Recurrent cold abscess of the chest wall in a young immunocompetent person

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ABSTRACT

Tuberculous abscess in chest wall is rare. Diagnosis and treatment of chest wall tuberculosis is difficult as well as contentious in regard to recommendation of the appropriate therapeutic strategy. We present a case of recurrent chest wall abscess due to Mycobacterium tuberculosis without any evidence of pulmonary/skeletal involvement in a young immunocompetent person. He was successfully treated by adopting combination of surgical and anti-tubercular treatment.

INTRODUCTION

Cold abscess of the chest wall is a rare extra pulmonary tuberculous site. It is usually seen in cases of severe disseminated form of tuberculosis. Chest wall tuberculosis (CWTB) constitutes 1-5 % of all cases of musculoskeletal tuberculosis, which in turn represents 1-2 % of all tuberculosis cases. Diagnosis of CWTB poses complexity for the reason of it’s clinical presentation, which may resemble a pyogenic abscess or a chest wall tumor. In addition, CWTB often fails to respond to antitubercular chemotherapy. A controversy exists regarding the appropriate therapeutic strategy. A case of primary tuberculosis of chest wall without any evidence of pulmonary/skeletal tuberculosis in a young immuno-competent patient is presented herewith.

CASE REPORT

A 20 year old man presented to the out patients department with an ulcer and swelling over lateral part of left chest wall since two months. Cough with expectoration and loss of weight were evident since one week. There was no history of fever or loss of appetite. Past history revealed that he had swelling in right mandibular region and right upper neck below the mandible for which incision and drainage was done two years back. He also had a mass over right chest wall, which was removed and subjected to histopathological examination which suggested it to be a tubercular lesion. However no microbiological investigation was done at that time. He was prescribed anti-tubercular drugs, which he discontinued on his discretion after taking for one and half months citing no reason. Naked eye examination revealed a solitary, oval and non-tender growth over left side chest wall measuring about 3 x 2 cm, with smooth and ill defined diffused borders, and a normal overlying skin. On the right side of chest wall, at fourth intercostal space, an oval ulcer was seen with an undermined edge surrounded by a blue zone which was not fixed to the underlying structures (Fig 1). Necessary investigations were done (table-1).
Incision and drainage of the abscess was done under aseptic precautions. About 0.5 - 1 ml of thick yellow pus having no foul smell was present which were sent for culture and sensitivity. Histopathological examination showed tuberculous inflammation (Fig 2).

Figure 2: HPE Showing tuberculous inflammation. Gram stain showed few pus cells with no organisms. No acid fast bacilli were seen in Ziehl Neelsen stain. Aerobic or anaerobic bacteria were not isolated on routine culture. Growth was seen after three weeks on Lowenstein Jensen media. The isolate was sent for confirmation at Tuberculosis Research Center (TRC), Chennai which reported it as Mycobacterium tuberculosis and was sensitive to streptomycin, isoniazid, rifampicin, ethambutol, kanamycin, ethionamide and ofloxacin. The patient was started with direct observation treatment (DOTS) category-1 (Isoniazid, Rifampicin, Pyrazinamide and Ethambutol) for 2 months followed by (Isoniazid and Rifampicin) for 4 months along with surgical debridement. On follow up, after 5 months there was no recurrence of swelling or abscess.

DISCUSSION

Chest wall abscess caused by Mycobacterium tuberculosis are rare and still a diagnostic and therapeutic challenge. TB abscess of the chest is usually related to pleuritis caused by tuberculosis. It may be secondary to haematogenous or lymphatic dissemination or from direct extension from the underlying pleura of the lung. In the present case there is no involvement of either lungs or skeletal structure. However, the primary infection could have started with local manifestations of cervical lymph node infection as suggested by the past history. Putting the controversy at rest, it is therefore, the authors wish to bring to the notice of clinician that such cases can be treated successfully with combination of surgical debridement and DOTS category-1 regime.

REFERENCES


