Isolated Primary Tuberculosis Of Inguinal Lymph Nodes: An Acute Presentation

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Citation

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Abstract

Lymphadenopathy is a common manifestation of tuberculosis and is most commonly seen in children and adults alike with the involvement of the cervical group of lymph nodes. Isolated inguinal tubercular lymphadenopathy has been described but is a very rare presentation of tuberculosis. We present a case report and a review of literature of isolated tubercular inguinal lymphadenopathy presenting as acute lymphadenitis, which is even rarer.

INTRODUCTION

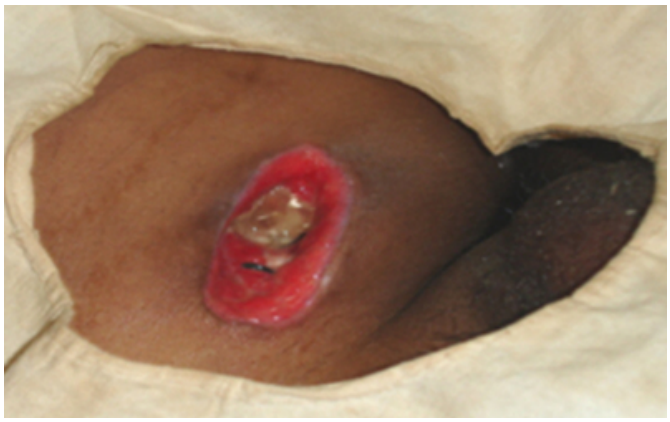
Tuberculosis (TB) is a chronic granulomatous infection caused by Mycobacterium tuberculosis, an acid-fast bacillus ([1]). Pulmonary TB is the commonest form of this disease but can occur in any organ. A common extrapulmonary manifestation is tubercular cervical lymphadenopathy, which involves lymph nodes of the neck ([2]). Tubercular infection of the inguinal group of lymph nodes occurs rarely and is usually associated with the cutaneous type (scrofuloderma or lupus vulgaris) of TB. Primary or isolated inguinal lymphadenopathy without any other focus of TB is even a rarer presentation ([3]). We present a case of isolated inguinal tubercular lymphadenopathy in an immunocompetent patient without pulmonary/cutaneous involvement.

CASE REPORT

A 13-year-old boy presented with a swelling over the left upper thigh of 5 days duration which was associated with pain and fever for 3 days, fever being high grade and continuous. There was no history of trauma to the left lower limb and general examination was unremarkable. On local examination, the patient had a soft tissue swelling in the left upper thigh measuring 6x3cm in the subcutaneous plane, firm in consistency and tender with restricted mobility. No other lymph nodes were palpable. A provisional diagnosis of acute lymphadenitis was made and antibiotics and analgesics were started. With only mild improvement, after 7 days, fine needle aspiration cytology (FNAC) was done and was reported to be acute nonspecific lymphadenitis and the pus was sterile. Though the drugs were continued, after 10 days the swelling became fluctuant and pus was aspirated. Repeated aspirations failed to resolve the condition and hence, the patient was taken up for incision and drainage. Intraoperatively, the presence of multiple matted lymph nodes prompted a biopsy. Histopathological examination revealed TB and subsequent search failed to reveal any primary foci. The patient was started on antitubercular therapy (ATT), to which he responded well and the wound healed thereafter (Figure 1).

Figure 1

Figure 1: Granulating inguinal wound.



DISCUSSION

Tuberculous lymphadenitis, known centuries ago as the King's evil and as scrofula when occurring in the cervical region, continues to be a common cause of extrapulmonary

TB ([2]). It is responsible for up to 43 percent of all of peripheral lymphadenopathy in the developing world and its prevalence in children up to 14 years of age in rural India is approximately 4.4 cases per 1000 ([3]). Classically, the disease affects children and most of the times it involves the lymph nodes draining the head and neck. Isolated inguinal tuberculous lymphadenitis is a very rare condition. In two Indian series of 80 and 105 patients with peripheral tuberculous lymphadenitis, inguinal involvement was observed in 7 and 3 patients, respectively ([4]). There is only one report from India involving a male patient with a history of multiple, unprotected sexual contacts who presented with isolated unilateral tuberculous lymphadenitis ([5]).

Humans are the only known reservoir for Mycobacterium tuberculosis and it is transmitted by airborne droplet nuclei, which may contain fewer than 10 bacilli. Exposure to TB occurs by sharing common airspace with a patient who is infectious. Risk factors for developing TB include: contact with persons having active TB and immunocompromised states - such as in diabetes, HIV infection, chemotherapy, prolonged steroid use and old age ([2], [3]).

Diagnosis is difficult often requiring biopsy for several times. The characteristic diagnostic histology is the tuberculous granuloma (caseating tubercule), composed of giant multinucleated cells (Langhans cells), surrounded by epithelioid cell aggregates, T-cell lymphocytes and few fibroblasts. Granulomatous tubercules evolve to central caseous necrosis and tend to become confluent, replacing the lymphoid tissue ([6]).

Tuberculin skin testing (Mantoux test) is the most widely available test for diagnosing TB infection in the absence of active disease. It involves an intradermal injection of 5 tuberculin units of purified protein derivative. The response is measured as the amount of induration at 48-72 hours. Interpretation of skin testing depends on the size of induration, age and patient risk factors ([7]).

For the initial empiric treatment of TB, patients are started on a 4-drug regimen: isoniazid, rifampin, pyrazinamide and either ethambutol or streptomycin. After 2 months of therapy, pyrazinamide can be stopped. Isoniazid plus rifampin are continued as daily therapy for 4 more months. If isolated isoniazid resistance is documented, discontinue isoniazid and continue treatment with rifampin, pyrazinamide and ethambutol for the entire 6 months. Rifabutin, cycloserine, capreomycin and streptomycin can also be used in the treatment of TB if drug resistance has been shown to be present ([6], [7]).

Treatment monitoring is more complex due to peculiar behavior of TB lymph nodes. Situation has become worse due to sharp increase in the incidence of atypical mycobacteria. Clarithromycin, ethambutol, rifabutin and amikacin seem to act best on atypical mycobacteria-induced lymphadenitis. Along with rise of multi-drug resistance (MDR), drug-resistant TB lymphadenitis cases are also on the rise ([8]).

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