Lateral Process of Talus Fracture

Moderate energy injury—treatment dictated by articular congruity.

Overview

- Classic mechanism is inversion with dorsiflexion and axial load ("Snowboarder's fracture")
- Frequently missed on plain radiographs so high index of suspicion for patients with severe pain and exam consistent with "ankle sprain"

Physical Exam

- Skin intact? Amount of soft tissue swelling?
- Distal neurovascular exam (Appendix B)

Diagnosis

Imaging

- AP and Lateral XR of foot (lateral process best viewed on AP image) (Fig. 1)
- CT scan can help with diagnosis when clinical concern but X-rays negative. Also helpful in determining ultimate treatment (operative vs. nonoperative) based on fracture displacement.

M.C. Makhni et al. (eds.), *Orthopedic Emergencies*,
DOI 10.1007/978-3-319-31524-9_82

Classification

Based on anatomic location

- Type 1: Tip of lateral process (doesn't involve articular surface)
- Type 2: Lateral process involves subtalar or tibiotalar joint
- Type 3: comminuted lateral process

Treatment Plan

Decision for operative vs. nonoperative treatment based on fracture displacement/comminution.

Nonoperative

Indication: minimally displaced fractures (<2 mm).
Treatment: immobilization in a short leg cast (Appendix B: Short leg cast) 4–6 weeks, initially NWB

Fig. 1 Lateral process of talus fracture

Operative

Indications: fractures with >2 mm displacement or severe comminution
Treatment:

Displaced fractures—ORIF
Severely comminuted fractures—lateral process fragment excision

References

Tucker DJ, Feder JM, Boylan JP. Fractures of the lateral process of the talus: two case reports and a comprehensive literature review. Foot Ankle Int. 1998;19(9):641–6.
Vlahovich AT, Mehin R, O'Brien PJ. An unusual fracture of the talus in a snowboarder. J Orthop Trauma. 2005;19(7):498–500.