

A novel treatment protocol for the management of nonhealing surgical wounds

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Purpose

The purpose of this evaluation was to test a novel protocol in the management of nonhealing surgical wounds using a novel transforming powder dressing (TPD) to decrease the frequency of dressing changes.

Conclusions

The study indicated that the use of the TPD¹ on nonhealing surgical wounds with a silicone mesh with adhesive border allows for applications of a moist wound dressing for periods of up to 7 days without dressing change. The technique to the right allows the TPD to be applied to a nonhealing surgical wound with depth and retained in place using an adhesive border dressing:



C-Nonhealing surgical wound with depth

1-Nonhealing surgical wounds with depth can be treated by packing the wound with TPD¹. This is typically accomplished using a modified funnel.
2-Packing the TPD with a sterile probe between applications as the powder aggregates.



Step 1-Transfer of TPD into deep wound using "funnel technique"



Step 2-Packing of wound with TPD and repeated funnel applications



Step 3-protecting periwound



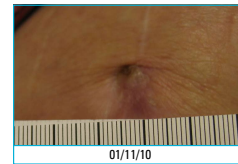
Step 4-Application of adhesive border dressing with breathable foam pad

3-The periwound is cleaned and treated with a protective skin barrier².

4-An adhesive border dressing³ is applied over the wound ensuring that the adhesive does not contact the aggregated TPD. Typical dressing changes including TPD is weekly.

Products

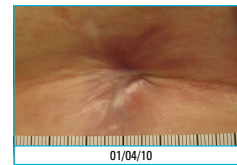
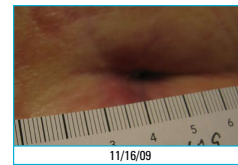
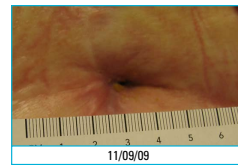
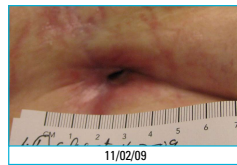
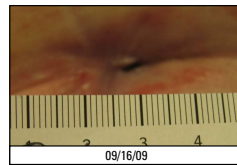
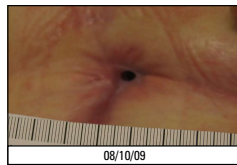
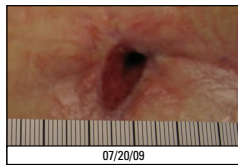
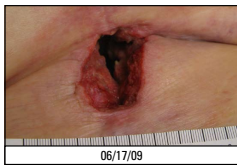
¹-Altrazeal™ Transforming Powder Dressing - ULURU, Inc.
²-Prep Protective Skin Barrier - Coloplast, Inc.
³-Mepilex™ Border - Molnlycke Healthcare



PATIENT: 80 yo female presented to wound center on 9/21/09 with nonhealing surgical wound to left knee following trauma requiring I&D of the prepatellar bursa in March 2009. The wound measured 2.0 x 1.8 x 1.2 cm with undermining at 12 to 12 o'clock, deepest to 2.7 cm. **PMH:** CHF, hypertension, hypothyroidism, osteoarthritis.

WOUND CENTER COURSE: The Patient required excisional debridement and enzymatic debridement with Santyl® for 4 weeks and then changed to Prisma™ collagen daily using NU GAUZE® to fill in the dead space (1.5 x 1.5 x 0.7 cm with u/m from 10–12 to 2.8 cm). The Patient wasn't improving so 4 weeks of OASIS® and Iodoflex™ from 11/9–11/20 improved wound to 0.8 x 0.5 x 0.5 cm with u/m to 1.0 cm. 12/7/09: First application of the TPD¹, the wound measured: 0.8 x 0.5 x 0.2 cm with u/m at 12 o'clock to 1 cm.

12/14/09: Second application of the TPD with measurements of 0.5 x 0.3 x 0.2 cm with u/m at 12 o'clock to 0.3 cm. 12/21/09: Third application of the TPD with measurements of 0.4 x 0.2 x 0.1 cm with u/m at 12 o'clock to 0.2 cm. 12/28/09: f/u visit, the TPD in place and dry, left intact: 0.5 x 0.5 x 0 cm, no depth, no u/m. 1/4/10: Forth application of the TPD the wound measured 0.2 x 0.2 x 0.1 cm, no u/m. 1/11/10: The Patient healed. At f/u visit on 3/1/10, wound remained healed with no complications.



PATIENT: 72 yo female on 3/19/09 with nonhealing surgical wound to her anterior chest wall. The Patient was s/p coronary artery bypass in 9/08 that was complicated by sternal wound infection requiring surgical debridement followed by complete reconstruction of her sternum covered with flap in 10/08. Despite treatment with KCI Wound VAC, the Patient required further surgical debridement

including infected bone on 6/11/09 and also received 6 weeks of IV daptomycin. **PMH:** CAD s/p CABG (as above), DM, type 2 on insulin. **WOUND CENTER COURSE:** Initial visit after surgery on 6/17/09, the wound measured 5.2 x 3.4 x 4.2 cm with undermining at 12 o'clock to 2.9 cm and at 3 o'clock to 3.0 cm. We resumed KCI VAC therapy. The wound improved with KCI VAC therapy which was d/c'ed on 7/20/09 due to size limitations (2.0 x 1.2 x 1.3 cm with u/m at 2 o'clock to 4.8 cm). Between 7/20/09–10/5/09, multiple wound products including Mesalt® packing strips, Hydrofera® Blue rope, Fibracol® Plus

collagen, PolyMem Silver® WIC rope, and Multidex® powder were used with minimal improvement (1.0 x 1.1 x 1.0 cm with u/m at 2 o'clock to 3.2 cm). Since the wound had stalled at that size, OASIS was used weekly x 4 from 10/5/09–10/26/09 with measurements improving slightly to 1.0 x 0.5 x 1.0 cm with u/m to 3.2 cm. First application of the TPD¹ was 11/2/09 and in 1 week wound measurement decreased to 0.3 x 0.2 x 1.0 cm with u/m to 1.5 cm. The TPD as reapplied on 11/9/09 and the Patient was healed at her next visit on 11/16/09. F/u visit on 1/04/10 revealed well healed scar.