

CHRONIC OSTEOMYELITIS IN UNITED LONG BONE FRACTURE

Nur Azhani Indra Gunawan¹, Norsaidatul Nadriah Ahmad Shuhiamy¹, Satriya Sabir Husin Athar¹

¹Hospital Selayang

Introduction: Chronic osteomyelitis is a progressive inflammatory process that causes bone destruction and sequestrum formation. Commonly occurred in open fractures with gross contamination, closed fractures are unexceptional, especially following internal fixation of fractures. Diagnosis is challenging as the progress is often insidious and symptoms are often crude.

Discussion: A healthy 26 years old lady was admitted to Hospital Selayang with sinus and pus discharge over her previous surgical site at her right proximal thigh. Patient had a history of closed right midshaft femur fracture 5 years ago, done intramedullary nailing over her right femur 1 week post-trauma. Fracture united after 4 months post-operation and she was ambulating unaided after fracture united. She complained of right knee pain post-operation, however, no further investigation done as she defaulted her clinic follow-ups. As the pain worsened, patient went to private hospital 1 year ago. No recent history of trauma post-operation. MRI findings showed deep collection over proximal right thigh, thus proceeded with incision and drainage over her right thigh. Intraoperative there were sinuses tracking from the collection to bone, however implant was not removed. Patient returned 4 months later with a sinus over her previous surgical site. Radiograph showed united femur fracture with unobvious osteomyelitic changes. Erythrocyte Sedimentation Rate (ESR) and C-reactive protein (CRP) were raised. Wound debridement, bone curettage, and removal of implant were done. Bacterial analysis identified as *Staphylococcus aureus* and *Enterococcus faecalis*. Patient was treated with antibiotics according to sensitivity and CRP monitoring showed a steady decline.

Conclusion: Chronic osteomyelitis is an insidious disease that develops unnoticed for decades. Infections might identify as minor trauma, hematoma, or contamination intraoperation, which causes direct inoculation of normal skin bacteria to surrounding soft tissues and bone. Diagnosis is challenging and combinations of high suspicion index, clinical symptoms, laboratory, and images aid the diagnosis early.