A UNIQUE CASE OF ISOLATED SCAPULAR TUBERCULOSIS: AN ENIGMA OF FINDINGS AND DILEMMA IN DIAGNOSIS

Saurabh Biswas¹, Tapan Das Bairagya², Indranath Ghosh³ and Anirban Biswas⁴

¹Assistant Professor, Pulmonary Medicine, North Bengal Medical College & Hospital, Sushrutanagar, Darjeeling, West Bengal, India
²Assistant Professor, Pulmonary Medicine, North Bengal Medical College & Hospital, Sushrutanagar, Darjeeling, West Bengal, India
³Associate Professor, Pulmonary Medicine, North Bengal Medical College & Hospital, Sushrutanagar, Darjeeling, West Bengal, India
⁴Professor, Pulmonary Medicine, N.R.S. Medical College, Kolkata, West Bengal, India.

ABSTRACT
Scapular tuberculosis in an extremely uncommon entity. We report a case of isolated scapular tuberculosis presented with a swelling of scapular region with a discharging sinus. Radiography of scapula followed by (Fine-needle aspiration cytology) FNAC and Ziehl–Neelsen (ZN) stain and culture of the aspirated material confirmed the diagnosis. High degree of suspicion is needed to avoid a delay in diagnosis of scapular tuberculosis without involvement of lung or any other organs.

KEYWORDS: Isolated scapular tuberculosis, scapula swelling, extra-pulmonary TB.

INTRODUCTION
Tuberculosis is very common in countries like India. With the rising burden of HIV/AIDS, atypical presentation has become more common leading to diagnostic dilemma and delay in diagnosis.¹ Extra-pulmonary tuberculosis of bones and joints is not very uncommon. But occurrences of tuberculosis in flat bones are rare.² Tuberculosis of scapula is an extremely rare clinical entity with only a few cases reported in literature so far. Here we report a case of tuberculosis of scapula in a young male.

CASE REPORT

A 24 years old Indian male presented with pain and progressive swelling with a discharging sinus in the right scapular area for three months. He had low grade fever for the previous three months. He had no pulmonary or other symptoms. His appetite was normal. He gave history of his father treated for pulmonary tuberculosis eight years ago. Clinical examination of all the systems was unremarkable expect for a mild pallor. Blood investigations showed a hemoglobin of 10 gm/dl, total leucocyte count of 5600/cmm with neutrophil 68% and lymphocyte 28% and an ESR of 45mm in the first hour. Serum biochemistry was normal. His HIV ELISA was

Fig.1: Swelling and discharging sinus at the scapular area

Fig.2: X-ray of right thoracic cage showing lytic lesion at the inferior angle of scapula
negative. His chest X-ray revealed no lung parenchymal abnormalities and USG of whole abdomen was normal.

We did an x-ray of the right thoracic cage. It showed an erosion of the angle of the scapula. FNAC from the chest wall lesion showed granuloma with necrosis and acid fast bacilli (AFB) was found on ZN stain. Subsequent culture of the material showed growth of mycobacterium tuberculosis complex. He was put on Category-I ATD of the national tuberculosis control program in India, comprising of four drugs- isoniazid, rifampicin, ethambutol and pyrazinamide. His fever subsided after three weeks and at a follow up visit after three months his chest wall lesion was found to be resolved completely with scarring.

DISCUSSION
Osteoarticular tuberculosis constitutes only one to two percent of all tuberculosis. Pure tuberculous osteomyelitis of flat membranous bones is extremely rare. In one series from India, from vertebral tuberculosis, TB is the most common form of skeletal tuberculosis- almost half of the cases followed by knee (18%), hip (16%), ankle and foot(8%), elbow(4%), hand(2%), wrist(1%), ileum, shoulder, rib, pubis, calcaneus, femur, and scro-iliac joint had fewer than two cases reported in the series of 194 cases. Tuberculosis of scapula is an extremely rare clinical entity with only a few cases reported so far. Osteoarticular tuberculosis usually results from haematogenous or lymphatic spread from a primary focus like in lungs, lymph node etc. In our case we didn’t find any other foci of tuberculosis and we presumed he had an isolated involvement of scapula. He had history of close contact with an active tuberculosis patient eight years ago; but in countries like India where tuberculosis is endemic, it is quite possible to have contacts with many patients with active disease in a lifetime. As the case presented with swelling of the right scapular area with a discharging sinus both tuberculous and bacterial osteomyelitis were thought of. Radiolucent lesion with irregular margin and surrounding sclerosis is the usual radiographic finding of tuberculous osteomyelitis. Radiolucent lesions are not specific for tuberculosis though and may be found in pyogenic osteomyelitis, eosinophilic granuloma, metastases, sarcoidosis etc. So, differentiation of tuberculosis from other diseases needs confirmation by tissue biopsy or FNAC and/or presence of AFB in the tissue. Masood reported that FNAC is a good alternative to open biopsy as it can show the granulomatous reaction in 73% of time, bacteria in 64% and positive culture in 83% of time. Treatment of osteoarticular tuberculosis consists of administration of an effective antitubercular drug regimen, while presence of a giant sequestra may need surgical intervention along with drug therapy. In India Revised National Tuberculosis Control Program (RNTCP) has different categories of regimes for different case types. We used fourteen months of therapy (Category I) for the present case and his lesion healed completely.

CONCLUSION
Tuberculous osteomyelitis though uncommon, should be thought of in endemic countries like India in cases presenting with an isolated swelling of scapula. Radiology may give an initial clue. FNAC and AFB staining and culture confirm the diagnosis. Scapular tuberculosis can be effectively treated with multi-drug regimen of tuberculosis control program in India.

Conflicts of Interest: The authors declare that there is no conflict of interest regarding the publication of this manuscript.

REFERENCES