

Introduction:

Surgical management is often complicated by the initial soft tissue damage, mal-alignment, remaining instability, or infection. The aim of this study was to describe the injury pattern, our developed operative approach for reconstruction and outcome.

Material & Methods:

A total of 52 patients of postero-medial fracture of the proximal tibia were treated from 2018 to 2022. Patients were subjected to clinical examination, radiology, and CT scans. Under high suspicion of vascular compromise, patients also underwent angiography if required. In poster-medial fracture dislocations once the medial fragment is located, reduction of the fracture is done by reducing the lateral and distal fragment to the medially reduced fragment. First, the exposure of the entire medial condyle fracture was performed following the fracture line to the articular border. Small plateau fragments were removed, larger fragments reduced and preliminarily fixed with separate K-wire(s). The postero-medial part of the condyle was then prepared for main reduction and application of a buttress T-plate in a postero-medial position, preserving the pes anserinus and medial collateral ligament

Results:

Four patients were lost to follow-up. Mean age was 45 years (20-67 years). The fractures were treated post primarily at an average of 6 days; in 28 cases a two-staged procedure with initial knee-spanning external fixator was used. All fractures healed without secondary displacement or infection. There was no significant incidence of osteoarthritis after a mean follow up of 3 years. All patients had good to excellent clinical results. The mean Lysholm score was reached 91 (70-98) of maximal 100 points. The patients achieved a mean flexion of 135° (110-145°).

Conclusion:

It is crucial to recognise the different components of the injury in the typical postero-medial fracture dislocation of the proximal tibia. The postero-medial approach for this type of medial fracture dislocation allows repairing most of the injured aspects of the tibial head, namely the medial condyle with postero-medial buttressing. The aim of surgery is to restore anatomy, regain axial length, establish adequate stability, preserve blood supply, and mobilize early.