EXPERIENCE WITH NOVEL PORCINE COLLAGEN MATRIX AND SILVER USED IN LONG-TERM DRESSINGS

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BACKGROUND

Cost of dressing supplies and nursing time, as well as factors such as patient compliance, wound off-loading, and edema control can be greatly improved with long term dressings. A novel collagen matrix with silver* was used safely and effectively with the following long-term dressings:

1) Layered compression wrap
2) Total contact cast (TCC)
3) Adhesive hydrocellular foam

METHODOLOGY

Wounds of varying etiologies warranting long-term dressings that clinically did not appear infected or critically colonized were selected. Standard wound care principles of wound bed preparation were maintained until wound closure. A novel collagen matrix dressing with silver* was applied to wounds in conjunction with one of the above listed long-term dressings depending on the nature of each given wound. Dressings were changed every 7 days.

RESULTS

No signs or symptoms of infection were detected during therapy. The novel collagen matrix facilitated growth of granulation tissue and epithelialization resulting in closure of all wounds studied.

CONCLUSION

Long term dressings have become standard of care for venostasis ulcers, can be very effective in off-loading neuropathic foot wounds, have been demonstrated to be cost effective in many wound types, and can markedly improve patient compliance. The addition of silver to a novel collagen dressing allows clinicians to safely utilize this product with established and proven long-term dressings.

* ColActive® Plus Ag - Collagen Matrix Dressing with Silver

CASE HISTORIES

Case 1: 93-year-old female with history of hypertension, coronary artery disease, atrial fibrillation, cerebrovascular disease, venostasis, and lymphedema seen in wound care center for wound on right lower extremity precipitated by minor trauma that had not responded to 4 weeks therapy. Wound appeared critically colonized and patient was treated with cadexamer iodine# and layered compression wrap for 2 weeks. A novel porcine collagen matrix with silver* was then applied to wound with layered compression wrap and changed every 7 days beginning on 7-23-07. Wound was noted to be closed by 8-23-07.

Image 1: Collagen matrix dressing with silver* and compression wraps applied 7-23-07.

Image 2: 7-26-07
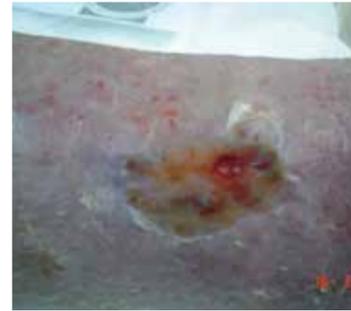
Image 3: 8-16-07

Image 4: Wound closure 8-23-07

Case 2: 51-year-old male with history of diabetes, peripheral artery disease, hypertension, congestive heart failure with right 1st submetatarsal ulceration that on referral to wound care center appeared infected. Patient was treated with intravenous (IV) antibiotics, surgical debridement, and adjunctive hyperbarics. Once foot had stabilized, foot was off-loaded by means of total contact cast (TCC) but wound failed to progress. Wound tissue was noted to be bland and pale. Novel porcine collagen matrix with silver* was used in conjunction with TCC on 6-15-07. As per our TCC protocol, dressing was changed in 3 days, then 5 days, and then weekly. Wound not only began to granulate but was noted to be closed with new epithelial growth by 7-10-07.

Image 1: 6-26-07

Image 2: 7-10-07

Case 3: 33-year-old-female with history of HCV and drug abuse underwent surgical debridement of necrotizing soft tissue infection involving proximal left upper extremity on 5-27-07. In addition to intravenous (IV) antibiotics, she received adjunctive hyperbaric oxygen therapy and NPWT. NPWT was continued until wound was filled with granulation tissue to the level of epithelium. A novel porcine collagen matrix* was then utilized in place of NPWT on 7-2-07 with a secondary dressing consisting of an adhesive foam**. Dressing was changed every 3 to 11 days dependent on patient's compliance. Mild hypergranulation was cauterized with sliver nitrate. Wound was determined to be closed on 9-6-07.

Image 1: 7-2-07

Image 2: 7-09-07

Image 3: 7-23-07

Image 4: 7-30-07

Image 5: 8-6-07

Image 6: 9-6-07