

Subtalar dislocation in a basketball player

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Abstract

We report a medial subtalar dislocation, which was treated with closed reduction and cast for 6 weeks. At follow up 40 months later, there was a normal range of motion and no pain.

Résumé

Nous rapportons une luxation sous-talienne qui a été traitée avec réduction fermée et plâtre pour 6 semaines. Au recul de 40 mois, il y avait une mobilité normale et aucune douleur.

Case-Report

A 25 year old male university student referred to our emergency service in November 1997 with a history of an injury to his right ankle while playing basketball. During a struggle to catch the ball in front of the basket, his right foot was inverted while he was landing after a jump. On physical examination an inversion deformity of his right foot with massive swelling and a bony protrusion matching the talar head was covered by a skin abrasion was encountered. Radiological evaluation revealed the diagnosis of right medial subtalar dislocation confirming the physical examination (Figure 1) There was no history of previous dislocation or serious injury to either ankles or other joints. Reduction was easily performed under general anesthesia with abduction-eversion manipulation of the foot with the longitudinal traction through the heel and with dorsiflexion of right ankle. The extremity was immobilised using a short leg cast for 6 weeks. At the end of the 6th month he was allowed to play basketball. After 40 months, there were no limitations in the range of motion and no pain; arthritic changes were not seen in the subtalar region on the radiologic evaluation (Figure 2)

Discussion

Subtalar dislocation of the foot is an uncommon injury [2-6,8,9]. According to the severity of the influencing force, the injury can be open, irreducible, and recurrent [2-4,8,9]. Additional bone and soft tissue injuries can take place [2,4]. In our case a closed medial subtalar dislocation injury occurred while playing basketball. The medial dislocations of the subtalar and talonavicular joints take place by an inversion stress of the foot and the head of the talus moving laterally forming a bony protrusion [1,2]. With forceful inversion of the foot, the sustentaculum tali acts as a fulcrum for the posterior part of the talar body, causing the dislocation. First a dislocation of the talonavicular joint happens with a rotational subluxation of the talocalcaneal joint. Later on with continued force, a complete subtalar dislocation occurs [1]. In our case injury took place while landing on the ground after a jumping in an violent forced inversion with planter flexion of the forefoot during a basketball game. The reduction of the subtalar dislocations can be managed by closed or open surgical means. If the closed reduction is unsuccessful, when there are situations preventing reduction, in open injuries and when additional fractures are present open reduction techniques are used [2,5,7,8]. We, as other authors [2,3,6,7,9] under general anesthesia managed the reduction of the dislocation by the eversion and abduction of the foot and the dorsiflexion of the ankle. Some of the authors reported that usually these injuries did result in some subtalar stiffness [2,3,9] and some limitation of subtalar joint motion [1-4,7,9]. In the radiological examination after 40 months from the injury there was no avascular necrosis or subtalar arthrosis findings in our case. He was able to do all of his daily and sportive activities as before the injury.

Legends



Figure 1: (a) AP and (b) LAT radiographs of the right medial subtalar dislocation.

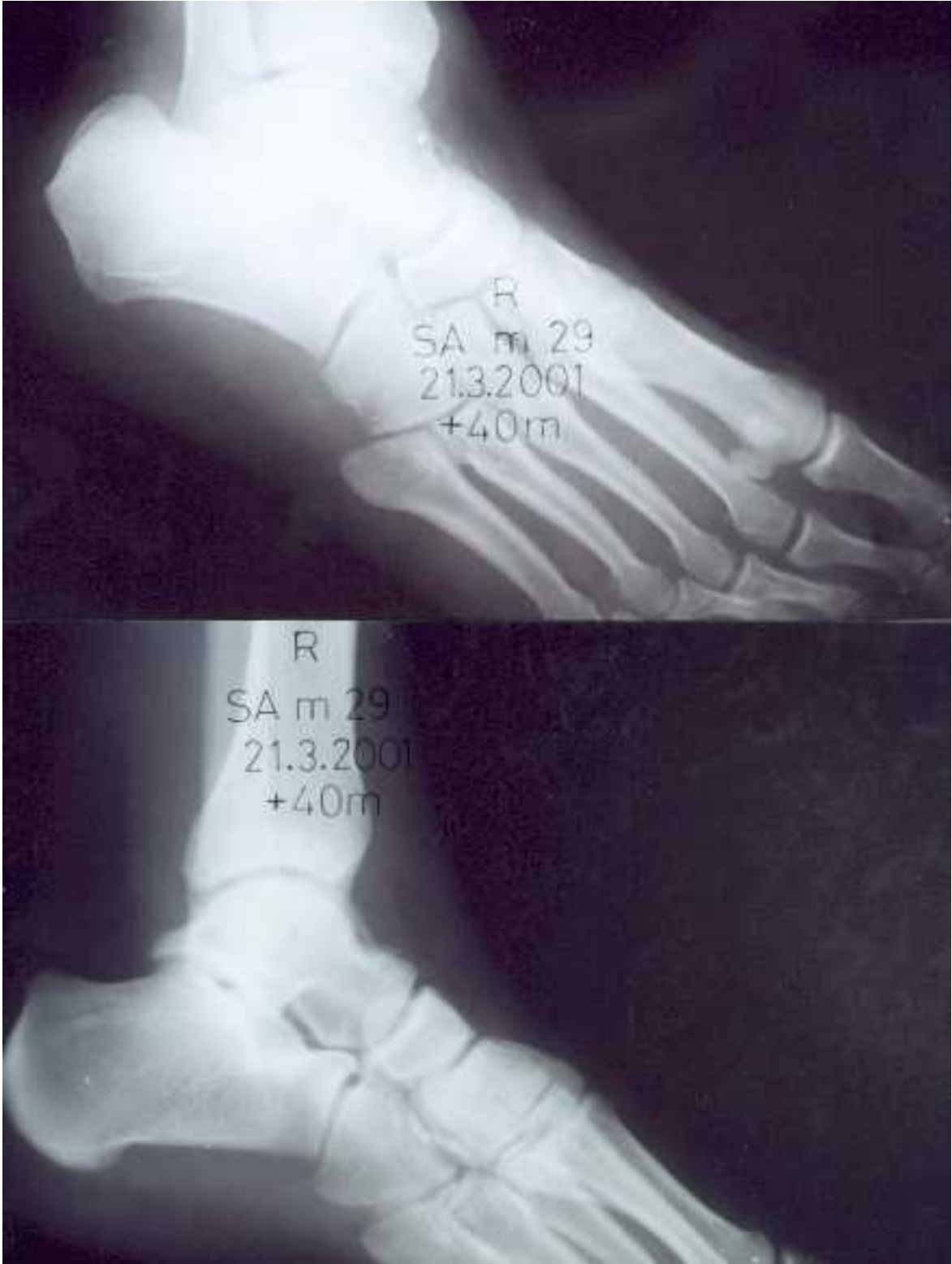


Figure 2: (a) Oblique and (b) LAT radiographs at 40 months follow-up.

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