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Tibio-Talar Dislocation: A Brief Review of Literature

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1. Abstract

Tibiotalar dislocation without concomitant fracture in the surrounding bones is a rare injury. Fahey and Murphy classified this lesion into 5 subtypes based on direction: posterior, anterior, lateral or superior combined. Only 4 cases have been reported in literature. Here, I document a brief review of literature. In this review, there are not figures and outcomes.

2. Key Words: Ankle dislocation; Laxity; Tibiotalar

3. Introduction

Tibiotalar dislocation without associated fractures of the malleoli is an unusual traumatic injury, sporadically reported as isolated cases [1-4] or as small series [5-7] in literature. Fahey and Murphy [8] classified this lesion into 5 subtypes based on direction: posterior, anterior, medial, lateral or superior combined. Anterior tibio-talar dislocation without associated fractures is a rare injury, and, to the best of my knowledge, only 4 cases have been reported in English-language medical literature to date [7,9,10]. Here, I document a review of literature.

3.1. Epidemiology, Mechanism of Injury, Diagnosis and Treatment: It is interesting that 1 of 4 previously reported [7] pure anterior ankle dislocations also involved who had sustained multiple ipsilateral lower extremity injuries, and it was not discovered until the patient began to complain of ankle pain after 2 separated for patellectomy and intramedullary nailing of the femoral shaft. In that particular patient, the ankle dislocation was easily reduced closed and remained stable after immobilization. Tibiotalar dislocation without associated fracture of the malleoli is a rare injury because the bones are relatively weaker than the surrounding ligaments, and so a fracture will occur rather than a dislocation [11]. Most of the reported cases have been of the posterior type, more than half have been open injuries. The largest series of pure ankle dislocations in the literature are those of Wilson et al who reported on 16 cases [10] and Tooley et al who reported on 19 cases [12]. Both of these reports involved patients from others institutions, and both noted relatively good long-term follow-up results from injury. This has also been the case with other smaller series and isolated reports that have appeared occasionally in literature. On the other hand, severe complications, including post-traumatic arthrosis [7,12] and amputation [6] have been reported in a minority of the patient who sustain the injury. Mechanisms of pure ankle dislocation have been also considered in the literature [6]. In this regard, ankle plantarflexion due to relative narrowing of the posterior portion of the body of the talus, compared with the anterior portion and the ligamentous stretch, is considered the result of a posterior-directed force on the plantarflexed and inverted ankle, and it is likely this injury is most common because of the tendency of the foot to land with the ankle in plantarflexion and inversion in a fall from height.

Ankle dislocations are caused primarily by motor vehicle accidents, with the second most common cause being sports trauma [13]. Generalized ligamentous laxity, weakness of the peroneal muscles, hypoplasia of medial malleolus, and repeated ankle sprains have been proposed as predisposing factors [6]. In radiographic examination, it is been that the experience of other authors that this injury rarely leads to avascular necrosis [12].

I believe that open reduction and internal fixation would have been the best of choice for treatment of ankle dislocations without associated fractures of malleoli.

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