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Case Report

TUBERCULOSIS OF THE TALUS BONE

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ABSTRACT

A 14-year-old boy came to our outpatient department with a 3-months 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 radiograph was normal. The Mantoux skin test was negative. Histological examination of the biopsy tissue showed granuloma and caseating necrosis of tuberculosis. Talcotomy with 6 months of antituberculous course resulted in a good clinical outcome.

Key Words:

Talus,
Tuberculosis,
Extrapulmonary.

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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 14-year-old boy from Saharanpur, a city in the Uttar Pradesh, came to our outpatient department, with a 3 month history of swelling and pain of his left ankle.

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On physical examination, his left ankle was warm, tender 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 Mantoux 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. Chest X-ray was normal (Figure 1). Histological examination of the biopsy (Figure 2) sample showed granuloma and caseating necrosis compatible with TB of the talus. The CT scan and Magnetic Resonance Imaging (MRI) have roles in making the early diagnosis in such unusual sites. CT scan reveals the extension of lesions and bony destruction. MRI (Figure 3) shows bone destruction sites at a precocious stage. So confirmation is only by identifying the bacillus from the local lesion or by a histopathological study of the sequestra.



Fig. 1. X-Ray Chest PA view

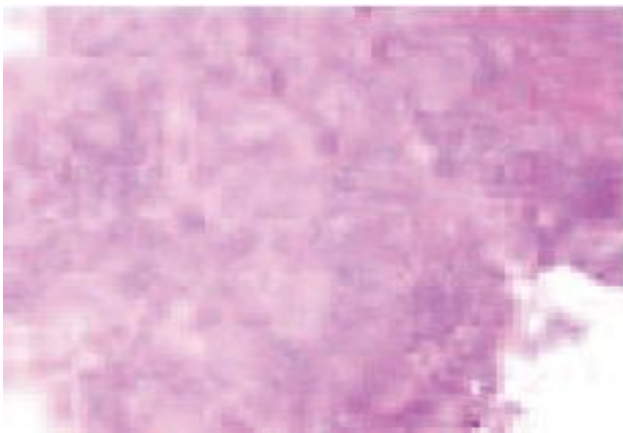


Fig. 2. Histopathological slide of biopsy



Fig.3. MRI Talus

The aim of surgical treatment is two-fold. Firstly, the diagnosis is arrived at through obtaining tissue for bacteriological and histological study and secondly treatment is also supplemented through curettage of the diseased part in the bone.

Because of an extended destruction of the talus, the patient underwent talectomy and a long leg cast was applied (Figure 4). After 12 weeks the cast were removed. The patient received six months of anti-TB therapy, 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. ESR declined to normal two months after the operation.



Fig. 4. Radiograph after Talectomy

DISCUSSION

Despite the rather scant attention given to TB, it still remains a leading infection, causing death worldwide. (3) Extrapulmonary involvement is noted in 23 – 30% of patients infected with TB(4) with only 1 – 3% having osseous disease. Thirty to fifty percent of patients with bone TB have vertebral involvement. (6) 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. (3,6,7) Talectomy affords a satisfactory weight-bearing foot, along with chemotherapy. In patients with local involvement of the talus, bone curettage and bone graft plus systemic chemotherapy are the treatments of choice. (8 – 12) Our patient had an excellent outcome after talectomy and drug therapy with good range of movements.

REFERENCES

- Anand, A. Sood, L.K. 2002. Isolated tuberculosis of the talus without ankle and subtalar joints involvement. *Med J Malaysia*, 57: 371 – 3.
- Anderson, J.R., Ritchie, A.W. and Scobie, W.G. 1979. Tuberculous osteitis of the talus. 60:115 – 8.
- Annual report of tuberculous incidence in the Khorasan Area, Iranian Ministry of Health and Medical Education; 2001 – 2.
- Boussouga, M., Tanane, M., Bousselmame, N., Lazrak, K. and Taobane, H. Tuberculosis of the talus: a rare localization of Koch's bacillus. *Rev Chir Orthop Reparatrice Appar Mot.*, 2002; 88: 522 – 5.

- Goksan, A., Yazicioglu, O., Ozer, H., Temelli, Y., Tozun, R. and Turkmen, M. 1984. Isolated bone tuberculosis of the talu. *Z Ortop Ihre Genzgeb.*, 122: 657 – 8.
- Jockheck, M., Meede, P.J. and Weller, S. 1992. Tuberculous destruction of the talus –a rare form of extrapulmonary skeletal TBC—a case report. *Z Orthop Ihre Grenzgeb.*, 130: 163 – 5.
- Khan, F.A., Khoshhal, K. and Saadeddin, M. 1999. Tuberculosis of the talus and cuboid. *Acta Orthop Scand.*, 70: 637 – 9.
- Kotevoglou, N., Tezer, M. and Kabukcuoglu, F. 2003. Tuberculous osteitis of the tarsal bone: a case report. *Acta Orthop Tramadol Turc*, 37: 84 – 7.
- Mittal, R., Gupta, V. and Rastogi, V. 1999. Tuberculosis of the foot. *J. Bone Joint Surg. Br.*, 81: 997 – 1001.
- Nielsen, F.F., Helmig, O. and de Carvalho, A. 1989. Tuberculosis of the calcaneus and talus with negative tuberculin skin test. *Skeletal Radiol.*, 18: 153 – 5.
- Richid, K., Chkoura, M. and Moudene, A. 2001. Rare localizations of bone tuberculosis. *Rev. Chir. Reparatrice Appar. Mot.*, 87: 176 – 9.
- Ruggieri, M., Pavone, V. and Polizzi, A. 1997. Tuberculosis of the ankle in childhood: clinical, roentgenographic and computed tomography findings. *Clin Pediatr (Phila)*. 36: 529 – 34.
