Surgical Management of Complex Limb Salvage with Ovine Forestomach Matrix

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INTRODUCTION

Chronic wounds that lead to major lower extremity amputation have immense consequences on quality of life, and ultimately, mortality [1]. Patients who are at higher risk of limb amputation often have multiple significant co-morbidities and complicated wound histories which can limit options for successful use of treatment modalities such as extracellular matrix (ECM) technologies [2]. Ovine forestomach matrix (OFM) has been shown to be effective in wound healing and surgical reconstruction [3,4,5]. This case series evaluated the clinical safety and efficacy of OFM in surgical soft tissue reconstruction in multimorbid patients at significant risk of limb amputation.

METHODS

This cases series highlights three (n=3) complex lower limb salvage cases encompassing volumetric wounds with significant microbial contamination, undermining, and/or exposed vital structures such as tendon or bone. All patients underwent surgical soft tissue reconstruction with OFM as part of their standard of care. Primary endpoints include complicating factors/co-morbidities, time to 100% neodermis formation, recurrence, and complications..

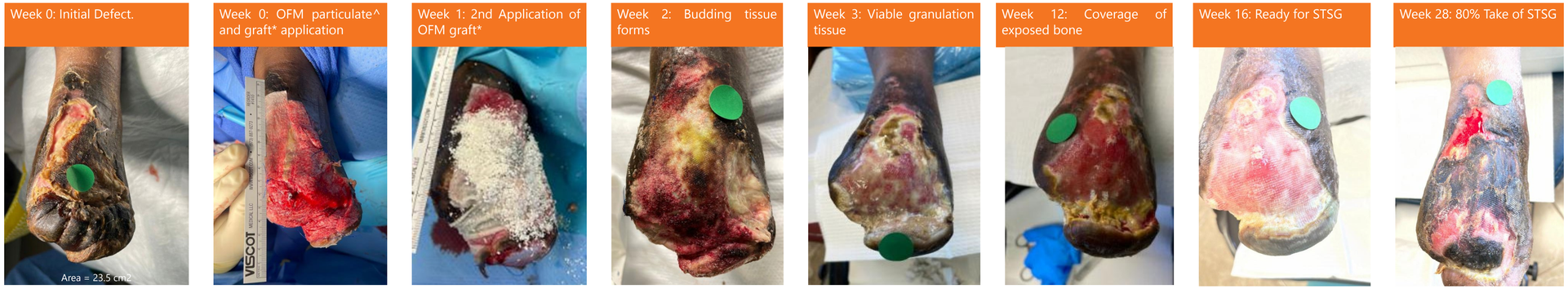
RESULTS

All patients had multiple co-morbidities complicating their healing trajectory such as uncontrolled diabetes, peripheral vascular disease, renal disease, and/or osteomyelitis. All patients had wound chronicity greater than 6 months prior to surgical intervention with OFM. All patients achieved 100% neodermis formation within the study period. There were no recorded recurrences nor complications following surgical soft tissue reconstruction with OFM.

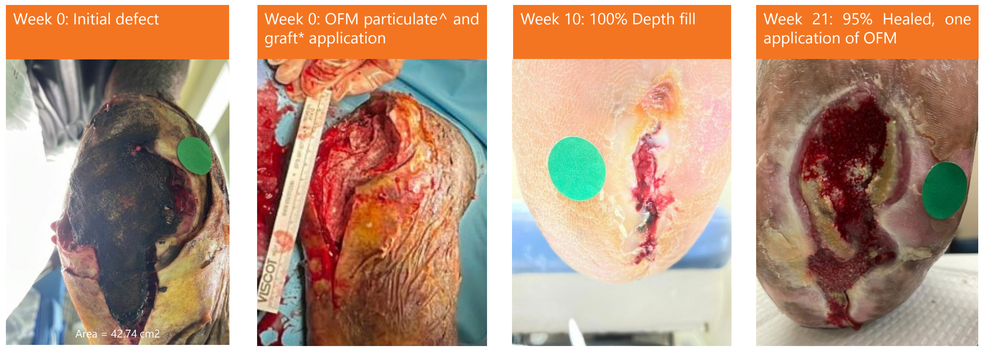
CONCLUSION

The preliminary findings of these data demonstrate clinical safety and efficacy in treatment of complicated limb salvage with OFM. Further study of similarly complex patient cohorts reflecting those who are most vulnerable to life-altering limb loss is needed to evaluate these initial data.

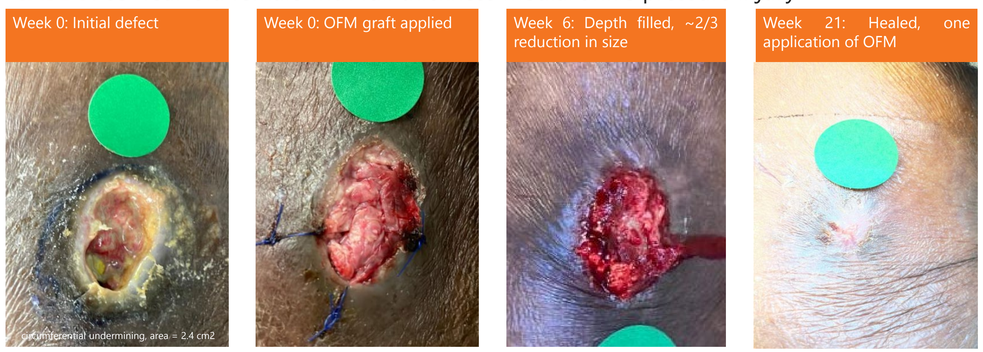
CASE 1: 29-Year-old female with diabetes, PVD presents with infected, dehisced TMA – refused BKA



CASE 2: 63-Year-old male, full thickness DFU with gangrene and exposed bone



CASE 3: 85-Year-old female with full thickness medial ankle pressure injury



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