

Impact of Moisture Management Fibril Gelling Dressing on Challenging Wounds: Case Series

Joan Hughes, BSN, RN ; Pamala Harness, BSN, RN, CWON, CWS, OMS - Hamilton Wound Care & Hyperbaric Center

BACKGROUND & PURPOSE

Acute and chronic wound management consists of maintaining a moist wound bed for wound healing.^{1,2} Associated chronic etiologies for highly exudative wounds include, but not limited to Diabetic Foot Ulcers (DFU), Venous Leg Ulcers (VLU), and Pressure Injuries.

Management of wound exudate is an important factor to consider when selecting an advanced wound care product. An ideal dressing should not only absorb exudate but maintain an optimally moist environment while preventing backflow, which can lead to further wound breakdown and delays in wound healing.

METHODS

A prospective case series was completed utilizing a fibril gelling dressing* with moisture management technology† on 3 patients with challenging exudating DFU and VLU wounds. Additional secondary absorbent dressings / layers were used based on the clinicians' discretion. The patients were reassessed two to three times weekly for wound progression to closure via wound measurements, description of the wound bed, periwound status, and amount of exudate

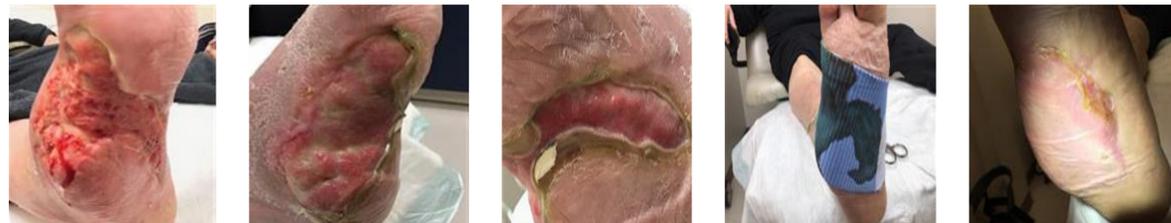
Initially different wound products and treatments were utilized such as medical grade honey foam, calcium alginate, collagen, NPWT, and TCC. The fibril gelling dressings* were implemented in the plan of care (POC) to manage wound exudate and improve periwound tissue integrity.

RESULTS

Improvement observed with each subsequent visit with wound healing as follows: flattening of wound edge due to ability of dressing to conform to wound surface, management of exudate which facilitated an environment to enhance formation of granulation tissue and protection of periwound from maceration which decreased potential risk for skin breakdown and risk of infection. The patients presented obtained wound closure within 15 weeks of treatment or less.

CASE #1

- 52 y/o male with PMH of DM Type 2, HTN, PVD, COPD, Tobacco abuse presented with DFU, Wagner 3 requiring 4th and 5th ray amputation. Treated with IV antibiotics and NPWT at 125mmHg continuous with dressing changes 3 times per week.
- Tissue biologic applied and failed due to infection. Treated with oral antibiotics.
- Revascularization procedure performed. Treated for 8 weeks with collagen, antimicrobial dressings, absorbent pad and bulky rolled gauze with no significant improvement.
- POC changed to fibril gelling dressing*, absorbent pad, bulky rolled gauze and TCC. Frequency of dressing change 2 times per week and wound closure achieved in 9 weeks.



CASE #2

- 42 y/o male with PMH of DM Type 2, Morbid Obesity, Neuropathy, SOB, Tobacco abuse presented with Left heel DFU, Wagner 2. No evidence of PAD on vascular studies.
- Initially treated for 6 weeks with calcium alginate, absorbent pad, bulky rolled gauze, edema wear and a CROW boot for off-loading with minimal improvement.
- POC changed to fibril gelling dressing*, absorbent pad, bulky rolled gauze and 2-layer compression wrap. Frequency of dressing change 3 times per week and wound closure achieved in 15 weeks.



CASE #3

- 56 y/o male with PMH of PVD, Charcot arthropathy presented with right lower extremity VLU to the medial ankle present for 3 months prior to seeking treatment.
- Treated for 8 weeks with therapeutic honey, steroid cream to periwound, absorbent pad and 2-layer compression wrap. Wound complicated by infection, large amount of exudate and maceration to periwound. Treated with oral antibiotics.
- POC changed to fibril gelling dressing*, absorbent pad, conforming rolled gauze and 2-layer compression wrap. Frequency of dressing change 2 times per week.
- After 1 week, periwound excoriation and reduction in wound measurement observed. Wound closure achieved in 12 weeks.



DISCUSSION

The gelling fibers combined with the moisture management technology allowed for the exudate to not only be transferred into the secondary absorbent dressing, but also be contained within the dressing itself at optimal levels. The technology prevented leakage or backflow onto the periwound rather than utilization of a traditional calcium alginate, medical grade honey or antimicrobial dressing.

The dressing facilitated the wounds' progression from the stalled inflammatory phase onward towards wound healing primarily due to the moist not overly saturated wound/dressing interface. The simplicity of application and removal process was an additional benefit for patient compliance to plan of care.

CONCLUSION

Fibril gelling dressing* with moisture management technology † is an effective treatment for various DFUs and VLUs. The construction of the fibril gelling dressing* plays a key role in facilitating wound resolution.

The benefits of utilizing this dressing were:

- Flattening of the wound edge
- Decreased maceration to periwound
- Improvement in periwound inflammation
- Maintained optimal moist wound environment

FOOTNOTES

Milliken Healthcare Products, LLC, Spartanburg, SC:

†Active Fluid Management Technology

*AGILE Fibril Gelling Dressing

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