

Primary Medullary Fixation for open fractures of Long Bones

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Abstract

Introduction: The aim of this study was to assess the role of primary medullary fixation in the management of open fractures of long bones appreciating its advantages and disadvantages. **Methods:** Twenty-eight patients who had open fractures of long bones (Gr II, IIIA & IIIB) were treated with wound debridement and unreamed intramedullary nailing. The criteria for fracture union were pain-free, unaided walking and bridging callus in two radiographic views. **Results:** The overall function results were graded as excellent without limitation in 50%. Good and were able to jog but some limitation of athletic participation in 35.71%. 14.28% were able to perform daily activities but unable to jog. There was no apparent correlation between functional rating and type of fracture, grade of soft-tissue injury, pain, and post-traumatic arthritis. About 86 percent of patients who had been employed before injury returned to their previous work within six months. The median time to walking with partial weight-bearing (seven) was seven weeks (range: 5 -7 weeks). The time to full weight-bearing (twelve) ranged from 10 to 24 weeks (median 12 weeks). None had evidence of post-traumatic arthritis at the last follow up. **Conclusion:** We recommend debridement with primary closure, primary medullary fixation and early antibiotic therapy for open fractures of femur and tibia. Primary skin closure not only covers the soft tissue and bone but also protects from secondary infection and improves blood supply so that early union is facilitated.