

Treatment Of Intramedullary Osteomyelitis Tibia Using Antibiotic Cement Rods

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INTRODUCTION:

Intramedullary osteomyelitis is an infection confined within or extending to medullary cavity of long bones. It can be the result of open injury, operative procedures or, more rarely, haematogenous seeding. The condition may vary in its duration and severity, but the presence of a sequestrum is considered the most appropriate way to define an infection as chronic. Infection may delay healing and is a challenging complication of trauma, requiring surgery, prolonged medical treatment, with increased morbidity for the patient.

REPORT:

A 17 year old boy was involved in a road traffic accident and suffered an open fracture of right tibia. Wound debridement was performed and his right tibia was fixed using an external fixator. Thereafter converted into interlocking nail. During follow up he developed surgical site infection. Wound debridement was performed and tissue samples were collected from wound intraoperatively and sent for culture and sensitivity. The cultures grew *Enterobacter cloacae* which were sensitive to meropenem. Subsequently a second surgery was scheduled and removal of ILN and intramedullary reaming of canal were performed and a custom made cement rod impregnated with antibiotics were used for local delivery of antibiotics. Serial biochemical analysis using standard inflammatory markers full blood count, C-reactive protein, plain radiographs and clinical examination were used to monitor the progress of treatment.

Figure 1: Pre Operative Xray

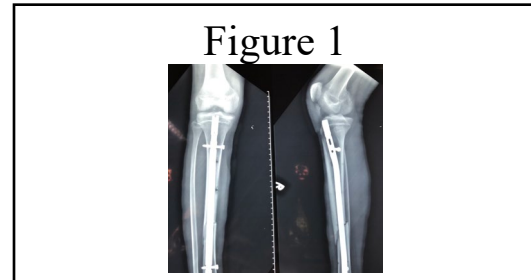


Figure 2: Post Operative Xray



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. These rods need to be removed subsequently, usually when they have stopped releasing their antibiotics around four to six weeks after insertion.

REFERENCES:

1. Bharti A, Saroj UK, Kumar V, Kumar S, Omar BJ. A simple method for fashioning an antibiotic impregnated cemented rod for intramedullary placement in infected non-union of long bones 2016;Pg171.