Metastatic Tuberculous Chest Wall and Massive Psoas Abscesses in an Immunocompetent Patient

Mansoor C. Abdulla

Department of Internal Medicine, MES Medical College, Perinthalmanna, Kerala, India

Abstract

Extrapulmonary tuberculosis (TB) is rare in immunocompetent healthy adults. TB of the chest wall accounts for 1%–5% of all cases of musculoskeletal TB. Psoas abscess can be either primary or secondary to diseases like Pott’s spine. We describe a patient with massive lower chest wall abscess extending to abdominal muscles and an asymptomatic large psoas abscess detected on imaging due to spine TB which responded well to antitubercular therapy and drainage without surgical measures. The concomitant presence of a massive chest wall abscess and psoas abscess due to TB in an immunocompetent patient was not reported previously.

Keywords: Chest wall abscess, extrapulmonary tuberculosis, Pott disease, psoas abscesses

INTRODUCTION

Extrapulmonary tuberculosis (TB) is rare in immunocompetent individuals. Bone and joint TB is considered the third-most frequent localization of extrapulmonary TB.[1] Osteoarticular TB most commonly occurs in the vertebral column, less frequently affected sites are hip, knee, and sacroiliac joints.[2] TB of the chest wall accounts for 1%–5% of all cases of musculoskeletal TB. Psoas abscess can be either primary or secondary to diseases like Pott’s spine. Multifocal TB is the presence of large multifocal TB areas in the same or different adjacent or distant organs.[3] The present case reports a 23-year-old immunocompetent patient who had massive lower chest wall and psoas abscesses due to Pott disease which was managed without surgical drainage.

CASE REPORT

A 23-year-old otherwise healthy male presented with painful swelling over the right side of the chest wall for 1 month. He had no history of fever, significant weight loss, had no sick contacts, and had no history of addictions. On examination, he had a swelling over the right lower lateral chest wall which was 10 cm × 8 cm in size, soft, and tender. Hemoglobin was 12.5 g/dl, total leukocyte count 8400/ml with normal differential, platelet count 420,000/µl, erythrocyte sedimentation rate 15 mm in 1 h. Blood chemistries were normal. The chest X-ray was normal. Contrast-enhanced computed tomography of the thorax and abdomen showed right lower chest wall abscess (8.1 cm × 9.0 cm × 10 cm) extending to right hypochondrium and lateral abdominal wall muscles, massive left psoas (8.1 cm × 9.1 cm × 15 cm) abscess, paraspinal collection, and a lytic lesion in D10 vertebra [Figure 1a and b upper panel]. The lung parenchyma was normal, and there were no lymphnodes on imaging. Magnetic resonance imaging of thoracic spine showed marrow edema in multiple thoracic vertebrae, irregular destruction of D10 vertebra and left psoas and paraspinal abscesses [Figure 1c and d lower panel]. Purified protein derivative test showed 23-mm induration. HIV, hepatitis B and hepatitis C serology were negative. The pus from the chest wall abscess was positive for *Mycobacterium tuberculosis* by cartridge-based nucleic acid amplification test and there was no resistance to rifampicin.

Address of correspondence: Dr. Mansoor C. Abdulla, Department of General Medicine, MES Medical College, Perinthalmanna - 679 338, Kerala, India. E-mail: drcamans@gmail.com

ORCID: https://orcid.org/0000-0002-7925-4438

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Abdulla MC. Metastatic tuberculous chest wall and massive psoas abscesses in an immunocompetent patient. Int J Mycobacteriol 2020;9:98-9.
Abdulla: Multiple tuberculous abscess in an immunocompetent patient

The chest wall and psoas abscesses were drained using a pigtail catheter and he was started on antitubercular therapy. After 9 months of antitubercular therapy, he was asymptomatic and had radiological clearance of the abscesses.

**DISCUSSION**

Extrapulmonary manifestations can be seen in 15% of the notified incident TB cases globally. Musculoskeletal TB accounts for 1%–5% of tuberculous infections. Tuberculous spondylitis is the most common form of musculoskeletal TB (50%). TB of the chest wall constitutes 1%–5% of all cases of musculoskeletal TB and 1% to 2% of total TB patients. Psoas abscess can occur either due to the extension of infection from vertebrae or as primary psoas abscess due to direct invasion from other adjacent structures or from hematogenous spread. Isolated muscle abscess without coexisting active skeletal or extraskeletal TB was previously reported in various locations including psoas muscle.

Our patient presented with a painful swelling over the right side of chest wall and was detected to have a psoas abscess on imaging. The patient did not have any clinical features suggestive of psoas abscess. The classical triad of fever, limp, and back pain is present in <30% of patients with psoas abscess. However, most of the patients presents with one among the symptoms. Asymptomatic psoas abscess is unusual. Hence, it is important to screen for the presence of silent psoas abscess in patients with chest wall abscess and Potts disease by imaging modalities.

The lung parenchyma was normal and there was no lymph node enlargement on imaging in the patient described here. TB chest wall abscesses can present as an isolated lesion without any primary foci in the lung parenchyma or in the ribs. Chest wall TB can be secondary to either hematogenous dissemination associated with activation of a dormant tuberculous focus or a direct extension from a lymphadenitis of chest wall. Our patient had a massive lower chest wall abscess extending to abdominal muscles and an asymptomatic large psoas abscess detected on imaging due to spine TB which responded well to anti-tubercular therapy and drainage without surgical measures. The concomitant presence of two massive TB abscesses in an immunocompetent patient was not reported previously.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understand that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

**REFERENCES**