

CS-133 Adjunctive use of Cryopreserved Umbilical Amnion in the Successful Management of Post-Traumatic, Complex Wounds

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Introduction

Wounds are a common and complex problem representing 5% of all emergency room visits. Traumatic wounds are extraordinarily difficult to manage, especially when there is exposed bone, muscle, orthopaedic hardware, or tendons. We report the outcomes of four patients successfully managed with adjunctive Umbilical Cord (UC).

Methods

A retrospective review of four patients was performed. All patients were treated with adjunctive UC* between August 2021 to October 2021 by the author.

Results

Case 1: 54 year old male who fell 10 feet off a ladder, presented with Left Grade IIIA open tibial pilon fracture. Patient had several debridements along with staged fixation, ORIF. By 6 weeks post injury, he had a necrotic region of medial leg from his traumatic wound site. Wound was debrided and a 8x3 UC was placed directly over exposed bone. Wound healed completely by 2 months after application of UC.



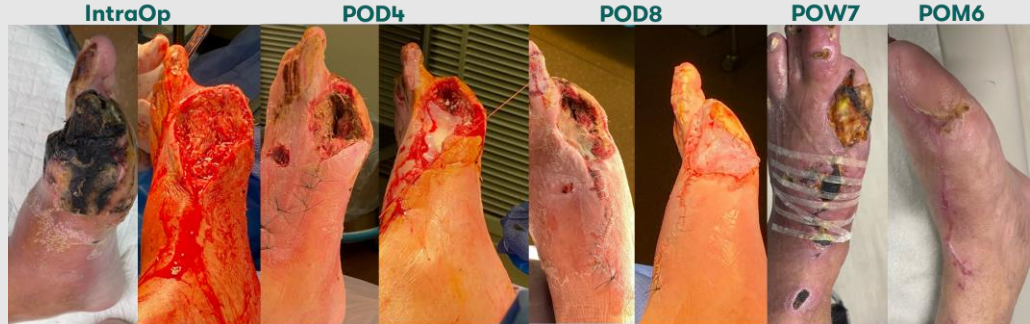
Case 2: 22 year old male was involved in a motor vehicle accident and presented with a Left Grade IIIB open olecranon fracture. Wound was debrided and had primary ORIF with placement of a 4x3 UC over exposed bone and hardware. Patient was noncompliant and did not do any wound care. He had complete healing at 8 weeks



Conclusion

Use of adjunctive Umbilical Cord allows for immediate coverage of traumatic complex wounds. These injuries would otherwise require Plastic Reconstructive Procedures. The UC tissue allowed for early coverage that creates a functional and aesthetic result.

Case 3: 67 year old male, smoker with Type II Diabetes, presented with a necrotic left foot that had a distal auto-amputation of the large toe. He had gangrene with osteomyelitis and exposed bone. Recommendation by Infectious Disease was primary below knee amputation. He underwent 1st ray amputation along with two other debridements. At his third surgery he was grafted with 8x3 UC. By 6 months the wound was completely healed.



Case 4: 25-year-old male who was involved in a motor scooter accident, presented with bilateral tibia fractures. His left was a Grade IIIB open injury. He had two debridements, along with ORIF. He was grafted with 8x3 UC at his second surgery. Granulation started at 3 weeks, and he had complete wound healing at 3 months.



*NEOX® 1K, BioTissue, Miami, FL

References: 1. Am J Emerg Med. 1996 Jul;14(4):341-5 2. Invest Ophthalmol Vis Sci. 2016 Apr 1;57(5):ORSFh1-8.