

## Association of Tri-Plating In Tibial Plateau Fracture With Post Surgery

### Complications : Case Report

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#### Introduction:

Tibial plateau fractures account for 1% of all fractures and are typically sustained with high-energy mechanisms. High-energy tibial plateau fracture poses a significant challenge and difficulty for orthopaedic surgeons. In cases of complex bicondylar tibial plateau fractures, isolated lateral plating is frequently associated with varus malalignment and better results have been obtained with bilateral plating through dual incisions. However sometimes a complex type of bicondylar tibial plateau fractures is encountered in which medial plateau has a biplaner fracture in posterior coronal plane as well as sagittal plane. In such fractures it is imperative to fix the medial plateau with buttressing in both planes. One such fracture pattern of the proximal tibia managed by triple plating through dual posteromedial and anterolateral incisions. The main hindrance with surgical fixation of complex tibia fractures lays in the additional soft tissue damage, with an increased chance of skin necrosis and superficial or deep infections. We hereby present a case of complex tibia plateau fracture in which medial and lateral plateau had a collapse with bone loss and was adequately fixed with triple plating of tibia and resulted in good functional outcome

#### REPORT:

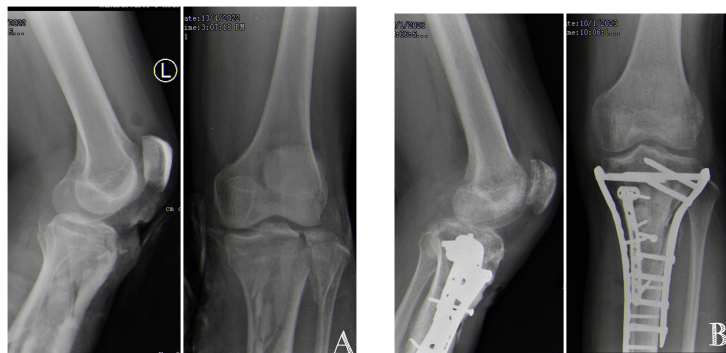
35 years old man with history of alleged motor vehicle accident which sustained pain and wound over his left knee. Plain radiograph shows split fracture over lateral condyle and depression over medial condyle of tibia.

Patient was then proceeded for treatment with wound debridement, athrotomy washout and cross knee external fixation. Based on his wound swab culture which shows mixed growth, patient was treated with intravenous Tazosin antibiotics for 14 days in total.

Upon good progress on wound healing and skin was permissible for definitive fixation, we proceeded with ORIF with locking plate and bone grafting over left tibial plateau. Intraoperatively noted patient had comminuted fracture over tibial plateau with bone loss with collapse over medial and lateral column. Medial and lateral plate inserted. Anteromedial plate inserted to support fracture fragments. Bone block and 2 lateral screw inserted. Joint congruity archived and checked under I/I.

#### DISCUSSION:

Patient is currently 2 months post operation and has been on biweekly follow up in our clinic. Noted no any signs of infection over op site and he is able to partial weight bearing and is also on routine physiotherapy follow up with significant improvement of his range of motion of left knee. Therefore , triple plating of complicated fracture of tibial plateau is essential for the stability of fracture and patients return of functionality.



**Figure A: Plain radiograph of split fracture over lateral condyle and depression over medial condyle of tibia. Figure B: Plain radiograph of fracture fixation with Medial, Lateral and Anteromedial plating.**

#### CONCLUSION:

Complex fractures of tibial plateau is safe to be treated with triple plating to archive the highest stability of fracture as possible.