Isolation of Enteric Fistulas to Allow Adjacent Skin Graft Placement

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NOTE: Specific indications, contraindications, warnings and precautions, and safety information exist for these products and therapies. Please consult product labeling prior to use.

*WOUND CROWN®, FISTULA FUNNEL®, and ISOLATOR STRIP® (Fistula Solution Corporation, Scandia, MN. Distributed by KCI, San Antonio, TX)

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Introduction

• Wounds near fistulas and ostomies are typically not well suited for skin grafting due to the risk of effluent contamination.

• However, not grafting these wounds can delay healing and further tax patients and providers with finding creative ways to manage the wound and intestinal effluent.

• Furthermore, these wound types can many times leave the patient bound to a care facility, with further skin breakdown related to effluent leakage resulting in cellulitis and readmission to an acute care hospital.

Purpose

• In this case series, we describe the use of fistula isolation devices (FIDs*) to help manage intestinal effluent during the placement of skin grafts or artificial skin substitutes onto nearby wounds.

Methods

• Upon fistula isolation, skin grafts (n=3) or xenografts (n=1) were placed onto the nearby wounds.

• All grafts were covered with non-adherent dressings and bolstered using negative pressure wound therapy (NPWT) at -125 mmHg for 5-10 days, and NPWT dressings were changed every 5 days.

Conclusion

• Results from these cases suggest that FIDs can be applied to patients for effective effluent management, thereby allowing skin grafting to a nearby wound.

• Skin grafting can allow formation of intact skin around enteric fistulas and ostomies, which could allow providers to transition patients to standard ostomy appliances.

Results

• FIDs were placed onto 4 patients (1 female and 3 males) ranging in age from 44- to 81-years of age.

• Comorbidities included type 2 diabetes mellitus, vascular disease and coagulation disorders, and cancer.

• FIDs effectively helped seal the fistula effluent away from the newly placed grafts, and excellent graft take and wound healing occurred for all four patients (Figures 1-4).

• Ultimately, peri-fistula skin was fully healed, and each patient was transitioned to a standard ostomy pouch system for effluent management.

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Patient 1. A 52-year-old male undergoing takedown of small bowel fistula and complex ventral hernia repair.

Patient 2. A 44-year-old female admitted for necrotizing fasciitis with enterocutaneous fistula at a prior hernia site.

Patient 3. A 39-year-old male with multiple traumatic injuries after being run over by a train.