

Clinical findings and outcomes of chronic osteomyelitis in an orthopaedic hospital in Mandalay

Ma Nwet¹, Ramachandran Vignesh², Swe Swe Latt³, Ther Htet San⁴

¹Surgical-based department, Faculty of Medicine, Royal College of Medicine Perak, Universiti Kuala Lumpur, Ipoh, Malaysia, ²Preclinical department, Faculty of Medicine, Royal College of Medicine Perak, Universiti Kuala Lumpur, Ipoh, Malaysia, ³Department of Public Health Medicine, RCSI & UCD Malaysia Campus, Penang, Malaysia, ⁴Department of Orthopaedics, University of Medicine, Mandalay, Myanmar

ABSTRACT

Introduction: Chronic osteomyelitis is an infection of the bone that not only result from acute hematogenous infection but also from penetrating injury with adjoining spread and infection had been present for many weeks. Chronic osteomyelitis remains a challenging problem for the clinician because appropriate antibiotic therapy is necessary to combat the infection along with adequate surgical therapy. **Materials and methods:** During the period from January 2014 to January 2019, the mechanism of infection, clinical findings, infecting organism, antibiotic sensitivity results and outcomes of chronic osteomyelitis were analyzed among patients admitted to Mandalay Orthopaedic Hospital, Myanmar. The study population included 206 patients and the outcomes were measured by overall cure rates without relapse after 1 year of treatment of chronic osteomyelitis. Associations between the complications and the factors were investigated and a p-value of <0.05 was considered significant. **Results and conclusion:** Of the 206 patients (123 male and 78 female) studied, the mean age was 32.52 years and the tibia bone was the most affected site (46.8%). There were significant relationships between one-year follow-up complication and the factors such as (Waldvogel Classification, Site, Culture organism, First Diagnosis Age (group)) with p<.001. The overall cure rates without relapse after 1 year of treatment were analysed in the study population. Chronic osteomyelitis continues to be a serious health problem. Prognosis depends on various factors, including the infection-causing organism, sensitivity, antibiotic types and also various surgical procedures. Antibiotic regimes are the empiric treatment of chronic osteomyelitis after surgical management.

Keywords: Osteomyelitis, infection, bone, therapy, antibiotic