Floating metatarsal associated with comminuted calcaneocuboid joint fracture and turf toe

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ABSTRACT

Introduction: The term “floating metatarsal” refers to a rare injury pattern characterized by metatarsal dislocation in both the Lisfranc and metatarsophalangeal joints. The term “turf toe” refers to the rupture of the plantar capsular-ligamentous complex of the first metatarsophalangeal joint.

Objective: To report a rare case of floating metatarsal associated with turf toe and comminuted calcaneocuboid joint fracture causing a midfoot abduction deformity.

Method: To report the case of a patient who suffered a motorcycle accident and progressed with this rare combination of associated injuries.

Results: The patient underwent surgical cleaning, reconstruction of the plantar capsular-ligamentous injury and reduction with Kirschner wire fixation of the first metatarsal and calcaneal fracture, with a local graft for lateral column and calcaneocuboid joint lengthening. The patient progressed well in the 18-month follow-up; fracture union and good joint stability with a slight limitation in range of motion were achieved.

Discussion: Floating metatarsal is an injury poorly described in the literature, and its association with turf toe is due to trauma with metatarsophalangeal hyperextension. The patient may postoperatively develop postraumatically acquired hallux rigidus and hallux valgus.

Conclusion: The identification of these injuries and a good clinical evaluation are crucial for adequate treatment and the prevention of possible complications.

Keywords: Fracture; Joint dislocation; Surgery.