

Treatment of chronic osteomyelitis of calcaneal with local antibiotics to provide better outcome and limb salvage

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INTRODUCTION

Calcaneal osteomyelitis accounted for 7 to 8% of all osteomyelitis cases in adults. Incidence is often associated with diabetes and presented after traumatic event. Diagnosis established based on clinical features, radiological assessment, and bacteriological analysis. Principal treatment is by antibiotic administration, adequate irrigation, and debridement. However, in chronic phase of calcaneal osteomyelitis, procedures of treatment become difficult as calcaneal has skin attached very tightly to bone with short dense fiber, often causing erosion and ulceration with skin loss.

REPORT:

A 27 years-old male with no comorbid had an injured right heel after he stepped on a rusty nail. Initial treatment with debridement and antibiotics were given for infected heel wound. However subsequently patient had presented to our facility with chronic osteomyelitis of the right calcaneus. Patient underwent two stage surgery, for debridement curettage of the calcaneus with antibiotic bone cement (Tobramycin) placement. Then proceeded with antibiotic cement removal and implantation bioactive glass granule and bone putty.

CONCLUSION:

Chronic calcaneal osteomyelitis is a challenging condition that needs urgent treatment. It is often associated with amputation as a complication. This treatment is effective in infection eradication however associated with inefficient gait, reduced physical activity, and increase mortality rates by 70% at 5 years in diabetic patient. The use of antibiotic bone cement and bioactive glass granule as local antibiotics provided better outcome and proved as a choice of treatment for limb salvage in managing chronic osteomyelitis of the calcaneus.



Figure 1. Preoperative CT scan(above) & Postoperative x-ray (below)



Figure 2. Intraoperative implanting bioactive bone glass and bone putty

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