

Use Of Stimulan In Recurrent Chronic Osteomyelitis

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INTRODUCTION:

Chronic osteomyelitis (COM) is a persistent bone infection that often develops after an inadequately treated acute infection, leading to significant morbidity, particularly following trauma or orthopedic surgery.

REPORT:

A 25-year-old male presented with left leg pain, swelling, and skin changes for a month (Figure 1.1). He had left tibial surgery in 2009 and a subsequent surgery for osteomyelitis (OM) in 2018. Radiographs revealed a lytic lesion in the proximal tibia (Figure 2.1), and MRI showed a rim-enhancing lesion with a sinus tract and surrounding soft tissue inflammation (Figure 3). He was diagnosed with recurrent COM.



Figure 1: Clinical images of patient's wound.

The patient underwent sinusectomy, wound debridement, bone curettage, and insertion of Stimulan (impregnated with 2g of Vancomycin and 240mg of Gentamicin) (Figures 1.2 & 2.2). At 2 months, the Stimulan had fully resorbed (Figure 2.3), and the patient was ambulatory and had returned to work. At 1-year follow-up, there were no signs of recurrence (Figures 1.3 & 2.4).

Stimulan is commonly used with surgical debridement to treat OM, helping prevent recurrence by ensuring high antibiotic concentrations reach the bone in up to 95% of cases.^{1,2} Stimulan has osteoconductive properties and resorbs over time, creating space for new bone growth.³ While the short- to mid-term outcomes are promising, more long-term data are needed to assess its full impact on bone healing and recurrence, particularly in complex or recurrent OM cases.

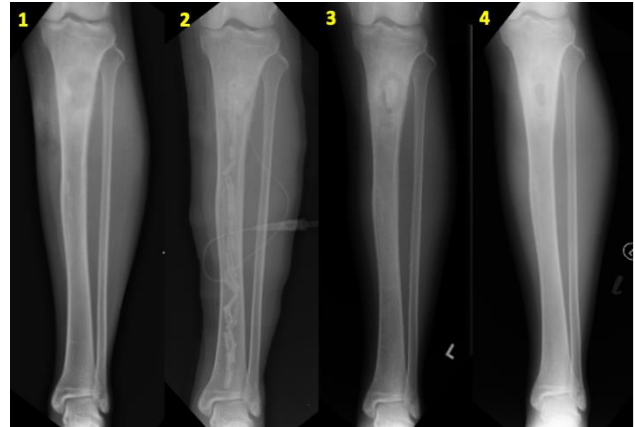


Figure 2: Serial X-rays.

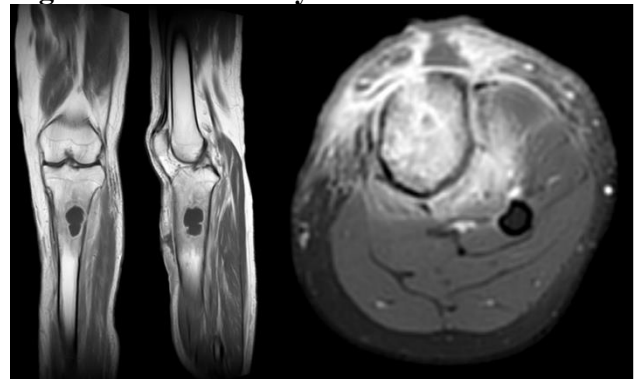


Figure 3: Pre-operative MRI.

CONCLUSION:

In this case, Stimulan was effective in controlling infection and supporting bone regeneration without any complications.

REFERENCES:

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