

TUBERCULOSIS OF TALUS: A CASE REPORT

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ABSTRACT:

Tuberculosis is still a major cause of mortality and morbidity in the world and especially in developed countries where it has been causing major disability. Relating to this we present a case report of 42yr old male patient with h/o pain and swelling of left foot and ankle from 2 years which after preliminary investigation was diagnosed as tuberculosis and was confirmed by biopsy. Under cover of anti-tubercular treatment (ATT) patient was treated with debridement and curettage of talonavicular joint with arthrodesis. Patient was continued on anti-tubercular treatment for 12 months after which patient was able to walk without pain and able to do his routine daily activities. My aim is to present a case of isolated tuberculosis of talonavicular joint which is a rare presentation of extrapulmonary tuberculosis and consideration of this diagnosis in chronic ankle and foot pain.

Keywords: Talonavicular, Tuberculosis, curettage.

INTRODUCTION

In India pulmonary tuberculosis is the most common form of tuberculosis accounting for 75-90% of all types of TB. Extrapulmonary tuberculosis constitutes 10-25% of TB cases and accounts for more than 50% of all cases of TB in HIV+ patients¹. In extrapulmonary of tuberculosis involvement of musculoskeletal system was only 1-2% out of which major proportion of involvement was seen in spine and weight bearing joints such as hip and knee. The incidence of ankle tuberculosis was found to be less than 5% of all osteoarticular tuberculosis.

CASE REPORT

42yrs male patient presented in our OPD with complain of pain and swelling left foot for 2 years with inability to bear weight on affected limb due to pain. There was no associated h/o trauma, fever, long standing cough or weight loss. Preliminary investigation was advised which showed a raised ESR, other parameters were within normal limits. X-ray of the patient showed destruction of the head of talus with irregular articular surface (Fig1). Patient was further investigated with MRI which suggested contiguous involvement and partial destruction of talus and proximal part of navicular bone with joint effusion suggesting a tubercular pathology. A needle biopsy was done which on histopathological examination showed granuloma and caseating necrosis which confirmed our diagnosis to be tuberculosis of talonavicular joint. Patient was kept on 4 drug regime along with symptomatic treatment. After 3 weeks when pain and swelling subsided, using an anteromedial approach for talonavicular joint, curettage and bone grafting was done with an aim to achieve arthrodesis and a pain free joint. Post operatively patient was kept on below knee POP cast for 3 months with no weight

bearing and. Anti-tubercular treatment was continued for 12 months and symptomatic treatment given as needed. Anti-tubercular treatment consisted of initial four drugs (Isoniazid, Rifampicin, Pyrazinamide and Ethambutol) for two months then three drugs (Isoniazid, Rifampicin, Pyrazinamide) for next six months and finally two drugs (Isoniazid, Rifampicin) until 12 months.

After 3 months of immobilization X-ray were done which showed satisfactory integration of bone graft with patient having mild diffuse tenderness over medial aspect of foot with stiffness of ankle so patient was advised non weight bearing physiotherapy for 3 months with regular follow up. Finally after 6 months postoperatively when the patient had no pain and tenderness partial weight bearing was started with help of walker which was continued for 3 months and then full weight bearing was allowed.



Fig. 1: Radiograph showing destruction of talar head and talonavicular joint.



Fig. 2: MRI showing destruction of talar head and talonavicular joint.

DISCUSSION

Tuberculosis still remains the most common infectious disease encountered in outdoor patient and has been a major cause of morbidity and disability. Osteoarticular tuberculosis (TB) represents 1–5% of all cases of tuberculous disease and 10–18% of extrapulmonary involvement with spine being the most commonly affected followed by major weight bearing joints. Involvement of foot has been a rare entity and account for only 1% of musculoskeletal tuberculosis which was in accordance to study of Dhillon et al who had only one case of tuberculosis of talus in 74 patients with foot or ankle TB¹. Diagnosis of foot tuberculosis is difficult as it is detected in late stage. Most common symptoms includes pain, swelling and stiffness, while swelling with fullness around malleoli and tendoachilis insertion, plantar flexion of ankle joint are the important signs of ankle-foot TB. There may be discharging sinus or non-healing ulcer with secondary infection. Most commonly involved bones are calcaneum, talus, first metatarsal and navicular. Mid-tarsal joint is the most commonly affected joint in this disease. Pulmonary involvement is uncommon and usually present in less than 50% of cases^{4,5}.

X-ray is rarely diagnostic until late stage, CT scan & MRI should be done on suspicion of ankle foot tuberculosis as signs of bone destruction and osteolysis can be seen but diagnosis is confirmed only by histopathological examination of bone or soft tissue taken from infected site. Treatment is usually conservative with ATT for 9-20 months with immobilization of affected joint by cast. In our case tubercular drugs were given for 12 months as recurrence is higher after shorter course^{6,7}. As, results of conservative treatment are very good hence surgical intervention (debridement and curettage, excision of sequestered/destroyed bones and arthrodesis) is reserved only for failure of conservative therapy. In our case we decided for

surgical debridement and arthrodesis as there was destruction of most of the head of talus causing the talonavicular joint to be unstable and to reduce the progression of disease to adjacent joints as a synovial lined cavity exists between each pair of tarsal bones and these joints frequently communicate with each other.

In our case patient was reviewed every month initially for 3 months where clinical signs of healing such as decreased pain and swelling of foot were noted and x-rays were do see the position of bone graft. All the above clinical findings are evident as early as 5 weeks, but radiological signs of healing are evident after 5 months of treatment. Weight bearing and gait training was initiated at 6months post operatively.

CONCLUSION

Tuberculosis of foot is rare but should be considered as a differential diagnosis in cases of chronic ankle and foot pain.

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