

## RARE CASE OF TIBIAL PILON FRACTURE WITH COMPLETE LATERAL COLLATERAL LIGAMENT RUPTURE

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**Introduction:** Pilon fractures are intraarticular distal tibia fractures with varying complexity which can be associated with or without fibula fracture. Here, we present a rare case of pilon fracture without fibula fracture but with complete rupture of the lateral collateral ligament (LCL) complex.

**Discussion:** A 62-year-old man, newly diagnosed diabetic, presented after a fall from height with injuries to his spine and bilateral lower limb. Radiographs showed a L2 compression fracture, left calcaneum fracture and right distal tibia intraarticular fracture. CT scan further showed large vertical medial malleolus fragment with impaction of the anteromedial articular surface and a large posterior malleolus fragment. Patient underwent initial cross ankle external fixation to rest the soft tissues and subsequently internal fixation after 1 week. The posterior malleolus was fixed with 3 lag screws via a posterolateral approach then the medial malleolus was fixed with a medial locking plate via an anteromedial approach. Intraoperatively, there was significant talar tilt and shift despite fixation of the fractures consistent with rupture of the LCL complex. Cross ankle external fixator was reapplied to restore the ankle joint stability. There is scarcity of literature regarding pilon fractures with ligament rupture and thus lack of consensus regarding management. One need to be vigilant of ligamentous injury in this type of fracture without associated fibula fracture. Significant gapping between the lateral aspect talus and distal fibula on radiographs may be indicative of LCL rupture and a persistent ankle instability despite fracture fixation. Treatment for acute LCL ruptures maybe external immobilization or open repair with sutures, provided the ankle mortise can be restored. In this case, we chose external fixator immobilization to minimize further soft tissue insult especially in an elderly man with diabetes.

**Conclusion:** It is important to be cognizant of acute LCL ruptures with ankle instability in pilon fractures without fibula fracture.