Ankle Dislocation with Maisonneuve Fracture: A Case Report

Tracz A*, Powers ME: Marist College, Poughkeepsie, New York, University of Maryland, Baltimore County, Baltimore, Maryland*

**Background:** We present the case of an ankle dislocation complicated by a unique proximal fibula fracture in a high school football athlete. A healthy sixteen-year-old male running back suffered a direct blow to the lower extremity while being tackled. The tackler landed on the posterior aspect of the patient’s left ankle and foot, causing the lower leg to internally rotate while the foot remained in a fixed position on the ground. Upon examination, a gross ankle deformity was noted as the foot remained in an externally rotated and pronated position. Distal circulation, sensation, and motor function were present however the patient was experiencing a significant amount of pain. The team physician diagnosed the injury on the field as a talocrural dislocation and performed a closed reduction at that time. Distal circulation, sensation, and motor function remained present after reduction however significant swelling was present. Nothing else was remarkable at that time. The ankle was then immobilized with a rigid splint and the patient was referred to the emergency department for further diagnostic testing. **Differential Diagnosis:** Talus fracture, tibia fracture, Weber or other fibula fracture, Pott's or Dupuyten’s fracture, lateral collateral ligament sprain, deltoid ligament sprain, syndesmosis sprain.

**Treatment:** The ankle was reduced on the field and immobilized. At the emergency department, radiographs confirmed that the patient had suffered an anterior talocrural dislocation and revealed an associated fracture of the medial malleolus. A fracture at the proximal fibular head was also noted. The distal tibiofibular joint was stabilized with two screws inserted through the distal fibula extending through the syndesmosis and into the tibia. The tibial malleolar fracture was fixated with two more screw inserted directly into the medial malleolus from the distal end. Following surgery, the patient was placed non-weightbearing in a short leg cast for eight weeks followed by a program of therapeutic exercise to restore range of motion, strength, and neuromuscular control. **Uniqueness:** While distal fractures associated with ankle dislocations are common, proximal fractures are not. Maisonneuve fractures of the proximal fibula are associated with disruption of the tibiofibular syndesmosis, but are often missed during physical and radiographic exam. While most Maisonneuve fractures occur distal to the head of the fibula, the present injury occurred at the fibular head itself. **Conclusions:** Despite the location of the Maisonneuve fracture, surgical management of the injury was not different than if it had been it its typical location. The presence of a Maisonneuve fracture implies ligamentous ankle injury with potential instability not always apparent on static radiographs. It is imperative that clinicians are familiar with this injury and its clinical and radiographic presentation. If not managed properly, permanent disability and dysfunction could result. Early surgical intervention is recommended due to the potential instability associated with such an injury. In the present case, surgery produced satisfactory results, as athlete was able to return to play the following season. **Key Words:** Maisonneuve fracture, ankle, dislocation, screw fixation. Word count: 486