SAWCSpring CS-135



Introduction

Squamous Cell Carcinoma (SCC) is the second most common type of skin cancer². It presents as a superficial, non-healing chronic rash or an invasive red papule, nodule, or plaque. Wounds after SCC resection and chemo/radiotherapies are not uncommon and often require supportive wound care³.

This case report describes the use of a novel biomimetic matrix (BMM) in managing a chronic wound post-SCC resection that failed to progress after repeated skin substitute therapy in a patient with several risk factors for impaired healing and wound recurrence. **BMM (G4Derm Plus, Gel4Med Inc.)** is an FDA-approved flowable antibacterial polypeptide technology designed to prevent infection and support tissue regrowth while conforming to irregular, deep, and hard-to-access wounds.

Methods

The patient was a 78-year-old female with a medical history of diabetes, venous disease, Parkinson's disease (and reduced mobility), lymphedema, hemosiderosis, psoriasis, skin fibrosis, and previous skin cancer. She developed a chronic wound in the right anterior leg, mid-tibia, post-excision of a large squamous cell carcinoma.



Fig. 1: Patient comorbidities (left panel) and photographs of wound presentation after 10 applications of fish skin grafts (right panel).

The wound remained chronic despite the diligent "Prepare for Repair" protocol⁴ and repeated applications of a fish-derived skin substitute. After 10 applications of failed treatment with fish skin grafts, the patient was switched to BMM, applied topically per manufacturer's instructions, alongside continued standard of care including multilayer compression. Wound healing progression, peri-wound skin condition, and adverse events were monitored throughout the study.

FLOWABLE BIOMIMETIC MATRIX MOVES CHRONIC WOUND FROM FAILED SKIN SUBSTITUTE THERAPY TO COMPLETE CLOSURE: A CASE REPORT

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Results

1st Application April 4, 2024



5th Application May 9, 2024

Full Closure

2nd Application April 18, 2024



Follow-up I May 23, 2024







Fig. 2: Five applications of BMM resulted in complete wound closure. A substantial improvement in the peri-wound skin was also noted.

Discussion

BMM successfully facilitated healing a chronic wound that failed to respond to repeated treatment with advanced fish skin grafts, in a patient with several comorbidities, achieving complete wound closure with only five applications. BMM also improved the overall appearance and integrity of the peri-wound skin. BMM is easy to use, apply, and spread onto the wound bed, supplied in a ready-touse shelf-stable pre-filled syringe with an optional flexible applicator tip.



Significant **reductions in wound** size and depth were noted after a single BMM application.

Complete wound closure was achieved with **five BMM applications** without recurrence at follow-up.

References

²Fania L, et al. Cutaneous Squamous Cell Carcinoma: From Pathophysiology to Novel Therapeutic Approaches. Biomedicines. PMID: 33572373. ³Kim P, et al. Guidelines of care for the management of cutaneous squamous cell carcinoma. J Am Acad Dermatol. 2018. PMID: 29331386. ⁴Regulski, M. Preparing to Repair in Diabetic Wound Care: Insights from an Expert | Podiatry Today (hmpgloballearningnetwork.com)









