Management of a Sacral-Coccygeal Wound Using a Unique Sacral Design Hydrocolloid

A Case Study

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Jody Scardillo, MS, RN, CETN
Donna Truland, RN, BSN, CRRN, CETN
Albany Medical Center,
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Overview

Management of skin breakdown in the sacral-coccygeal area is a frequent challenge for caregivers. Hydrocolloid dressings are a cost-effective method of providing moist wound healing, however, dressing placement is often difficult to maintain in this part of the body. As a result, the well-known advantages of hydrocolloid dressings including ease of use, cost effectiveness, minimal use of nursing time, and good patient outcomes are not realized. Often hydrocolloids are cut to shape, and held in place with waterproof tape or a film dressing, in order to prolong wear time. This necessitates an extra step for the caregiver, the use of an extra product, and increased cost.

This case study illustrates the effectiveness of using a uniquely designed, film-bordered, sacral hydrocolloid dressing. A series of photographs documents the initial severity of the wound, the progress of wound healing and the ease of caregiver use in a critically ill, frail, elderly male.

Case History

A 76-year-old man was admitted through the emergency department of a tertiary care facility with symptoms of an acute abdomen, including nausea, vomiting, diarrhea, and increasing abdominal pain. Past medical history was significant for coronary artery disease, diabetes mellitus, peripheral neuropathy, bowel ischemia, diverticulosis, and colon cancer. He underwent a cholecystectomy and appendectomy. Six days later, an exploratory laparotomy with ileocolic resection and end ileostomy were performed. A day after that, he underwent a second laparotomy.

The patient's post-operative course was complicated by prolonged respiratory failure, sepsis, and cardiac complications. During this period, he developed pressure ulcers in the sacral-coccyx area. The ET nurse was consulted after his transfer out of the critical care area approximately two months after the original surgery. The staff was concerned about the severity and short time period in which this wound developed, along with the location in the sacral-coccygeal area. The patient was debilitated, immobile, cachectic (suffering from weight loss and wasting), and in severe pain due to new onset of skin breakdown (Figure 1). The sacral wound was noted to be 5 cm by 6 cm within a reddened area measuring 8.5 cm by 5.5 cm. Half of the wound was covered with soft, brown necrotic tissue, 25% was covered with yellow slough, and the remaining area was covered with pink tissue. The necrotic center portion of the wound was of great concern initially, since this area was directly over the coccyx bone in this seriously debilitated patient.

Treatment Plan

The open wound and the surrounding area were gently cleansed with normal saline. 3M™ Tegaderm™ Hydrocolloid Dressing—Sacral Design was applied to the area. The wound was assessed every 3–5 days by the WOC nursing staff. At Day 53, 3M™ Tegaderm™ High Gelling Alginate Dressing was added under the hydrocolloid to fill in the wound area.

Results

The photographs (Figures 1–9) document the ability of the sacral designed 3M™ Tegaderm™ Hydrocolloid dressing to adhere to the skin, absorb drainage, and promote moist wound healing. The product consistently remained in place for 3–5 days, despite periods of moderate to large amounts of wound drainage. The nurse was able to apply and remove the product without the assistance of another person. The patient reported significant improvement in the pain from this wound. The patient was able to participate in physical therapy. By day 60, the wound had diminished in size significantly, and the 3M™ Tegaderm™ Hydrocolloid dressing was discontinued. Wound management was switched to a smaller size 3M™ Tegaderm™ Hydrocolloid dressing (2-3/4 in. by 3-1/2 in. oval, #90001).
The caregivers were given in-home wound care instruction in anticipation of discharge and the patient was discharged home shortly after.

Conclusion

The flexibility and the design of the hydrocolloid dressing allowed for a 3–5 day wear time in a very thin man with large bony prominences. This permitted the hydrocolloid dressing to autolytically debride the necrotic tissue over the coccyx—a wound that was of great concern due to its location over the bone. The hydrocolloid dressing assisted in maintaining the moist wound environment necessary for healing. The photographs document the healing this patient experienced.

Figure 1 Day 1 (5/21/99) The sacral-coccygeal wound measured 5 cm by 6 cm at its greatest dimensions within an 8.5 cm by 5.5 cm reddened area. Half of the wound was covered with adherent brown slough, 25% was covered with yellow slough and the remaining 25% with pink tissue.

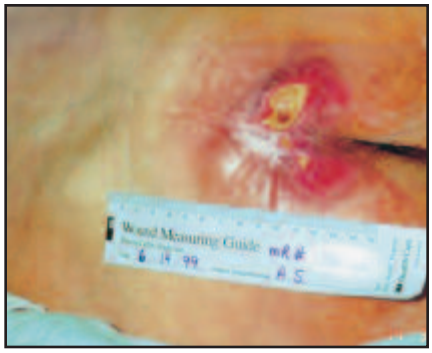

Figure 2 Day 25 (6/14/99) The wound had now healed into two distinct open areas. The area on the patient's right buttock measured 3.5 cm by 2 cm, with the yellow slough portion of the center measuring 3 cm by 1.5 cm. On the patient's left buttock, there were now two open areas. The medial wound measured 0.5 cm by 0.25 cm. The lateral wound measured 0.6 cm by 0.5 cm. Both wounds on the left buttock were covered with yellow slough.

Figure 3 Day 32 (6/21/99) The right buttock wound measured 3.2 cm by 1.5 cm. The slough area had loosened, and a portion of the slough tissue was debrided. The measurements of the left side were unchanged from Day 25 (6/14/99).

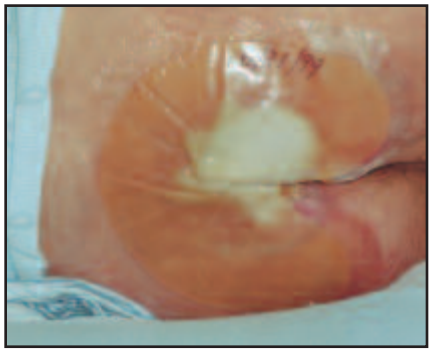

Figure 4 Day 35 (6/24/99) This photograph shows the appearance of the 3M™ Tegaderm™ Hydrocolloid Dressing—Sacral Design after a three-day wear time. At this point, the patient was transferring to the chair and walking in physical therapy. The wound was draining large amounts of serosanguinous drainage.

Figure 5 Day 35 (6/24/99) The caregiver could easily remove the 3M™ Tegaderm™ Hydrocolloid Dressing—Sacral Design independently with the patient lying on his side.

Figure 6 Day 35 (6/24/99) The right side wound measured 3 cm by 1.4 cm. The wounds on the left side remained at 0.5 cm by 0.25 cm (medial wound) and 0.6 cm by 0.5 cm (lateral wound).

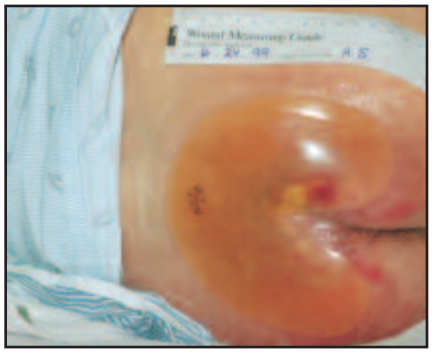

Figure 7 Day 35 (6/24/99) Wound area with a newly applied 3M™ Tegaderm™ Hydrocolloid Dressing—Sacral Design.

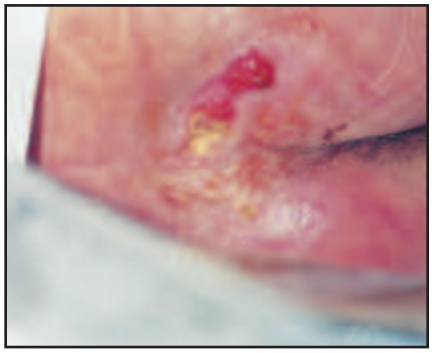

Figure 8 Day 53 (7/12/99) The right buttock wound had healed into two small wounds with new tissue in between. The lateral wound measured 1.5 cm by 1 cm. The medial wound measured 1.5 cm by 1 cm by 0.25 cm deep. This wound was debrided with a scalpel to remove loose slough tissue and promote healing. 3M™ Tegaderm™ High Gelling Alginate Dressing was packed into this wound to fill dead space, assist with debridement of this area, and promote healing.

Figure 9 Day 60 (7/19/99) The lateral wound on the right buttock measured 0.8 cm by 0.6 cm. The medial wound measured 1.8 cm by 1.2 cm. Half of the slough tissue present on Day 53 (7/12/99) had been removed and the dead space had filled in.

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3M

Medical Division
3M Health Care
3M Center, Building 275-4W-02
St. Paul, MN 55144-1000
USA
1-800-228-3957
www.3M.com/healthcare

Medical Division
3M Canada
Post Office Box 5757
London, Ontario N6A 4T1
Canada
1-800-563-2921

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