

Open Crush Injury of Foot and Ankle in a young lady : A case report

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INTRODUCTION:

Crush injury is the result of physical trauma due to compression force to the body. Open crush injury of foot and ankle are associated with high-energy trauma with severe soft-tissue damage, complex fracture with bone loss and functional loss such as instability. Management in this kind of injury is challenging and the outcome is variable depend on the services of facility and patient factors.

REPORT:

18 years old healthy lady who involved in motor-vehicle accident in September 2022. She was presented with only degloving wound of right dorsal foot, extensor hallucis and digitorum longus tendons torn, dorsalis pedis artery cut at the level of ankle with substance loss and tarsal bone fracture. X-ray shown lisfranc injury, head of fifth metatarsal bone, medial and intermediate cuneiform, superior surface of talus head bone loss and medial malleolus fracture. Antibiotics was initiated immediately in emergency department follow by wound debridement, extensor tendons repaired, screw fixation of medial malleolus and temporary K-wire fixation of the mid-tarsal bones. Post-operatively she was managing in ward and complicated with pseudomonas wound infection. Second look wound debridement with necroses tendons and skin debrided, cross ankle external fixation and vacuum-assisted closure dressing was applied in preparing the wound bed for closure.

She has her final definitive surgery done after 6 weeks, in which two bridging plate inserted from talus to first and second metatarsal bone with iliac bone grafting to maintain the medial and middle column of foot, reconstruction of the extensor mechanism with tensor fascia latae



Figure 1



Figure 2

Figure 1: Initial wound pictures and X-ray
Figure 2: Final result of soft tissue and bony reconstruction

tag over the distal stump of extensor tendons with anterolateral thigh fasciocutaneous flap for wound closure.

CONCLUSION:

We decided for foot salvage surgery as she is young and fit, with the multidisciplinary supported, aim to provide a pain-free functional and plantigrade foot that fits into a shoe for ambulation. Delay in wound closure exposed the risk for infection and cause delay in definitive management and prolonged hospitalisation. Decision making of treatment, either limb salvage or limb amputation, is important to patient as it determine patient life modification after trauma.

REFERENCES:

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