

Rare Case Of An Entrapped Distal Fibula Fracture Within Tibiotalar Joint.

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INTRODUCTION:

Ankle fracture is a common type of fracture and is increasing in frequency. To our knowledge that are no previous documented literature of an ankle fracture subluxation whereby the fractured distal fibula got lodged within the tibiotalar joint.

CASE REPORT:

35 year old, gentleman, presented with left ankle pain and swelling after a motor vehicle accident. Helmeted motorcyclist, lost control after seizure. Mechanism of injury unknown. Left lower limb examination showed deformed and swollen ankle with tenderness over the distal fibula with reduced range of movement. Neurovascular was intact.

Imaging showed distal fibula fracture and impinged between the tibia and talus causing tibiotalar subluxation. CT brain showed subarachnoid haemorrhage.

Closed manual reduction(CMR) was attempted under hematoma block as sedation was contraindicated, but was unsuccessful, thus patient underwent emergency surgery for open reduction, plating of fibula and syndesmotic screw fixation. Intraoperative findings revealed left distal fibula was fractured and lodged within the tibiotalar joint. Check Xray showed left fibula and ankle joint were reduced.

DISCUSSION:

Lauge-Hansen classification system is based on a rotational mechanism. Our fracture pattern can't be explained by Lauge Hansen classification, but closely resembles that produced by a supination adduction mechanism(1). Another theory is that 2 mechanisms happening simultaneously. Direct trauma causing fracture and supination of the ankle joint causing the tibiotalar joint to open up thus opening up the space for the fibula to impact into during the direct trauma.

BOAST guidelines recommends reduction and splinting performed urgently for clinically deformed ankles and radiographs obtained before reduction unless it causes delay(2). Hematoma blocks show similar levels of

distress during CMR, compared to sedation with fewer adverse effects and less recovery time(3).

CONCLUSION:

Lauge-Hansen classification cannot explain the mechanism for all the fracture types and there may be more than one mechanism. All ankle fracture subluxation/dislocation should be reduced urgently and hematoma block is effective.



REFERENCES:

- 1) Lauge-Hansen. Ligamentous ankle fractures:diagnosis &treatment.
- 2) BOAST guidelines:The management of ankle fractures.2016.
- 3) Randomized comparison hematoma block versus sedation.Luhmann et al.2006