

LAQs on Fracture Proximal Tibia (Tibial Plateau Fractures) with Special Emphasis on Neurovascular Injuries and Compartment Syndrome

1. A 35-year-old man presents with pain, swelling and inability to bear weight after a road traffic accident. X-ray shows a lateral tibial plateau fracture.

Questions:

- Classify proximal tibial fractures.
 - Describe clinical examination of the knee.
 - Discuss radiological investigations.
 - Outline management.
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2. A 28-year-old man presents with severe pain and deformity around the knee following a motorcycle accident. Dorsalis pedis and posterior tibial pulses are absent.

Questions:

- Describe the neurovascular examination of the limb.
 - Discuss the clinical features of popliteal artery injury.
 - Explain emergency management.
 - Outline definitive treatment.
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3. A patient with a proximal tibial fracture develops severe pain, tense swelling and pain on passive extension of the toes.

Questions:

- Define compartment syndrome.
 - Describe the clinical features and the "6 Ps".
 - Explain the role of intracompartmental pressure measurement.
 - Discuss emergency management and fasciotomy.
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4. A 40-year-old patient sustains a high-velocity injury and presents with gross swelling around the knee.

Questions:

Classify tibial plateau fractures according to Schatzker classification.

Describe soft-tissue assessment.

Discuss emergency management.

Outline definitive treatment.

5. A motorcyclist presents with an open fracture involving the proximal tibia and contamination of the wound.

Questions:

Classify open fractures.

Explain emergency management.

Discuss definitive fixation methods.

Mention complications.

6. A patient presents with inability to dorsiflex the foot after a proximal tibial fracture.

Questions:

Describe examination of the common peroneal nerve.

Discuss clinical features of common peroneal nerve injury.

Explain investigations.

Outline management.

7. A football player sustains a proximal tibial fracture and complains of knee instability.

Questions:

Describe the mechanism of injury.

Explain ligamentous examination.

Discuss investigations.

Outline management.

8. A 70-year-old osteoporotic woman falls in the bathroom and sustains a proximal tibial fracture.

Questions:

Explain the mechanism of injury.

Discuss investigations.

Outline management options.

Explain rehabilitation.

9. After reduction of a proximal tibial fracture, the patient develops increasing pain and absent distal pulses.

Questions:

How will you assess distal vascularity?

Discuss causes of vascular compromise.

Explain emergency management.

Outline definitive treatment.

10. Six hours after fixation of a proximal tibial fracture, the patient develops severe pain and paresthesia.

Questions:

Discuss the causes of compartment syndrome.

Describe clinical examination.

Explain pressure measurement.

Outline management.

11. A patient presents with metaphyseal-diaphyseal dissociation following a high-speed collision.

Questions:

Classify the fracture.

Discuss associated soft-tissue injuries.

Explain emergency management.

Outline definitive fixation.

12. Forty-eight hours after injury, a patient develops breathlessness, confusion and petechial rash.

Questions:

Define fat embolism syndrome.

Describe the clinical features.

Explain emergency management.

Mention preventive measures.

13. A patient presents with head injury, chest injury and proximal tibial fracture after a road traffic accident.

Questions:

Describe ATLS protocol.

Explain damage-control orthopaedics.

Discuss emergency management.

Outline definitive fracture treatment.

14 A patient with a lateral tibial plateau fracture complains of locking of the knee.

Questions:

Explain the mechanism of meniscal injury.

Discuss clinical examination.

Mention investigations.

Outline management.

15. A patient presents 24 hours after injury with severe pain, sensory loss and paralysis of the foot.

Questions:

Define compartment syndrome.

Describe the clinical features.

Explain the consequences of delayed diagnosis.

Outline management.

16. A patient with severe soft-tissue injury undergoes temporary external fixation.

Questions:

Mention indications for external fixation.

Discuss advantages and disadvantages.

Explain pin-site care.

Outline definitive management.

17. A patient presents six months after injury with varus deformity of the knee.

Questions:

Define malunion.

Explain causes.

Discuss investigations.

Outline management.

18. A patient develops severe restriction of knee movements after surgery.

Questions:

Discuss causes.

Explain preventive measures.

Outline rehabilitation.

Mention treatment options.

19. A patient presents with persistent pain and instability six months after fracture.

Questions:

Define non-union.

Mention causes.

Discuss investigations.

Outline management.

20. A patient presents two weeks after injury with foot drop and absent distal pulses.

Questions:

Describe neurovascular examination.

Explain investigations.

Discuss management.

Mention complications.
