

A Rare Case of Sternoclavicular Joint Tubercular Cold Abscess

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ABSTRACT

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Tuberculosis is considered as ubiquitous disease as it involves any part of the body, but sternoclavicular joint tuberculosis is a rare presentation. We report a case of tuberculosis of the sternoclavicular joint tuberculosis in a twenty eight-year-old female nursing staff having swelling of the medial end of right clavicle. Pus culture was positive for *Mycobacterium tuberculosis* after four months of initial presentation. Management of this entity is mainly in the form of anti-tubercular therapy, DOTS (Directly Observed Treatment Short course) regime.

Keywords: Cold-Abscess, Sinus, Tuberculosis, Bone Tuberculosis, Abscess

*See End Note for complete author details

BACKGROUND

Skeletal tuberculosis constitutes around 10% of the extrapulmonary cases, out of which weight-bearing joints are most commonly involved.¹ Chest wall tuberculosis is rare, and has been reported to be 1% to 10% of skeletal tuberculosis cases. Most patients with a tuberculous abscess of the chest wall do not complain of specific signs or symptoms, and it is difficult to diagnose and often misdiagnosed.² We report a rare case of sternoclavicular joint cold abscess, due to tuberculosis. This type of abscess often fails to respond to anti-tuberculosis medication and therefore a proper combination of medical and surgical management is very important to handle it. This case of tuberculous abscess is a rare presentation with misdiagnosis in the early part of the treatment and that came out with mycobacterium resistant to Isoniazid (INH).

CASE REPORT

28 year old nursing staff working in health service, Kerala state of India, complains of pain over the right shoulder and right side of the chest around 10 months back, and treated with NSIDs for symptomatic relief. Two weeks after initial symptoms she noticed a swelling over the right sterno-clavicular joint. Swelling was felt like a jelly inside, and associated with fever,

evening rise in temperature and weight loss. She went to see an orthopedic surgeon, and investigated with CT-scan, MRI and other routine blood investigations. MRI results came up with periosteal inflammatory condition, and not suggestive of any other pathology.

There was a clinical suspicion of pyogenic abscess, and there by aspirated the lesion and was sent for culture. The culture was suggestive of staphylococcus aureus infection. Based on the sensitivity report, started cefuroxime injection three times daily and continued for 20 days (Total 61 injections). The lesion was not subsiding even after 61 doses of antibiotic. They have drained the lesion seven times, each times collected more than 5ml of pus from the lesion. Repeated the pus culture for three different times and reports showed only staphylococcus. The patient was asked to continue the oral antibiotics, because of the suspicion of osteomyelitis.

Four months after initial presentation, abscess looked like a discharging one with multiple sinuses, and finally sent the pus for mycobacterium culture and sensitivity. Culture result was positive for mycobacterium tuberculosis, which was resistant to Isoniazid (INH), and the diagnosis was confirmed as tubercular cold abscess.

The patient was asked to start anti-tubercular therapy (ATT) without direct observation (Non-DOT regime),

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but she suggested for DOTS regime, because of her awareness of the regime. She met a health inspector in her PHC, and referred to District TB Centre (DTC) for further investigation, where she had undergone Mantoux test, sputum AFB and X-ray chest, and found to be Mantoux positive (12x12mm) but sputum AFB and X-ray chest way negative for pulmonary TB. She also underwent liver function test and renal function tests before starting treatment, which was found to be normal.

From DTC, the patient has been sent to our DOTS centre for initiating anti-TB treatment (DOTS), and initiated the Category-1 DOTS regime. She has finished her intensive phase, and is on 3rd month of continuation phase. Now the discharging sinuses reduced in number from seven to one, and noticed lot of improvement in other constitutional symptoms (Figure 1).



Figure 1. Cold abscess with multiple discharging sinuses

DISCUSSION

Osteoarticular TB currently accounts for 35% of all cases of the extrapulmonary form of the disease, which is more commonly found in children and the in elderly.³ Tubercular arthritis is typically of monoarticular, resulting from hematogenous spread from primary infection.⁴ It most commonly involves the spine followed by hip and knee joints. The sternoclavicular

joint is a rare site for occurrence of tubercular arthritis.^{5,6} Tubercular cold abscess at sternoclavicular joint most commonly presents as a cystic, globular, minimally tender, non-pulsatile swelling with no erythema or warmth over it.⁷ Diagnostic and therapeutic surgical procedure should be taken into consideration, if there is no improvement of the condition after a diagnosis of bone and joint tuberculosis, and the administration of anti-tuberculosis drugs (ATT).⁷ The common differential diagnosis of sternoclavicular cold abscess include low-grade pyogenic abscess, rheumatoid disease, myeloma and secondary deposits.⁵ In this case initial diagnosis was staphylococcal infection with a suspicion of chronic osteomyelitis, and there by a delay in diagnosis of tubercular cold abscess happened. WHO-recommended treatment strategy for the management of tuberculosis is DOTS, which is the most effective strategy available for achieving treatment completion and thereby cure.⁸

END NOTE

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