Ankle Deformity Associated with Torture: A Case Report

İşkenceye Bağlı Ayak Bileği Deformitesi: Olgu Sunumu

Ayak Bileği Deformitesi / Ankle Deformity

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Özet

Falaka, akut dönemde ayaklarda cilt altında ve kompartmanlarda ödem ve hemorajiye neden olmaktadır. Şişlik ve ve ağrı dizlere kadar yayılabilir ve enflamatuar süreç bir kaç hafta sonrasında çözülüp yerini, ayak bileğinde elastisite kaybına, ayak ve ayak bileğinde dirençli ağrıya bırakır. Falakadan yıllar sonra ayaklarda ve bacaklarda kronik ağrı yaygındır ancak ileri derecede deformite oluşması nadirdir. Biz bu olgu sunumunda Suriye'de iç savaşta falaka uygulanan bir savaş mağdurunun işkenceye bağlı gelişen ayak bileği deformitesini ve tedavi seçeneği olarak artrodez kullanımını sunacağız.

Anahtar Kelimeler

İşkence; Falaka; Ayak Bileği; Deformite

Abstract

Falanga causes oedema and haemorrhaging subcutaneously and in compartments of the feet in the acute phase. The inflammatory process leaves a loss of elasticity in the ankle and resistant pain in the foot and ankle. Chronic pain in the feet and legs is common years after falanga but an advanced degree of deformity is rare. The case is presented here of ankle deformity which developed associated with torture applied by falanga in the Syrian civil war, and which was treated by tibiocalcaneal arthrodesis.

Keywords

Torture; Falanga; Ankle; Deformity

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Introduction

Falanga is a torture method involving systematically repeated application of blunt trauma to the soles of the feet with rifle butts, wooden poles, iron rods, cables, or sticks. In the acute phase, falanga causes oedema and haemmorrhage in the compartments and below the skin of the feet. Swelling and pain may spread as far as the knees and a few weeks later, rather than being resolved, the inflammatory process leaves a loss of elasticity in the ankle and persistent pain in the foot and ankle [1].

As the most frequently encountered problem following falanga is chronic pain, treatment strategies concentrate on pain management [1-4]. These treatments include shoe modifications such as various orthoses, several forms of physical therapy and methods such as Transcutaneous Electrical Nervous Stimulation (TENS) [1-3] .In the case presented here, surgical treatment was preferred as there was a subtalar joint dislocation and an advanced degree of deformity. To the best of our knowledge, this is the first study to demonstrate a subtalar dislocation due to falanga. In the light of this, the case reported here was evaluated with the literature of ankle deformity associated with torture.

Case Report

A 49-year old male presented at our hospital with complaints of loss of movement in the right ankle joint and impaired shape which had developed after he had been subjected to torture 7 months previously, in the Syrian civil war . In the physical examination, there was valgus deformity in the right foot and in the medial of the right ankle there was a 5x5cm granulous wound (Figures 1a and 1b). The patient had no inversion, eversion or plantar flexion movement in the right ankle and dorsiflexion was minimal. The distal pulse was palpable in the right lower extremity. The neurological examination results were normal. In the radiological examination, the calcaneus was displaced laterally and the subtalar joint was seen to be dislocated on direct radiographs (Figures 2a and 2b).

The ankle was entered with an anterolateral incision. As there was a granulous wound in the medial of the ankle, culture was taken because of the possibility of infection. No pathology was seen in the tibiotalar joint. The calcaneus was displaced laterally and there was seen to be no joint connection between the talus and calcaneus. All the debris and capsule adhesions were excised. As the subtalar joint could not be reduced to correct the foot deformity, talus excision together with shortening was performed. Following talectomy, the tibial distal joint surface was removed. Good bleeding bone was exposed and after separating the removed talus from the cartilage, it was then used as graft.

The ankle was prepared at 90°. Tibiocalcaneal arthrodesis was applied with an arthrodesis nail between the calcaneus and the tibia (Figures 3a and 3b). To avoid development of forefoot equinus deformity, a 5mm screw was placed from the navicular bone to the tibia. During the operation, the valgus deformity in the right foot was corrected, the transfer of weight directly from the tibia to the calcaneus was achieved and alignment was seen to be acutely corrected (Figures 4a, 4b and 4c).

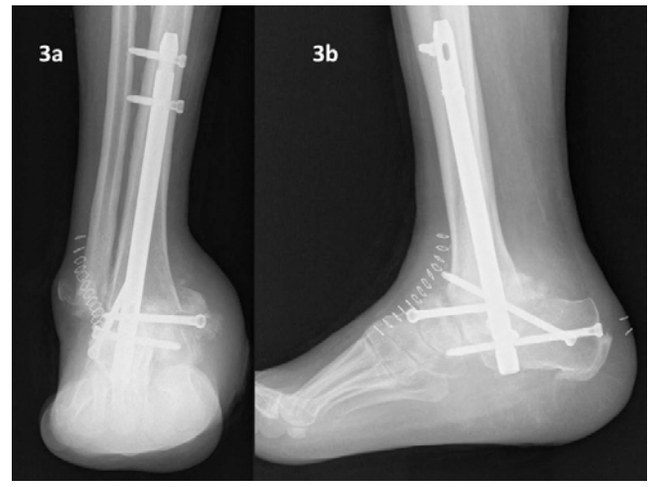
Discussion



Figure 1. (A) Granulous wound in the inferomedial of the ankle, (B) Image of the valgus deformity



Figures 2. Oblique and lateral radiographs showing the subtalar dislocation (A,B)



Figures 3. Postoperative antero-posterior and lateral radiographs (A,B)

The case is presented here of a 49-year old patient who developed a subtalar joint dislocation following falanga and was treated with ankle arthrodesis.

In the chronic period, apart from subjective complaints such



Figures 4. postoperative image of the acute correction of the deformity (A,B,C)

as persistent pain, cramp and tiredness in most falanga victims, objective clinical findings are not encountered. Although fractures in the phalanx, tarsal bones and calcaneus have been described in studies, bone fractures resulting from falanga are extremely rare [1]. In a study of 59 cases of falanga, only 5 fractures were determined [5]. Although bone fractures are rare, falanga seems to cause the development of advanced level bone deformity.

In the case presented here, the calcaneus was displaced laterally and there was a subtalar dislocation. As this case had been neglected, shortness and tightness had developed in the ankle joint, preventing reduction of the tibiotalar joint. Therefore, the method was selected which would acutely correct the deformity and provide stable fixation. During surgery, talectomy was performed, acutely correcting the deformity and fixation was made with a nail. Thus, the deformity was corrected and a solid fixation was obtained, which would allow weight-bearing in the early period. The most significant problem was that of limb length discrepancy developing after talus excision in a young patient, as after the talus excision there was shortness of 2.5cm in the right leg. The problem was removed by weight-bearing with a heel support postoperatively.

To prevent shortness when tibiocalcaneal fusion is applied together with talus excision, it is attempted to apply lengthening at the same time with the Ilızarov method or to remove length difference with structured bone allograft. In a study by Guido et al of 6 patients defined as high risk foot (5 Charcot, 1 infected nail), resection was performed after talectomy and tibiocalcaneal arthrodesis was applied using fibula distal, bone matrix or femoral head allograft [6]. The fixation methods included internal and external fixation methods and the outcomes were found to be satisfactory results.

The foot and ankle are the structures of the body most affected by weight-bearing and which need the greatest stabilisation. In the function of walking, a completely rigid foot serves better than a foot where all the joints are loose. In the case presented here and in other foot and ankle deformities similar to this case, the results were not very pleasing. The surgical treatment applied to the patient presented here will relieve the pain and increase his quality of life. However, the limited ankle range of movement will remain irreversible. There is an evident need for new surgical treatment techniques for the victims of torture.

Competing interests

The authors declare that they have no competing interests.

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