

Beyond The MESS: Exploring The Role Of The Mangled Extremity Severity Score & Single Stage Surgery In Limb Salvage Decisions

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INTRODUCTION:

The Mangled Extremity Severity Score (MESS) is a widely used tool to guide decisions on limb salvage versus amputation in severe lower limb trauma. However, its strict application may not fully account for advancements in surgical techniques and individualized treatment approaches. This case reports on following a timely early surgical intervention, in high MESS case, leading to successful limb preservation and good recovery.

REPORT:

A 26-year-old Nepali man sustained a workplace injury, in which concrete fell over his bilateral lower limb, resulting in a crush injury to both lower limbs. Examination confirmed open wounds over distal aspect bilateral lower limb with bone exposed and active bleeding. Neurovascular integrity was intact. Imaging confirmed a comminuted fracture of the right midshaft tibia-fibula and an open pilon fracture of the distal left tibia-fibula. Despite the severity of the injuries, a single-stage surgical approach was pursued. The patient underwent immediate wound debridement, open reduction, and internal fixation (plating) of both tibia, plating of the left lateral and medial malleolus, and right anterior tibialis tendon repair. The wound was primarily closed with sutures. Patient was admitted for intravenous antibiotic therapy and wound care. Postoperatively, daily dressing was done, and physiotherapy commenced. the wounds healed well, and the patient achieved independent ambulation without aid at

Figure 1: Presentation of comminuted exposed tibia at medial aspect distal left leg



He was reviewed back in the clinic at follow-up intervals of three to four weeks. All surgical and traumatic wounds healed uneventfully without evidence of infection. Patient has since been able to weight bear and achieved independent ambulation.

Figure 2: Radiograph taken post fixation



CONCLUSION:

This case highlights that MESS is a valuable initial triage tool but should not dictate limb salvage decisions. Advances in trauma care and surgical expertise allow for successful single-stage limb salvage in appropriately selected cases, emphasizing the importance of early and aggressive intervention.

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