

ADVANTAGES OF NEGATIVE PRESSURE WOUND THERAPY IN SALVAGING CRUSHED FOOT – CASE REPORT

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INTRODUCTION:

Tendon or bone exposure was very common following acute trauma in the ankle and foot. Previously, wet dressing was used in order for granulation tissue take place. However, for past few years, negative pressure wound therapy (NPWT), which was introduced by Argenta and Morykwas, was used as an alternative for faster soft tissue coverage. It also help in reducing oedema and enhance local blood supply.

REPORT:

41 years old male, was brought to emergency department following motorvehicle accident. He was found to have severe crushed injury of foot with multiple tarsal bone fracture. Since the circulation is still intact and stable haemodynamically, he undergoes debridement, external fixator and multiple kwire to stabilize the fracture. Throughout admission, the wound was managed with multiple cycle of negative pressure wound therapy and shows positive effect. After achieving adequate granulation tissue, skin graft was performed. After 4-5 months later, the fracture already united and wound already healed .

Figure 1: initial wound posoperatively



Figure 2: progression of wound on serial NPWT



Figure 1 shows initial wound post wound debridement while figure 2 show the progression of the wound after cycles of NPWT where it shows positive result in accelerating wound healing and prepare for wound closure later. In about 1 months time, the wound is ready for wound closure in which for this case is skin grafting. About 3months after, he already went back to his routine activities as usual.

CONCLUSION:

Traumatic injuries around foot especially crush injury often associated with significant skin loss, which can result in exposure of important structure underneath. Rapid formation of granulation tissue and blood vessel are very essential for the soft tissue coverage to prevent unnecessary complication ie infection and patient able to regain his functional activities as soon as possible.

REFERENCES:

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