Treatment Of Chronic Osteomyelitis Femur Using Antibiotic Cement Rods

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INTRODUCTION:

It is difficult to treat chronic osteomyelitis of femoral shaft, which often leads to deformity and seriously affects limb function, which brings serious burden to patients life and economy. If there is dead cavity, dead bone or scar tissue without blood supply in the lesion, antibiotics can not achieve its efficacy. At the same time, due to the influence of purulent secretion of wound surface, antibiotics are easy to be diluted, and even some drugs are difficult to pass through the pus to act on tissues and long term use of antibiotics will lead to drug resistance.

REPORT:

A 42 year old lady was involved in a road traffic accident and suffered an open fracture of right femur. Wound debridement was performed over right femur thereafter retrograde nail was inserted. During follow up one month post op noted swelling over lateral thigh and ultrasound showed large anterolateral collection over right thigh. Incision and drainage right thigh was performed and tissue samples were collected from wound intraoperatively and sent for culture and sensitivity. Subsequently a second surgery was scheduled with removal of retrograde nail with a custom made cement rods impregnated with antibiotics were used for local delivery of antibiotics. All reaming by products were sent for culture and sensitivity analysis, as well as for histopathological analysis. Serial biochemical analysis using standard inflammatory markers full blood count (FBC) and C-reactive protein (CRP), plain radiographs and clinical examination were used to monitor the progress of treatment.

Figure 1: Post Operative Xray

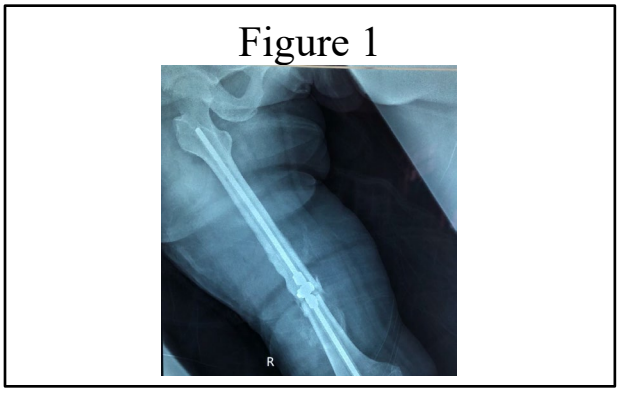
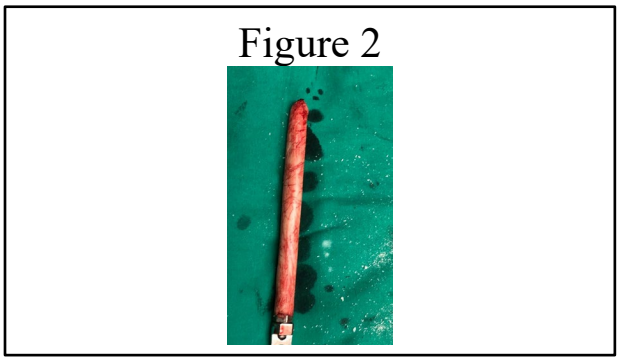


Figure 2: Antibiotic Cement Rod



CONCLUSION:

The current strategy represents a valuable adjunct to the treatment of deep infection. In particular, cement rods have been advocated for intramedullary infection, allowing the delivery of high local concentrations of antibiotics with low systemic side effects, facilitating the management of the dead space.

REFERENCES:

1. Beck-Broichsitter BE, Smeets R, Heiland M. Current concepts in pathogenesis of acute and chronic osteomyelitis. 2015;Pg240-245.