

Isolated Clavicle Bone Tuberculosis

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Citation

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Abstract

Tuberculosis of clavicle without involvement of neighboring joints can be seen rarely. Here we report such type of case in 25 years old.

INTRODUCTION

Osteoarticular involvement occurs in 1 to 3% of patients with extrapulmonary tuberculosis and of which spinal tuberculosis represents 50% of these lesions. Isolated tuberculosis of clavicle with absence of involvement of neighbouring joint is rare¹. Clavicle bone tuberculosis is uncommon in adults. This case is reported because of rarity.

CASE REPORT

A 22 year old female, house wife came to our department with complaints of lump over anterior part of right chest and low grade fever for last two months. She took antibiotics and other supportive treatment for one month without any clinical improvement. There was no past history of antitubercular treatment as well as there was no family history of tuberculosis.

General examination revealed average built of patient with no peripheral lymphadenopathy. Examination of right upper and anterior part of chest revealed that a 2x2 cm, non tender, firm, swelling located at medial end of clavicle bone. She had no history of trauma & antitubercular treatment as well as there was no family history of tuberculosis.

Her resting pulse rate was 90/min and blood pressure was 122/78mmHg. Respiratory system examination revealed bilateral crepts (rt>lt.). Her chest x-ray revealed heterogenous opacity in right upper and middle lung zones and displacement of medial end of right clavicle. Her medial end of clavicle bone revealed osteolytic lesions. Thus initial diagnosis of pulmonary tuberculosis was made. Examination of others system was unremarkable. Her Haemoglobin was 14 gm%; Total Leucocyte count was 8,900/cmm; Differential Leucocyte count was Neutrophils 17%, Lymphocytes 72% and Monocytes 1% and Erythrocyte

sedimentation rate was 58 mm/hour. Her PPD showed 34 mm indurations at 72 hours. Her sputum smear for AFB on three consecutive days was positive. Her biopsy of medial end of clavicle bone on right side was also done to know the nature of swelling. Aspirated biopsy material was sent for AFB smear, Culture for Mycobacterium Tuberculosis and Culture for pyogenic organism. AFB smear was positive in biopsy material and Culture for Mycobacterium Tuberculosis by bactec method was also positive. No growth of pyogenic organism was seen in aspirated material. Thus diagnosis of right sided pulmonary tuberculosis associated with clavicle bone tuberculosis was made and her treatment was began with 4 drugs (Rifampicin, Ethambutol, Isoniazid and Pyrazinamide) for 2 months, followed by 2 drugs (Rifampicin, Isoniazid) for 4 months. Swelling was disappeared after two months of institution of antitubercular treatment along with decrement of shadow in radiology.

DISCUSSION

Isolated clavicle bone tuberculosis is uncommon form of osteoarticular tuberculosis. The exact prevalence of clavicle bone tuberculosis is not known². Although clavicular tubercular osteomyelitis is rare, particularly in adults (as seen in present case) and more common among children³. Osteoarticular tubercular lesions are the result of haematogenous dissemination from primarily infected focus⁴. The primary focus may be active or quiescent, apparent or latent, either in lungs or in other viscera. The infection reaches the skeletal system through vascular channel, generally arteries as a result of bacilleemia or rarely in axial skeleton through batson's plexus of veins^{5,6}.

Most of the patients presenting with painful swelling of clavicle with formation of cold abscess or sinuses¹. X-ray may show diffuse thickening and honeycombing or multiple

cystic cavity or sequestration.⁷

The gold standard for the diagnosis of osseous tuberculosis is culture of *Mycobacterium tuberculosis* from biopsy of bone tissue and positive Ziehl-Neelsen staining for acid-fast bacilli requires at least 10⁴ acid-fast bacilli per milliliter of specimen.⁸ Biopsy confirmed the diagnosis in almost 100 percent of cases on histology.

Differential diagnostic considerations include pyogenic osteomyelitis, Multiple Myeloma and secondary deposits.^{7,8}

Management is essentially by antitubercular drugs, rest to part in functioning position and early active exercises of the involved parts. Current recommendations for the treatment of osseous tuberculosis include a 2-month initial phase of isoniazid, rifampin, pyrazinamide, and ethambutol followed by a 6- to 12-month regimen of isoniazid and rifampin.¹⁰ There are few studies argue that the paucibacillary nature of the lesion make a 6-month treatment course appropriate.⁹

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