

Complete posterior dislocation of whole lateral condyle fractured from tibial plateau with disruption of proximal tibiofibular joint: Technical note

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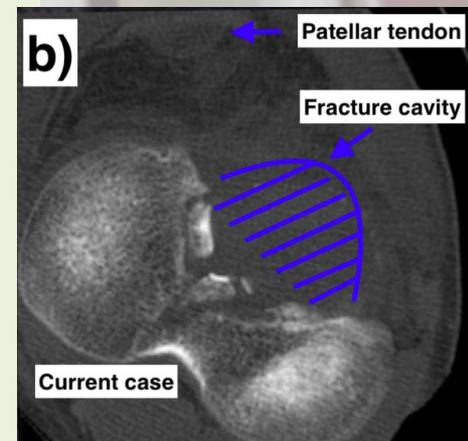
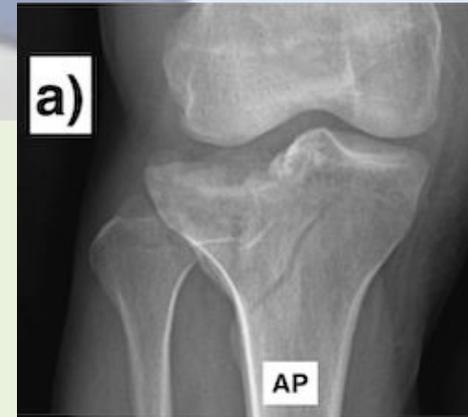
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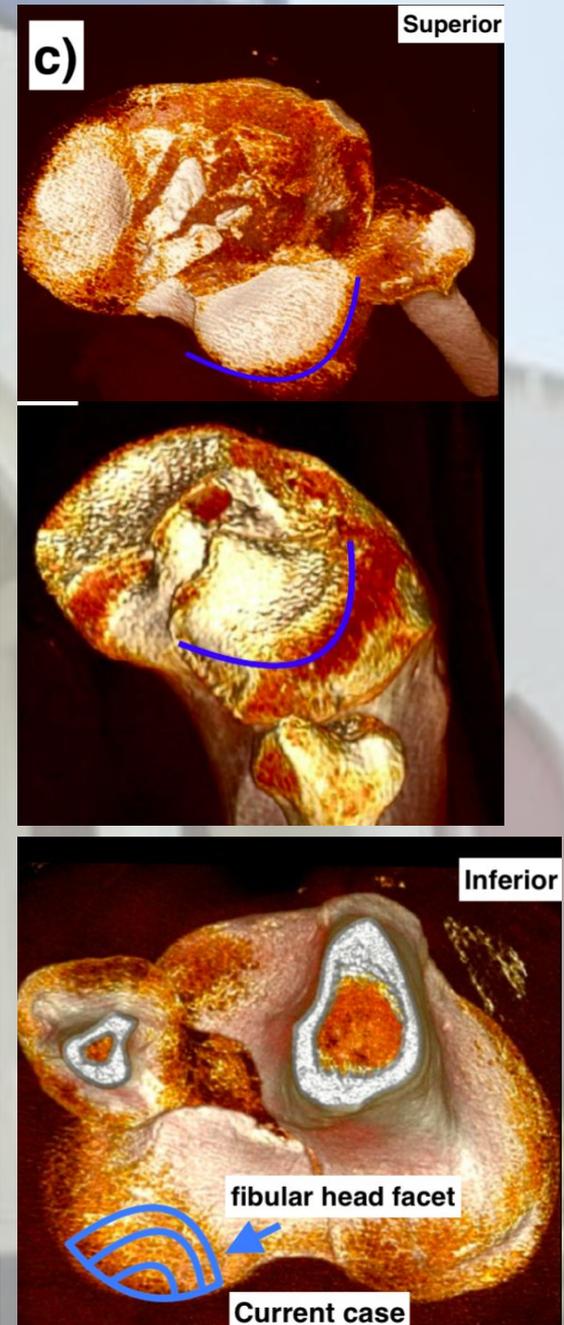
Introduction

- ❑ **Tibial plateau fracture-dislocations are relatively uncommon injuries**
- ❑ **Medial and lateral subluxations of the fractured segments represent the majority of the fracture-dislocation injuries of the tibia plateau.**
- ❑ **Posterior dislocations of the fractured tibial plateau is extremely rare.**
- ❑ **Risk of neurovascular injury**
- ❑ **Difficult reduction - floating plateau**
- ❑ **Case scenario - Whole articular segment of the lateral condyle of the tibia was fractured off its anterolateral rim and completely dislocated posteriorly, with no contact with the lateral condyle of the femur.**
- ❑ **Associated reduced distal pulse**

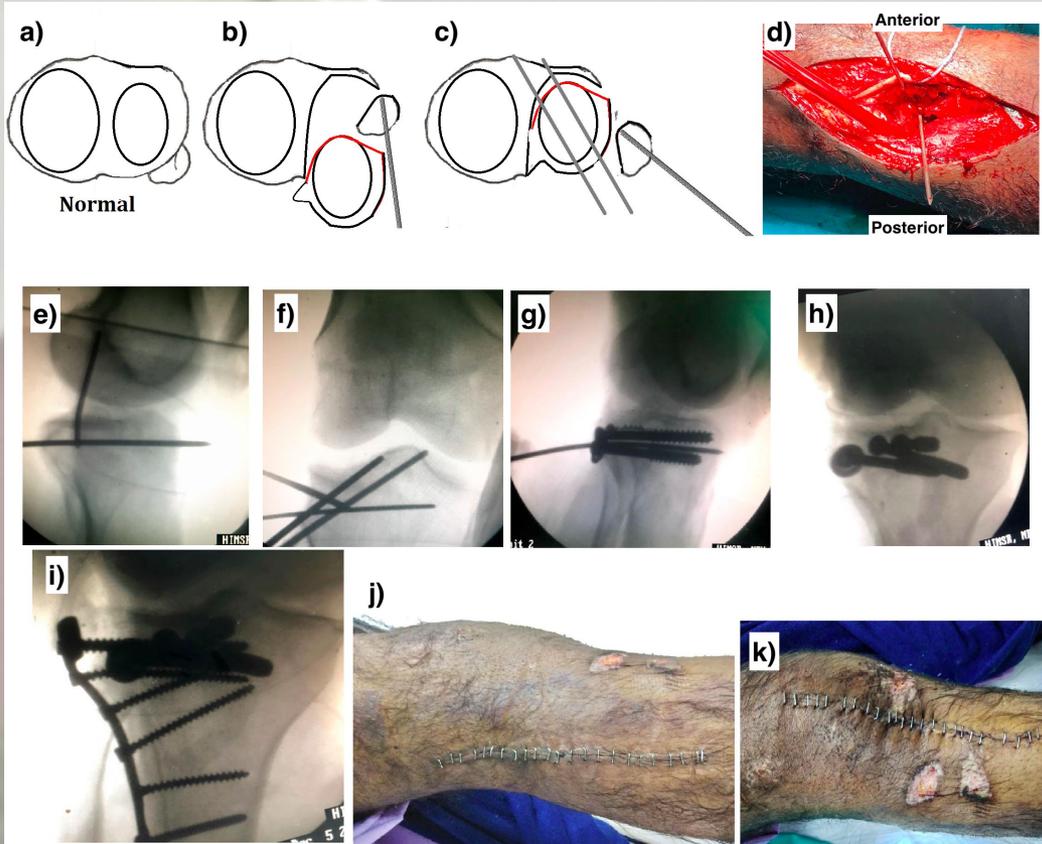


Methods

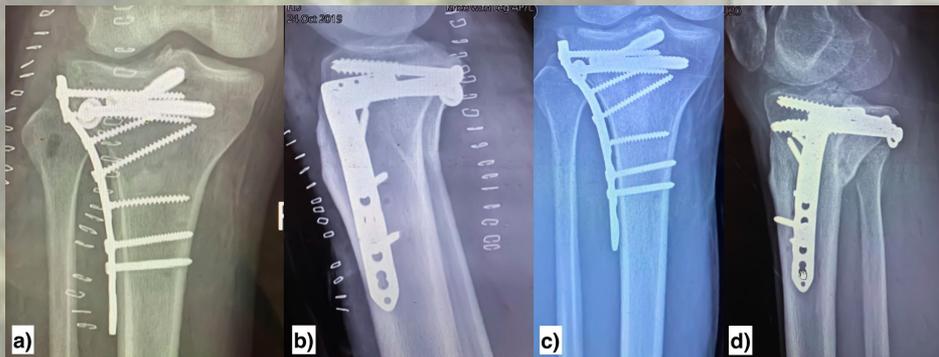
- 32-year-old male, RTA, Hyperextension+axial+valgus
- Systemic - NA, Local - Tibial plateau fracture, ecchymosis, reduced pulse
- 20-30 flexion - normal pulse
- USG doppler - intact vessels
- Associated post trauma CPN palsy
- fracture of whole articular lateral condyle with intact anterior rim
- Exiting fracture line - posterior column
- Associated PTFJ disruption
- Compared fracture 3D CT to normal CT for Preop planning



Results



- a) Posterolateral approach
- b) Varus stress- retracting the capsule back
- c) 2mm Kirschner - fibular head - joystick
- d) Nerve protected
- e) Distal extent of the fracture spike - close to popliteal bifurcation - screw only fixation
- f) Tibiofibular ligaments assumed disrupted



LCL was intact, anterior exposure - anterolateral plate stabilization
Fibular head stable and fixation stable with ROM, No instability

Discussion and Conclusions

- Isolated posterior dislocation of the fractured condyle, either medial or lateral condyle has not been reported
- Fractured lateral condyle abutting on the posterior aspect of the lateral femoral condyle making it difficult to reduce
- Fibular head got crumpled inside the fracture cavity that represented the original space for the lateral femoral condyle
- Fibular osteotomy approach not used - Risk of further damaging injured tibiofibular ligaments
- Difficult to confirm exact mechanism in dislocated condyle
- Rapid vascular assessment important - high suspicion index
- Follow up - 6 months, fractured healed, no instability
- **Conclusion: Careful CT based preoperative planning and maneuvering of the fibular head to reduce the fractures lateral condyle and judicious posterior and anterolateral fixation**