

# Dawn Of Hope for Limb Salvage with Negative Pressure Wound Therapy:

## A case report

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### INTRODUCTION:

Open fractures are amongst the most common cases encountered in Orthopaedic practice. Managing patients with extensive soft tissue and bone loss can be extremely challenging. We share a case report of a patient with an open fracture dislocation of right ankle with extensive soft tissue and bone loss. Despite the extensive nature of injury over his ankle, he strongly refused amputation and in attempt of limb salvage he was treated with modified negative pressure wound therapy (NPWT).

### REPORT:

A 62-year-old, Chinese male presented after a motor vehicle accident with contaminated open fracture dislocation of right ankle with near circumferential degloving wound (Gustilo Anderson Grade 3B) and Mangled Extremity Severity Score (MESS) of 8. However, he refused for amputation and opted for debridement and stabilization with cross ankle external fixation. Despite wound debridement, wound appeared unhealthy with necrotic bone and tissue. In addition, wound cultures taken yielded growth of *Pseudomonas Aeruginosa* and *Proteus Mirabilis*. The extensive nature of the wound around the ankle joint with an ongoing infection offered little hope for limb salvage. We started on a modified wall suction of NPWT with irrigation as a last attempt of limb salvage. After completion of five cycles of NPWT with irrigation, the wound demonstrated drastic improvement after a repeated wound debridement. Eventually, the wound bed was adequately prepared and ready for coverage after 3 weeks of NPWT with irrigation.



Figure 1: Contaminated open fracture dislocation of right ankle with soft tissue loss.

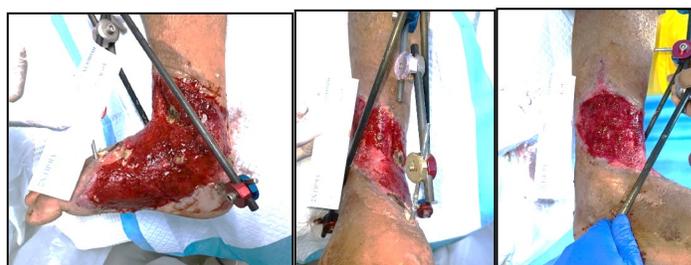


Figure 2: Wound after modified NPWT with irrigation prior to flap

### CONCLUSION:

NPWT with irrigation reduces the duration of wound healing as well as provides hope for limb salvage in treating open fractures with extensive soft tissue injury.

### REFERENCES:

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- Raj, M., et al., *Evaluation of Vacuum Assisted Closure Therapy for Soft Tissue Injury in Open Musculoskeletal Trauma*. *J Clin Diagn Res*, 2016. 10(4): p. Rc05-8.