visible healing after only a couple of days. We trace the wound outline on clear film at dressing changes to show the patients the diminishing size of their wounds. This helps us to convince them that pressure relief in bed is worth their time of relative isolation and inactivity.



A 50 year old paraplegic man with bilateral ischial pressure ulcers for three years. Previously treated with hydrofibres but the wounds were not healing. Dressing regime changed to polymeric membrane dressings, pressure relief measures as well as a bowel program to prevent contamination. (Polymeric membrane dressings applied day 1)



Left side

- Day 1: 7,2 x 6,5 x 1,5 cm (2 cm undermining)
- Day 22: 6,7 6,9 x 1,0 (1cm undermining)
- Day 44: 6,4 x 4,6 x 0,8

Right side

- Day 1: 6,5 x 9,6 x 1,0 cm (1cm undermining)
- Day 22: 5,3 x 6,7 cm
- Day 44: 3,7 x 6,7 cm

CONCLUSIONS:

Polymeric membrane dressings are convenient for us at our facility since they are easy to use, not only for pressure ulcers but for all the wounds at our facility including transplanted orthopedics. Changing to polymeric membrane dressings has resulted in dramatically

improved pressure ulcer healing rates on our patients with spinal cord injuries. The wounds presented here are just a few of the ~200 wounds from which our statistics and conclusions about polymeric membrane dressings have been drawn.

*PolyMem® Wound dressing and PolyMem Wic® Cavity dressing
Manufactured by Ferris Mfg Corp, Burr Ridge, IL 60527 USA.

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