

Clinical Case Report



Necrotic DFU

&

bio-ConneKt[®]

Wound Matrix



Necrotic DFU

A Case Report

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ABSTRACT

A 67 year-old male presented with ulceration of the plantar 1st metatarsal head. Biomechanically he presented with gastroc-soleal equinus and a rigid first ray secondary to the contraction of the peroneal longus. Surgery was performed to lengthen the gastroc complex and a tenotomy was performed to the peroneal longus. In the post-operative process, the surgical wound healed with no complication. However, the patient applied a tight dressing bandage to the foot resulting in a necrotic ulceration to the lateral 5th metatarsal head.

In order to facilitate wound closure, the **bio-ConneKt® Wound Matrix**, a FDA-cleared ECM-based advanced wound care dressing, was used as a treatment option. The **bio-ConneKt® Wound Matrix** is engineered to help close chronic wounds in combination with standards of care by meeting the challenges presented in a diabetic wound microenvironment. After aggressive sharp debridement, the product was secured to the wound that measured 2.7 x 2 x 0.3 cm. In 6 weeks complete wound closure with full epithelialization was achieved. A combination of diabetic and pressure wound poses a even more demanding physiological environment for healing to occur. The mechanical and biochemical attributes of the **bio-ConneKt® Wound Matrix** enabled optimal maintenance of the wound bed in a healing mode.

HISTORY

Past Medical History: Patient medical history was positive for Insulin Dependent Diabetes Mellitus, CAD, PVD, HTN. He smoked 3 cigarettes per day and demonstrated complete loss of protective sensation to the bilateral lower extremities to the level of the distal 1/3 of the tibia.

PE includes: General physical exam was negative. Vascular exam demonstrated palpable pedal pulses and immediate capillary refill time. Initially, the left foot had a plantar ulceration to the 1st Metatarsal head. During the post-operative period for the initial wound, he developed a lateral 5th metatarsal head ulceration with necrotic tissue. Wound measured 2.7cm x 2cm x 0.3cm.



Initial Wound Presentation

TREATMENT

Surgical procedure: Excisional wound debridement was performed followed by application of bio-ConneKt® Wound Matrix to the wound bed. Steri-Strips secured the graft intact and a Unna Boot was applied. Post-op dressing was applied and patient was allowed to weight bear in a CAM boot. Following a post-op observation on day #3, weekly dressing changes were performed and the Steri-Strips and graft were left intact.

At weekly dressing changes, antimicrobial silver was applied over the Steri-Strips to minimize infection, and Unna boot was continued for edema control.

6 weeks: With minimal standard of care follow-up, the wound healed completely with healthy epithelialization.

Day 0 – Procedure Day



6 weeks – Full closure



Dr. Bednarz's concluding remarks:

*“ A complicated wound resulting from both metabolic (diabetes) and physical (pressure) etiologies require specialized care to effect closure. The **bio-ConneKt® Wound Matrix** enabled me to achieve the result with just **ONE** application with minimal post procedural care. “*

bio-ConneKt® Wound Matrix

5 Differentiating Features

The bio-ConneKt® Wound Matrix is a next generation, all biologic, FDA 510(k) cleared wound dressing. It is comprised of reconstituted Type I collagen that is stabilized, sterilized to SAL 10^{-6} , and stored at room temperature.



Hydrophilic scaffold to facilitate rapid fluid absorption (0.5cc per sq. cm. of surface area)



Stabilized collagen to prevent premature digestion in wound bed



Porous matrix to enable optimal host cell infiltration



Easily conformable to ensure maximum contact with wound bed



Material designed to minimize repeat applications

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Caution: Federal law restricts sale of this device by or on the order of a physician

For additional information and/or product support, email

customerservice@mlmbiologics.com. or call 844-4-MLM-BIO

More for Less for Many

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