Comminuted fracture of the entire posterior process of the talus treated with excision via hindfoot ankle endoscopy: A case report and literature review

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Our disclosures are in the Final AOFAS Mobile App.

We have no potential conflicts with this presentation.
Introduction

Fractures of the posterior process of the talus are rare. A medial subtalar dislocation has a high rate of associated injuries including posterior process fractures. Two popular mechanisms of injury have been reported:

1) Dorsiflexion-pronation → posterior deltoid avulses the medial tubercle (Cedell fracture)
2) Forceful plantarflexion → isolated lateral tubercle or entire posterior process fracture
Radiographs often fail to show the fracture.
Ebraheem recommended oblique radiographs at 45° and 70° of external rotation for suspected posterior talar process fractures\(^2\).
CT is recommended for suspected posterior process fractures and for subtalar dislocations\(^1\).
Introduction

The mainstay of treatment has been open excision or open reduction internal fixation. There is only one case report to our knowledge that has used hindfoot endoscopy to treat a fracture of the entire posterior process of the talus\(^3\).
34 year old male fell 10 feet from a ladder and presented with a right medial subtalar dislocation.

Post-reduction radiographs and CT was obtained and showed the comminuted fracture.
Case Report

We discussed nonoperative and operative treatment.
The patient wanted to pursue operative intervention but his soft tissues were still edematous and ecchymotic.
We decided to perform a posterior hindfoot endoscopy with fragment excision to minimize morbidity.
Case Report

Intraoperative Photos

Fragment Photos
Case Report

The patient was kept non-weightbearing for 6 weeks secondary to ORIF of an associated 5\textsuperscript{th} MT base fracture.

He returned to work as a firefighter full-time 3 months after the endoscopy. At the 8 month visit he was doing great with no pain or swelling in the hindfoot.
Posterior ankle endoscopy has gain popularity over the past decade.
In 2000, van Dijk described the 2 portal endoscopic approach
4.
Hindfoot endoscopy is being used to treat many various pathologies of the hindfoot.
Benefits of hindfoot endoscopy are minimally invasive approach, excellent visualization, decreased soft tissue morbidity and low complication rates
5.
Discussion

We were able to attain a good outcome both radiographically and functionally for the patient. Hindfoot endoscopy gave us excellent visualization of the pathology and minimized the morbidity associated with open procedures.

van Dijk and van Bergen; JAAOS 2008
References


