ISOLATED TUBERCULOSIS OF THE TALUS BONE

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A 7-year-old boy was referred to us with a 3-month history of swelling and pain on his left ankle. On laboratory evaluation, he only had an elevated erythrocyte sedimentation rate. X-ray showed an extensive lytic lesion of the talus bone. Chest roentgenogram was normal. The Mantoux skin test was negative. Histological examination of the biopsy tissue showed granuloma and caseating necrosis of tuberculosis. Talectomy with 6 months of antituberculous chemotheraphy resulted in a good clinical outcome.

Keywords: Talus • tuberculosis, bone • tuberculosis, extrapulmonary • tuberculosis, foot • tuberculosis, osteomyelitis

Introduction

Tuberculosis (TB) is still a major infectious health problem for both developed and developing countries. It can affect any organ systems of body with bone involvement ranging from 1 – 3% of all patients with TB. It most commonly affects spinal skeleton followed by the weight-bearing major joints such as hip and knee.

Isolated TB of the talus bone is a very rare occurrence. TB osteomyelitis of talus is extremely rare with fewer than ten cases reported so far in English literature.1, 2 Herein, we report on a patient with isolated TB of the talus bone.

Case Report

A 7-year-old boy from Torbat-e-Jam, a city in the eastern part of Iran, in the neighborhood of Afghanistan West borders was referred to our clinic, with a 3-month history of swelling and pain of his left ankle. On physical examination, his left ankle was warm, tender, and red, and had a limited painful range of motion. There was no history of trauma. His parents reported the illness and loss of appetite in their son.

Laboratory findings were all normal except an elevated erythrocyte sedimentation rate (ESR) of 50 mm (Westergren method) after one hour and a positive CRP test. The Mantuex skin test was negative.

Anteroposterior (AP) and lateral radiographs of the left ankle showed an extensive irregular lytic lesion of the talus bone, without the involvement of calcaneus, distal tibia, and fibula. On 99Tc whole body scan, only an increased uptake at the ankle area was observed.

Chest X-ray was normal (Figure 1). Histological examination of the biopsy sample showed granuloma and caseating necrosis compatible with

Figure 1. Normal chest X-ray of the patient.
TB of the talus. Because of an extended destruction of the talus, the patient underwent talectomy. Smooth-pin tibio-calcaneal articulation was fixed provisionally and a long leg cast was applied (Figure 2).

Six weeks after talectomy, the pin and after 12 weeks the cast were removed. The patient received six months of anti-TB chemotherapy, consisting of two months of four drugs (isoniazid [INH], pyrazinamide, ethambutol, and rifampicin). He was given two drugs (INH and rifampicin) in the next four months. At the end of anti-TB therapy, the patient had no pain or limp. He achieved a good range of motion and his growth indices changed significantly, with normal general condition (Figure 3). ESR declined to normal two months after the operation.

Discussion

Despite the rather scant attention given to TB, it still remains a leading infection, causing death worldwide. Extrapulmonary involvement is noted in 23 – 30% of patients infected with TB with only 1 – 3% having osseous disease. Thirty to fifty percent of patients with bone TB have vertebral involvement. Less frequently observed appendicular skeleton involvement, usually affects major weight-bearing joints of lower extremity such as hip and knee. The ankle and foot are rarely affected and account for only 1% of all TB infections.

In a report of 74 patients with foot or ankle TB, Dhillon and Naji found only one case of talus TB. Tallectomy affords a satisfactory weight-bearing foot, along with chemotherapy. In patients with local involvement of the talus, bone currettage and bone graft plus systemic chemotherapy are the treatments of choice. Our patient had an excellent outcome after talectomy and drug therapy.

References