

CERAMENT[®] G

with Gentamicin

CASE REPORT

Medical Education Series

Treatment of Osteomyelitis in a Single-Stage Approach, Using Allograft and CERAMENT G in a Layer-by-Layer Technique

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DIAGNOSIS

45 year old

with discomfort of the proximal tibia for about 13 years and episodes of skin redness, soft tissue swelling and pain, alternating with symptom-free periods.

Radiographs of the proximal tibia showed sclerosis of the bone, but no osteolysis or sequestrum (Fig. 1). Differential diagnosis included chronic osteomyelitis and bone tumours, so biopsies were taken. Microbiology was negative, PCR for microorganisms remained negative but histology showed signs of chronic bone infection.

In a multi-disciplinary team meeting with the bone tumour unit the decision was taken to excise the affected bone.

TREATMENT

Using an anterior-lateral approach, a cortical window was prepared and the bone debrided, leaving a defect of approx. 10 x 3 x 4 cm. The void was filled with a combination of allograft and CERAMENT G, by applying first a layer of CERAMENT G and allowing it to set, then a layer of allograft, then a layer of CERAMENT G and so on (Fig. 2). For structural support a locking plate was placed to allow immediate full weight bearing.

Histology samples taken during surgery showed signs of chronic osteomyelitis, and after 14 days microbiology samples grew *Propionibacterium*. Post-operatively Meropenem and Fenoximetylpenicillin IV were given, but this was changed to oral Penicillin for a further 14 days in view of the microbiology results.

OUTCOME

Wound healing was without problems. Follow-up radiographs at three months show the start of bone remodeling (Fig. 3), which has progressed at six months (Fig. 4) and shows the start of trabeculae at 8 months (Fig. 5).

12 months after surgery, the patient has had no recurrence of osteomyelitis and remains clinically well and fully weight-bearing.

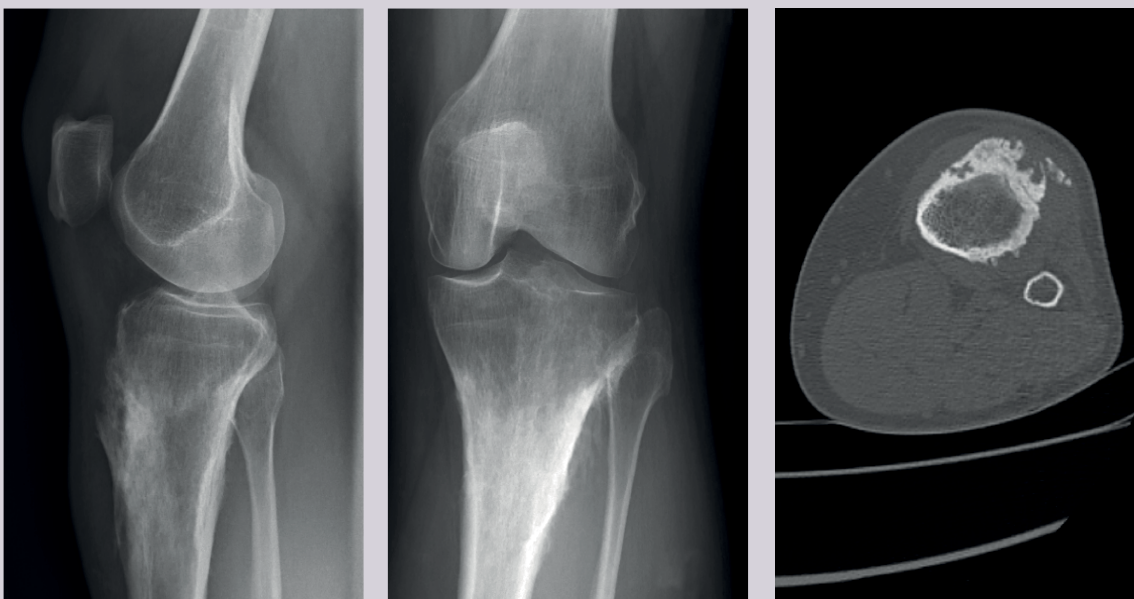


Figure 1.

CERAMENT® G with Gentamicin

TREATMENT OF OSTEOMYELITIS IN A SINGLE-STAGE
APPROACH, USING ALLOGRAFT AND CERAMENT G

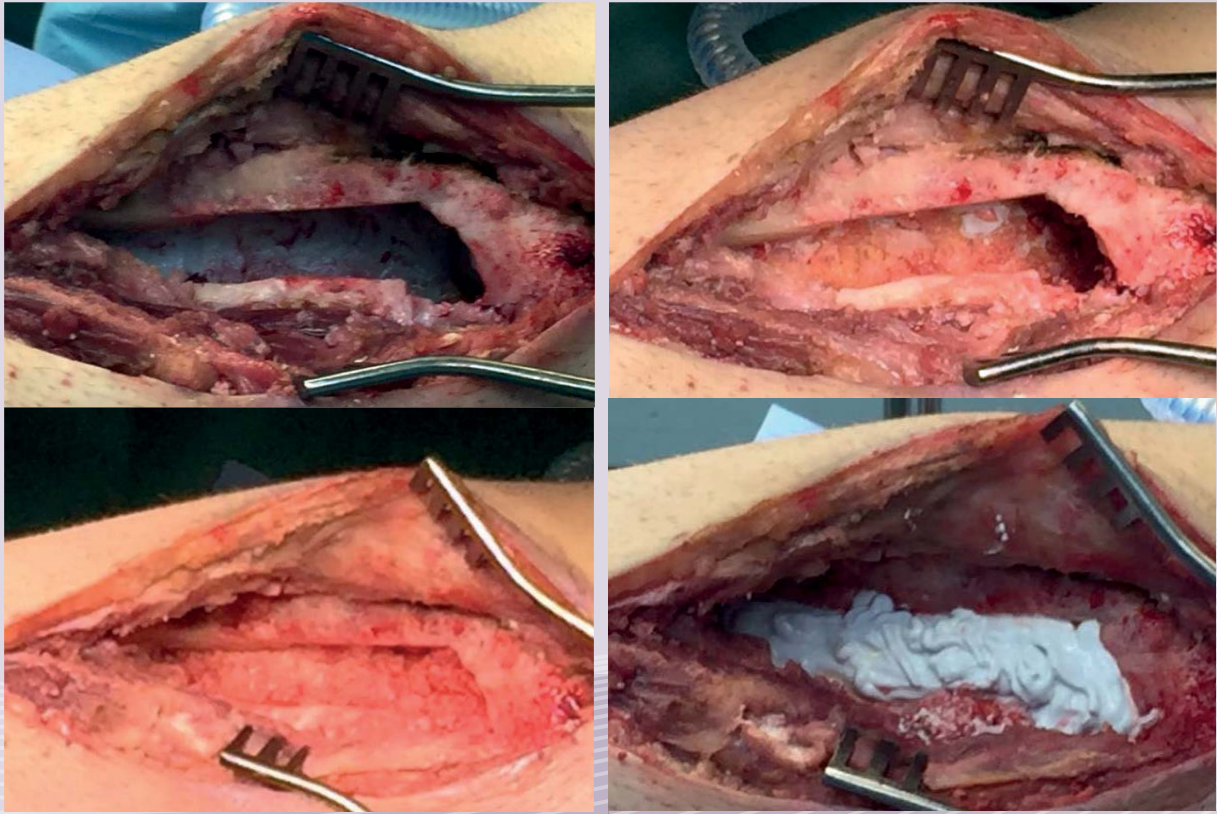


Figure 2.



Figure 3.



Figure 4.

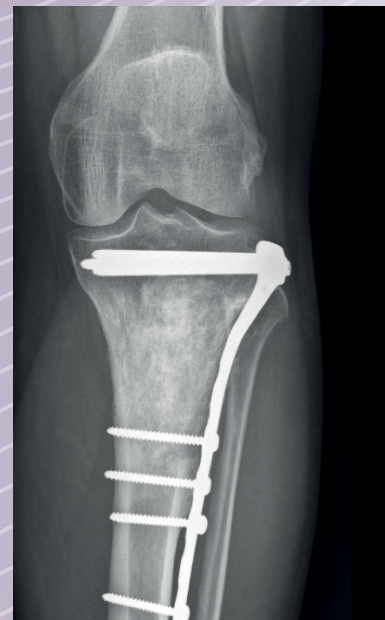


Figure 5.



Our Mission is restoring health to improve the quality of life for patients with bone disorders.

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