

Irreducible Ankle Fracture Dislocation: Who Was the Culprit?

^{1,2}Shunmugam DK; ¹Daud ME; ¹Soosay IAA; ¹Ramalingam,K; ²Raymond YDK

¹Orthopaedic Department, Hospital Tuanku Jaafar Seremban, Negeri Sembilan, Malaysia.

²Orthopaedic Department, University Putra Malaysia, Serdang, Selangor.

INTRODUCTION:

With ankle fracture dislocations, immediate closed reduction helps with soft tissue recovery. Lauge Hansen's is useful to describe and reverse the mechanism of injury to reduce the fracture dislocation [1]. We share our experience and reason for an irreducible ankle fracture by closed methods following fall from height.

REPORT:

22-year gentleman presented to casualty with left ankle pain, swelling and gross deformity following fall from height. Physical examination reveals no open wounds with bony prominence over medial ankle (Figure 1). His neurovascular status was intact. Plain radiograph shows anteromedial left ankle dislocation with lateral malleolus fracture.

Following standard protocol sedation, closed reduction of the left ankle was attempted with flexion of knee at 90 degrees, longitudinal tractional and lateral translational force with posteriorly directed counter pressure. The ankle remained dislocated as there was a block to the reduction. Post reduction radiograph showed persistent anteromedial ankle dislocation. We proceeded with open exploration and reduction of ankle joint and fracture stabilization under regional anesthesia. The fibula was disengaged from its syndesmosis button-hole and fixed with a small dynamic compression plate. However, we still failed to reduce ankle joint and keep it stable. Incision was extended to expose medial ankle joint. Hoffman spike retractor placed medially and we found the FHL tendon entrapment anteriorly (Figure 2). DCP was removed to help relocation of FHL. Subsequently, ankle mortise was restored. Plating of lateral malleolus was performed and 2 Kirschner wire inserted from calcaneum to distal tibia performed. This was done as there was no implants available for ligamentous reconstruction.



Figure 1 : Left ankle fracture dislocation



Figure 2 : FHL entrapment

Final intraoperative image intensifier showed restoration of ankle mortise. Patient was protected with boot slab and subsequently discharged well for ligamentous reconstruction later.

CONCLUSION:

Surgeons should be aware of possibility of tendon entrapment which hinder ankle joint reduction via closed or open method.

REFERENCES:

Gardner MJ et al, *JOrthop Trauma*.(2006) 20(4):267-72.