



## Unusual tennis injuries: boxer's fracture and medial subtalar dislocation: report of two cases

Nadir görülen tenis yaralanmaları: Boksör kırığı ve mediyal subtalar çıkık: İki olgu sunumu

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In this article, we describe two cases of unusual tennis injuries. One of them was a 48-year-old elite tennis player. He had boxer's fracture due to fall during a tennis match. The other one was a 22-year-old beginner tennis player. He had talonavicular and subtalar dislocations due to fall during tennis match caused by shoes inappropriate for tennis. Patients were treated conservatively without any complications.

*Key words:* Boxers' fracture; injury; subtalar dislocation; tennis.

Bu yazıda, nadir görülen iki tenis yaralanması olgusu sunuyoruz. Bunlardan biri 48 yaşında seçkin bir tenis oyuncusu idi. Tenis maçı sırasında düşmeye bağlı boksör kırığı oluşmuştu. Diğeri ise 22 yaşında acemi bir tenisçi idi. Tenis maçı sırasında giydiği ayakkabının tenis için uygun olmaması nedeni ile düşmeye bağlı talonaviküler ve subtalar çıkıklar oluşmuştu. Hastalar komplikasyon olmaksızın konservatif olarak tedavi edildi.

*Anahtar sözcükler:* Boksör kırığı; yaralanma; subtalar çıkık; tenis.

Tennis injuries are common. In this article, we described two cases of unusual tennis injuries: a boxer's fracture, and medial subtalar dislocation.

### CASE REPORT

*Case 1-* A 22-year-old beginner tennis player had pain and swelling in the left ankle due to a fall during a tennis match. He was wearing the wrong type of shoes in the match. There was no neurovascular compromise in the left foot. The radiograms revealed dislocations of the talonavicular and subtalar joints (Figure 1). Immediate closed reduction was done, and the foot was immobilized using a below-knee cast for six weeks.

The radiograms (Figure 2) and computed tomographs (Figure 3) of the talonavicular and subtalar joints showed proper reduction without fracture. Following rehabilitation, the patient healed without any complication. The patient was warned about possible late complications and not to start to play

tennis again without having necessary equipment and knowledge.

*Case 2-* A 48-year-old elite tennis player had pain in the metacarpophalangeal joint of the right hand due to a fall during a tennis match. Radiograms revealed a boxer's fracture (Figure 4). After three weeks immobilization in a cast and another three weeks immobilization in a brace, the fracture healed without any complication. He had two weeks of rehabilitation and was permitted to play tennis again in two months.

### DISCUSSION

There are articles in the literature reporting unusual sacral and bilateral ischial fractures in elite tennis players, and an ulnar stress fracture of the nondominant arm in a tennis player using a two-handed backhand.<sup>[1-3]</sup> We described two cases that had unusual tennis injuries: a boxer's fracture, and medial subtalar dislocation.



**Figure 1.** Radiograms showing talonavicular and medial subtalar dislocations.



**Figure 2.** Radiograms showing talonavicular and subtalar joints after reduction and immobilization six weeks.



**Figure 3.** Computed tomographies showing talonavicular and subtalar joints after reduction.



**Figure 4.** Radiograms showing boxer's fracture in cast, and healed fracture six weeks later.

Subtalar dislocation involves the talocalcaneal and talonavicular joints, with the tibiotalar and calcaneocuboid joints remaining intact.<sup>[4,5]</sup> There are four types of subtalar dislocation: medial, lateral, anterior and posterior. Medial dislocation is the most common type. These injuries occur due to high-energy trauma. Closed reduction and immobilization is a common application for the treatment.

Various factors adversely affect outcome including type of dislocation (lateral/medial, open/closed), severity of the injury and associated fractures.<sup>[6]</sup> Immediate treatment is necessary to reduce the incidence of early soft-tissue and vascular complications and poor long-term outcomes due to post-traumatic arthritis, talus necrosis and subtalar joint stiffness.

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