Management Of Large Diabetic Wound Defect Using Ilizarov External Fixator

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INTRODUCTION:

Diabetic wounds cause major morbidity, disability, frequent hospital visits requiring dressing or repeated surgeries, and financial burden. These wounds resulted from the triad of immunopathy, vasculopathy, and neuropathy. Few authors reported the technique of salvaging diabetic wounds using Ilizarov external fixator. We report a case of a 56-year old man presented with a large diabetic wound defect over his right ankle. An Ilizarov external fixator was applied to achieve a stable ankle wound and tibio-talar joint fusion. The wound rapidly healed in 2 weeks, preventing limb amputation.

Figure 1: Initial wound

Figure 2: After debridement

Figure 3: Wound healed

CASE REPORT:

We present a 56-year old diabetic patient with a cavitating wound that exposed his right distal tibia and tibio-talar joint. Urgent wound debridement was performed leaving a large defect over his right ankle measuring 5x4 cm. Several cycles of negative pressure wound therapy was applied, however it failed to heal due to an unstable wound over the ankle. Subsequently, an Ilizarov external fixator was applied across his right ankle to achieve a stable wound and tibio-talar fusion. The wound rapidly healed in 2 weeks, and tibio-talar fusion was achieved after 6 months.

DISCUSSION:

This report will discuss on the versatility of Ilizarov external fixator in closing large wound defects, goals of treatment, its contraindication, and complications of such methods.

CONCLUSION:

Large diabetic wound defects that expose underlying tendon, joint or bone can be managed by establishing a stable wound using Ilizarov external fixator. This method is best applied once thorough tissue and bone debridement are performed. Eradication of osteomyelitis is paramount.

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