

An Atypical Presentation of Tuberculosis Lymphadenitis

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ABSTRACT

Tuberculosis (TB), one of the oldest diseases of human, remains a global health problem especially in developing countries. Tuberculosis is classified as pulmonary or extrapulmonary. Tuberculosis lymphadenitis is the most common form of extrapulmonary TB. In this report, we present a patient with TB lymphadenitis who had atypical multiple lymph node involvement similar to malignancies without symptoms of lung disease. An 81-year-old male presented with a 3-month history of a growing swelling in the cervical region. In the month prior to presentation another swelling developed in the right axillary region. Physical examination revealed multiple lymphadenopathies in the cervical and axillary regions. A computerized tomography revealed lymphadenopathy at right axillary region 5 × 2 cm in diameter, a cystic mass or abscess at right posterior cervical region 3 × 2 cm in diameter and multiple lymphadenopathies in the cervical regions. Thoracic tomography revealed fibro-atelectasis, thick fibrotic bands and increased reticulonodular density in both lungs which were reported as reactivation of TB. An excisional biopsy was performed which revealed granulomatous inflammatory process with caseous necrosis. Acid-resistant bacteria were detected from microbiological assessment of both the pus of the mass and the nodular lesion via polymerase chain reaction. The diagnosis was reactivated TB lymphadenitis. Although multiple lymphadenopathies accompanied with weight loss suggest malignancies, TB must also be considered in the differential diagnosis.

Keywords: Multiple cervical lymphadenopathies, tuberculosis, tuberculosis lymphadenitis.

INTRODUCTION

Tuberculosis (TB), one of the oldest diseases of humans, remains a global health problem especially in developing countries. It is classified as pulmonary or extrapulmonary. When the lesions of TB occur in organ systems outside the lungs, such as lymph nodes, pleura, gastrointestinal tract and central nervous system, the disease is classified as extrapulmonary TB (1). Approximately 22%–30% of patients with TB have extra-pulmonary disease (2). Tuberculosis lymphadenitis is the most common form of extrapulmonary TB and accounts for approximately 35%–40% of all extrapulmonary diseases (2, 3). Posterior triangle nodes, deep cervical nodes, submental and supraclavicular nodes are the most commonly involved nodes in TB lymphadenitis (2, 3). Involvement of other lymph nodes such as axillary, inguinal and mesenteric lymph nodes may also occur. The involvement of lymph nodes in adults is generally unilateral and single.

In this report, we present a patient with atypical multiple lymph node involvement of TB lymphadenitis without complaints about a lung disease.

CASE REPORT

An 81-year-old male presented with a 3-month history of a growing swelling at the cervical region. In the month before presentation, another swelling was noted at the right axillary region. He also complained of fatigue and weight loss. There were no complaints about lung diseases such as cough or sputum. Physical examination revealed multiple lymphadenopathies at cervical and axillary regions (Fig. 1). An erythematous nodular lesion was observed in the skin of the anterior chest (Fig. 2). Because of multiple gross lymphadenopathies and weight loss, the patient was thought to have a malignancy. A computerized tomography was performed which revealed a 5 × 2 cm in diameter lymphadenopathy

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Fig. 1: The appearance of lymphadenopathies at right axillary, right supraclavicular and left supraclavicular regions.

at right axillary region, a 3×2 cm in diameter cystic mass or abscess at right posterior cervical region and multiple lymphadenopathies in the cervical regions. Thoracic tomography revealed fibro-atelectasis, thick fibrotic bands and increased reticulonodular densities in both lungs which were reported as reactivation of TB. Fine needle aspiration biopsy of the mass at posterior cervical region was non-diagnostic. An excisional biopsy was performed which revealed granulomatous inflammatory process with caseous necrosis. Acid-resistant bacteria were detected from microbiological assessment of both the pus of the mass and the nodular lesion via polymerase chain reaction. The diagnosis was reactivated TB lymphadenitis. Anti-TB treatment was given. The patient is still being followed-up.

DISCUSSION

Tuberculosis lymphadenitis is the most common extrapulmonary form of TB. The most common agent is *Mycobacterium tuberculosis* complex in adults with a ratio of 95%, while mycobacteria other than TB (MOTT) is more common in children (2, 4). While MOTT generally involve upper respiratory tract or tonsils and spread directly to closer lymph nodes, *Mycobacterium* family causes a disease in lungs and spreads lymphogenously or haematogenously to other tissues (4).

The clinical manifestation depends on the involved site. Patients with TB lymphadenitis generally present with a painless mass which may be fixed to surrounding structures (5). Approximately 16% of patients have previous TB history (2). Additional symptoms may be observed in 43% of patients. The most common additional symptoms are fever, weight loss and fatigue (2, 5).

The diagnosis of the disease depends on clinical suspicion, histological assessment of granulomatous lesions and microbiological detection of the bacteria. Radiological images may be helpful for diagnosis.



Fig. 2: The erythematous lesion at anterior chest region.

Postero-anterior radiography is positive at only 14%–20% of TB lymphadenitis (2). Ultrasonography may reveal a capsulated, hypoechoic mass. Computerized tomography and magnetic resonance imaging may be helpful for differential diagnosis. The accurate diagnosis can be established by detecting the acid-resistant bacteria in tissue samples. Several methods such as culture, polymerase chain reaction and Erlich–Ziehl–Nielsen staining can be used for detecting the bacteria (1, 2).

Anti-TB drugs are important for the management of TB lymphadenitis. Surgery is reserved for diagnosis of the patients who have negative results in fine needle aspiration biopsy, and for treatment of fistula formation.

CONCLUSION

Tuberculosis still remains as a global health problem. Although multiple lymphadenopathies accompanied with weight loss suggest malignancies, TB must also be considered in the differential diagnosis.

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