

Challenges In Treating A Pan-tibia Osteomyelitis

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INTRODUCTION:

Chronic osteomyelitis remains a challenging condition to diagnose and treat.¹ Most patients with osteomyelitis receive two-stage management.^{1,2} We report a case of a patient with pan-tibia osteomyelitis that underwent a two-stage treatment.

REPORT:

A 61-year-old lady with type 2 diabetes was initially treated for infected right diabetic foot ulcer which complicated into distal tibia osteomyelitis. The blood investigations showed raised CRP at 147mg/L and the total white cell count at 13.5K/uL. The extent of infection was assessed with magnetic resonance imaging, and it revealed osteomyelitis-periostitis-myositis of the distal right tibia (Figure 1).



Figure 1: A coronal section of T2 MRI of left tibia.

The patient underwent a two-stage treatment. Aim of the 1st stage is for debridement and obtaining tissue and bone culture. The infected surrounding soft tissue was thoroughly debrided until the cloaca at distal tibia. The medullary canal was reamed, and the unhealthy intramedullary tissue was vented out through the distal tibia cloaca. Bone cement mixed with

40g of Gentamicin was prepared. After the cement is set, it was moulded on a rush rod to form an antibiotic cement rod. The antibiotic cement rod was inserted into the intramedullary canal.

Organism was identified and therapeutic antibiotic was given. Monitoring of infective markers showed good response towards the treatment. After 8 weeks, the 2nd stage was done. The cement rod was removed, and an Interlocking nail was inserted.

Post operatively, patient's clinical conditions improved. Plain radiograph showed improvement with no signs of recurrence of osteomyelitis. The wound healed well, and she was able to start ambulating by 8 weeks.

CONCLUSION:

In chronic osteomyelitis, identification of causative organism is vital to guide antibiotic therapy following a thorough debridement. Temporary stabilization with antibiotic rod will allow intraosseous antibiotic delivery for eradication of infection. After infection is cleared, then only definitive stabilization can be performed.

REFERENCES:

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