Fracture of the Lateral Process of the Talus in Snowboarders

Reference:

Scientific Literature Review

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Podiatric Relevance:
Talus fractures reportedly make up 3-5% of foot fractures. Talar fractures can be difficult to identify clinically and radiographically. Lateral process fractures often go misdiagnosed and can lead to long lasting ankle pain if not treated correctly and in a timely manner.

Methods:
26 snowboarders were selected that sustained a unilateral fracture of the lateral process of the talus identified using Broden's and reverse Broden's views on radiographical evaluation. Of the 26 identified patients only 10 patients were treated conservatively with immobilization and 16 underwent open reduction and internal fixation. The lead foot was the most affected in 16 of the 26 patients. The surgical approach was made from distal fibula to anterior process of the calcaneus down through the anterior talofibular and calcaneofibular ligaments. Two 2.0mm AO titanium lag screws were used to fixate the lateral process. If multiple fragments were noted then a 2.0mm AO titanium T-plate was used as a buttress.

Results:
Of the 16 surgical patients 13(81%) had their surgery immediately, 2(13%) at 15 days and 5 months due to delayed diagnosis and one at 8 months due to malunion with conservative therapy. 14 (88%) had associated hindfoot injuries including 11(69%) calcaneal cartilage lesions, 10 (63%) ligamentous or tendon injuries, 5 (31%) dislocations of the peroneal tendon and 1 (6%) was a rupture of the anterior fibulo-talar ligament. Surgical patients had an average AOFAS score of 93 after a full recovery. And non-surgical patient's average was 98. Only one patient had moderate hind foot restriction and no patient required a walking aid or brace. The mean time to achieve maximum function was six months.

Conclusions:
In conclusion, identification of lateral process fractures of the talus requires accurate and timely evaluation. This study shows non-displaced fractures do heal well with conservative therapy. Also, this study shows ORIF of displaced lateral process talar fractures have favorable outcomes and should be performed when diagnosed and deemed necessary.