Medial Tubercle Fracture of the Talus
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History
15 year old with acute medial ankle pain related to dancing.

Diagnosis
Medial Tubercle Fracture of the Talus

Discussion
The talus has 3 "processes" that may be injured. The lateral process is a wide wedge shaped prominence that emanates from the body of the talus, contains 2 articular facets, and serves as the attachment of the lateral talocalcaneal ligament. The posterior process contains the medial and lateral tubercles. The flexor hallucis longus tendon resides in the groove created by these 2 tubercles. The lateral tubercle serves as attachment for the bifurcate talocalcaneal ligament and the posterior talofibular ligament. The medial tubercle receives the talotibial portion of the deltoid ligament. The anterior process extends toward the navicular from the anterior-superior body of the talus. The bifurcate ligaments connect the anterior process to the cuboid and navicular bones. The extensor digitorum brevis takes partial origin from the anterior process. The medial tubercle of the posterior process may be injured when the foot is suddenly forced into dorsiflexion and pronation. This places the posterior tibiotalar portion of the deltoid ligament under tension. Maximum plantar flexion can cause a nutcracker like compression injury between the posterior malleolus and posterior calcaneus. These injuries are common in athletes, especially runners, dancers and soccer players but can also be seen in complex high-energy hindfoot injuries from falls and motor vehicle accidents. Posterior process fractures can be difficult to diagnose; most are often initially diagnosed as "sprain" and treated conservatively. Open reduction may be indicated if a significant portion of the subtalar joint is involved to prevent subtalar arthritis.

Findings
CR-Linear cortical density immediated adjacent to the medial talus.
CT-Nondisplaced cortical avulsion fracture of the medial talar tubercle.

Reference
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