

SURGICAL MANAGEMENT OF DISTAL TIBIA FRACTURE: TOWARDS AN OUTCOME-BASED TREATMENT ALGORITHM

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ABSTRACT:

Distal tibia fractures are frequently associated with extensive soft tissue injury which leads to higher risk of complications and poor outcome. The purpose of this study is to measure the outcome of distal tibia fractures treated with internal fixation (IF), external fixator (EF) or Ilizarov external fixator (IEF). We aim to propose an algorithm for management of distal tibia fractures. This study is a cross-sectional study of all distal tibia fractures treated surgically in Tengku Ampuan Rahimah Hospital, Klang from 1st January 2016 till 30th June 2018. Patient records were reviewed to analyse the outcomes and risk factors associated with it. Ninety-one patients were included. Thirty-eight patients (41.8%) were treated with IF, 27 patients (29.7%) were treated with IEF and 26 patients (28.6%) were treated with EF. Among open fractures cases, no significant finding can be concluded when comparing each surgical option and its outcome. Initial skeletal traction or temporary spanning external fixator in close fractures reduced the risk of mal-alignment (p value=0.001). IF is seen superior to IEF and EF in close fractures in term of articular surface reduction (p value=0.043) and risk of mal-alignment (p value=0.007). This proposed algorithm can help surgeons in deciding treatment strategies to reduce associated complications.

Keywords: distal tibia fracture, pilon, plafond

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