LOCALIZED TUBERCULAR SWELLING IN THE HAND MASQUERADING AS A GANGLION-A RARE CASE REPORT

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Abstract

Musculoskeletal system involvement in tuberculosis is rare. Especially rare is the involvement of hand. The affected hand can present in different modes ranging from dactylitis to multiple tubercular lesions. Here we present a localized lesion which was initially diagnosed as a ganglion.

Key words: hand tuberculosis; ganglion; dactylitis

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Introduction

Musculoskeletal system is one of the commonly involved in non-pulmonary tuberculosis. It is a chronic and progressive disease that mostly affects weight bearing joints [1]. Tuberculosis (TB) of hand is a rarely described entity. Though it has been reported in the literature occasionally, its presentation as a localized swelling is rare [2-5]. The most striking and often worrisome feature of these cases is the delay between onset of symptoms and correct diagnosis. TB is a major public health problem in India. India accounts for one-fifth of the global TB incident cases. Each year nearly 2 million people in India develop TB, of which around 0.87 million are infectious cases. With such endemicity, tuberculosis should always be a differential diagnosis for any atypical swellings.

Case Report

A 34 year old gentleman presented with complaints of swelling over his right hand (Fig. 1). Though it did not hinder his daily activities, he complained of occasional pain in the swelling. On examination there was a 2x3cms smooth surfaced firm swelling over the dorsum of right hand. There was neither restriction in the wrist movements nor any neurovascular deficits. He had undergone hand and chest radiography which were normal. A clinical diagnosis of ganglion was made. The lesion was excised in toto and sent for histopathologic examination (Fig. 2). The diagnosis of tuberculosis was made on the basis of characteristic histopathology (Fig. 3), a positive culture for *Mycobacterium tuberculosis* and a positive smear for acid-fast bacilli. The hand was splinted and anti-tubercular treatment was started. At 6 months follow-up the patient was doing well.

Figure 1. Swelling over the dorsum of right hand

Figure 2. Excised specimen

Figure 3. Histopathology picture showing characteristic granuloma and giant cells

Discussion

Tuberculosis of hand is a rare clinical manifestation. Pain and swelling are the most common presenting features, and discharging sinuses can occasionally be seen [6]. The manifestation is usually resembles tenosynovitis, sometimes even involving the carpal tunnel. Occasionally there can be tubercular synovitis of the wrist or flexor tenosynovitis. Nerve conduction in such cases show delayed conduction at the carpal tunnel. Tuberculosis of the fingers is also known as spina ventosa, but it is suggested that all tubercular lesions of the hand should be referred to as 'tuberculosis of the hand' [7]. Tuberculosis of the fingers is seen typically in the phalanges and interphalangeal joints and is said to be uncommon after five years of age. During childhood these

short tubular bones have a lavish blood supply via a nutrient vessel entering the middle of the phalanx in which the first inoculum becomes lodged [8]. Bony tuberculosis of the phalanges and metacarpals can mimic bone tumours and a histopathological examination is necessary for diagnosis. This is especially true for asymptomatic lesions which mimic ganglion. With the successful management of pulmonary tuberculosis and worldwide resurgence of musculoskeletal tuberculosis there is an increase in cases affecting atypical sites, including the hand. Further studies with longer follow-up are required to develop early diagnostic tools and treatment protocols to expedite treatment and hand function.

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