Available online at www.sciencedirect.com
ScienceDirect
journal homepage: http://www.journals.elsevier.com/indian-journal-of-tuberculosis/

Case Report

Sternoclavicular joint tuberculosis: A series of 9 cases

Umesh Kumar Meena [a,*], Balaji Saibaba [b], Prateek Behera [c], Ramesh Chand Meena [d]

[a] Assistant Professor, Department of Orthopaedics, SMS Medical College and Hospital, Jaipur, India
[b] Senior Resident, Department of Orthopaedics, Postgraduate Institute of Medical Education and Research, Chandigarh, India
[c] Assistant Professor, Central Institute of Orthopaedics, VMMC and Safdarjung Hospital, New Delhi 110029, India
[d] Professor and Head of Department, Department of Orthopaedics, SMS Medical College and Hospital, Jaipur, India

ARTICLE INFO

Article history:
Received 7 May 2016
Accepted 4 January 2017
Available online xxx

Keywords:
Sternoclavicular joint tuberculosis
Acid-fast bacilli
Fine-needle aspiration cytology (FNAC)
Antitubercular chemotherapy and immunomodulation therapy

ABSTRACT

Tuberculosis (TB) is a chronic disease that may affect any part of the human body. Though the osteoarticular TB is not uncommonly seen, TB of the sternoclavicular joint (SC joint) is an infrequently reported condition. The very fact that many physicians have never seen a single case of SC joint TB in their entire career makes them never think of this condition in cases of chronic swellings of the medial end of clavicle. We are reporting here our experience with nine cases of SC joint TB that were treated by us. Delay in diagnosis in each of the case was a common feature, and they had been treated in line of inflammation elsewhere. Diagnosis was arrived at by clinical, radiological, and microscopic examinations. Six of the reported cases responded well to antitubercular chemotherapy, and in one of the cases, chemotherapy was combined with debridement, which was actually done during biopsy and primarily for tissue diagnosis; in another two cases, immunomodulation therapy for HIV was given along with antitubercular therapy. Tuberculous etiology should be considered for patients presenting with atypical sites of skeletal inflammation, and a high index of suspicion by the treating physician is necessary to make early diagnosis and appropriate treatment.

© 2017 Published by Elsevier B.V. on behalf of Tuberculosis Association of India.

1. Introduction

Tuberculosis (TB) is still a very common disease in developing countries and is being increasingly reported in developed countries in immunodeficient population. In addition, the increasing prevalence of TB in both immunocompetent and immunocompromised individuals makes TB a topic of universal concern.[1,2] Skeletal TB constitutes around 10% of the extrapulmonary cases, with weight-bearing joints being most commonly involved.[1] TB of the spine is a commonly reported condition along with that of the hip and knee joints. Sternoclavicular joint (SC joint) involvement has been reported in <1% of osteoarticular TB cases.[1–4] The condition usually starts from the medial end of the clavicle as a painful swelling of insidious onset and gradual progression.[1,5] These cases may be seen in patients with active TB or even in patients having foci of TB involving other joints. Despite the availability of advanced diagnostic facilities, TB of the SC joint often raises diagnostic problems either because of uncommon site of involvement or a lack of awareness of this condition among the treating physicians, and because of this, these are frequently misdiagnosed or diagnosed at a late stage.[4]

* *Corresponding author at*: Department of Orthopaedics, SMS Medical College and Hospital, Jaipur 302004, India. Tel.: +91 09636367130.
E-mail address: drumesh_meena@yahoo.co.in (U.K. Meena).

http://dx.doi.org/10.1016/j.ijtb.2017.01.002
0019-5707/© 2017 Published by Elsevier B.V. on behalf of Tuberculosis Association of India.

We are here reporting a series of nine cases of unilateral TB of SC joint with or without any demonstrable active foci of pulmonary or extrapulmonary TB.

2. Patients and treatment

Between 2005 and 2013, we treated 9 patients with tubercular arthritis of SC joint (Table 1). Their mean age was 41 (24–65) years. Involvement of right side was there in six patients while one patient also had associated multicentric spinal involvement, which was previously reported by us.[7] The most common presentation was pain and swelling on the medial end of clavicle in six patients. One patient had painless swelling at the medial end of clavicle while discharging sinus was the presentation in two patients. Mild restriction of motion of the shoulder because of pain was found in 2 patients and neck pain was reported by one of the patients. Constitutional symptoms in the form of malaise, fever, and loss of weight and of appetite were seen in 6 patients. The mean duration of symptoms before diagnosis was 6 (2–13) months. 6 patients were initially treated by physicians for chest, neck, or shoulder pain, and were referred to us after the onset of swelling or discharging sinus. Hematological evaluation in all patients showed a raised erythrocyte sedimentation rate and a positive Mantoux test.

Plain radiographs of the chest and the medial end of the clavicle were unremarkable in all cases, except in one patient where a doubtful cystic lesion was noted at the medial end of the clavicle; in another patient, evidence of active disease in lungs along with multicentric spinal involvement was noted. Magnetic resonance imaging (MRI) or computed tomography (CT) scan was done in 7 patients. The final diagnosis was arrived at in these cases on the basis of clinical examination, suspicious radiographs, and representative tissue biopsy. Fine-needle aspiration biopsy was performed in every patient and open biopsy was performed in 1 patient where fine-needle aspiration cytology (FNAC) was non-conclusive. Evidence of caseous granulomatous pathology was obtained in five cases by FNAC and by open biopsy in one case. Acid-fast bacilli (after Ziehl–Neelsen staining) were seen in only 3 cases. TB polymerase chain reaction (PCR) of aspirated fluid was positive in 4 of our cases. One patient had an active tubercular lesion in the lungs and two of the cases tested positive for HIV.

At the time of open biopsy, which was done in one patient, debridement of the joint was done and all dead tissue removed. After confirmation of diagnosis, all the patients were put on an antitubercular regimen (antitubercular therapy—ATT) consisting of four drugs—rifampicin (10 mg/kg daily), isoniazid (5 mg/kg daily), ethambutol (15 mg/kg daily) and pyrazinamide (25 mg/kg in divided doses)—in the initial intensive phase for 3–6 months. After that, depending on the clinical response to treatment, patients were switched over to three drugs (isoniazid, rifampicin and ethambutol), followed 1 or 2 months later by the omission of ethambutol. Isoniazid and rifampicin were continued as maintenance therapy for 14–18 months. Final outcome of therapy was judged by clinical, hematological, and radiological parameters. Seven of the patients showed evidence of local healing of the lesion within 6 months of appropriate treatment. Two patients were given ATT along with immunomodulation therapy for HIV infection; one did not respond to first-line ATT, and was found to have drug resistance to isoniazid and rifampicin, and was treated with second-line antitubercular drugs (Figs. 1–4).

Table 1 – Summary of 9 cases.

	Age/sex/side	Chief complaints	Associated disease	Diagnosis	Treatment
Case 1	53/male/right	Pain and swelling since 5 months	None	Caseating granulomatous lesion on biopsy, PCR positive	Antitubercular therapy for 16 months
Case 2	24/female/right	Pain and swelling since 2 months	HIV positive	AFB in ZN staining with positive PCR	Antitubercular therapy for 14 months with immunomodulation therapy for HIV
Case 3	51/male/left	Discharging sinus since 4 months	None	AFB in ZN staining	Antitubercular therapy for 18 months
Case 4	32/male/right	Pain and swelling since 7 months	HIV positive	Caseating granulomatous lesion on biopsy with positive PCR	Second-line antitubercular therapy for 18 months with immunomodulation therapy for HIV
Case 5	58/female/left	Painless swelling since 13 months	Rheumatoid arthritis	Caseating granulomatous lesion on biopsy	Antitubercular therapy for 18 months
Case 6	45/male/right	Pain and swelling since 6 months	None	Caseating granulomatous lesion on biopsy	Antitubercular therapy for 16 months
Case 7	65/male/right	Discharging sinus since 6 months	None	Caseating granulomatous lesion on biopsy	Antitubercular therapy for 12 months
Case 8	33/female/left	Pain and swelling since 8 months	None	Caseating granulomatous lesion on biopsy with positive PCR	Antitubercular therapy for 15 months
Case 9	54/male/right	Pain and swelling since 5 months	None	AFB in ZN staining	Antitubercular therapy for 18 months

Please cite this article in press as: Meena UK, et al. Sternoclavicular joint tuberculosis: A series of 9 cases, *Indian J Tuberc.* (2017), http://dx.doi.org/10.1016/j.ijtb.2017.01.002

Download English Version:

https://daneshyari.com/en/article/5672403

Download Persian Version:

https://daneshyari.com/article/5672403

Daneshyari.com