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Primary Inguinal Tuberculous Lymphadenopathy

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Abstract

Tuberculous lymphadenitis, especially cervical group, remains a common extrapulmonary manifestation of tuberculosis(TB) whereas inguinal tubercular lymphadenitis is a less common presentation. A 42-year old lady presented with one month history of painless, enlarging left inguinal lymphadenopathy. She had no clinical improvement in spite of multiple empirical antibiotic treatments. There was no history of recent unprotected sexual intercourse, urethral discharge, genital ulcer, previous tuberculosis exposure, fever, weight loss, or trauma to the lower extremities. On clinical examination, an enlarged, 4 x 3cm left side inguinal lymph node was palpated. General and systemic examinations were unremarkable. Fine Needle Aspiration Cytology(FNAC) was inconclusive hence planned for excision biopsy. Histopathology showed necrotizing granulomas with multinucleated giant cells. In this case report, we present a primary or isolated inguinal tuberculous lymphadenitis without pulmonary or cutaneous TB which is a rare presentation and also highlight the need to look beyond the venereal causes.

Keywords: Primary inguinal TB, Extrapulmonary TB, Inguinal Lymphadenopathy, Inguinal Buboes

Introduction

Tuberculous lymphadenitis, known centuries ago as the King's evil and as scrofula when occurring in the cervical region. Tuberculous lymphadenitis is the foremost common extrapulmonary manifestation of TB which comprises 30–50% of these cases. Among which cervical lymph nodes are involved in 57% of cases, supraclavicular lymph nodes in 26%, submandibular lymph nodes in 3%, and axillary lymph nodes in 12%. Isolated inguinal tuberculous lymphadenitis is uncommon, representing up to 8% of cases in all reported series so far. In this case report, we present an enthralling case of primary isolated inguinal tuberculosis without pulmonary TB.

Case Presentation

A 42-year old lady had complaints of painless swelling in the left inguinal region for one month. There was no

history of recent unprotected sexual intercourse, urethral discharge, genital ulcer, previous tuberculosis exposure, fever, weight loss, or trauma to the lower extremities. She is a married woman with no premarital or extramarital contact history. On examination, an enlarged, 4 x 3 cm, well defined inguinal lymphnode was noted on the left side. Examination of external genitalia, lowerlimb, general and systemic examination did not reveal any abnormality.

- All routine blood investigations were found to be within normal limits.
- Serological screening for retroviral status was non-reactive.
- The chest x-ray, ultrasonography abdomen and pelvis were normal.
- FNAC was inconclusive.

In view of inconclusive FNAC, she was taken up for excision biopsy. Intraoperatively, a lymphnode of size 6.5 x 3.5 x 2.5cm was found and excised in toto(FIG 1 and FIG 2).

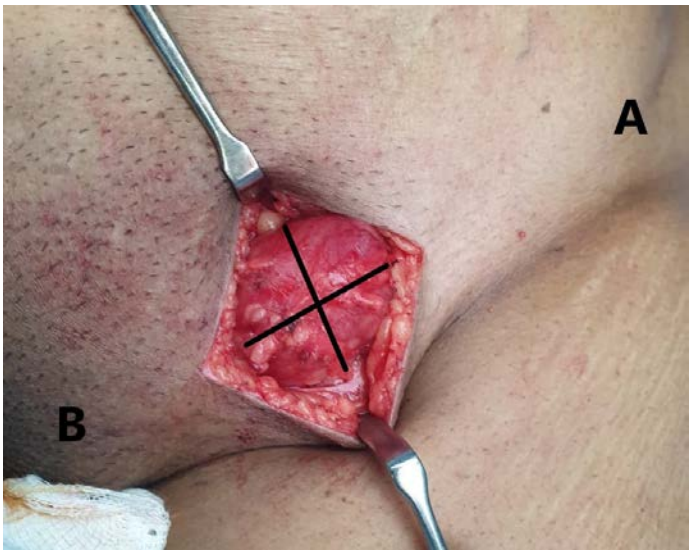

Fig. 1: A lymphnode of size 6.5 x 3.5 x 2.5cm in the left inguinal region (A-Anterior superior iliac spine, B-Pubic tubercle)

Fig 2: Excised lymphnode specimen

Histopathology revealed necrotizing granulomatous inflammation with Langhans type of multinucleated giant cells and acid fast bacilli(FIG 3 and FIG 4).

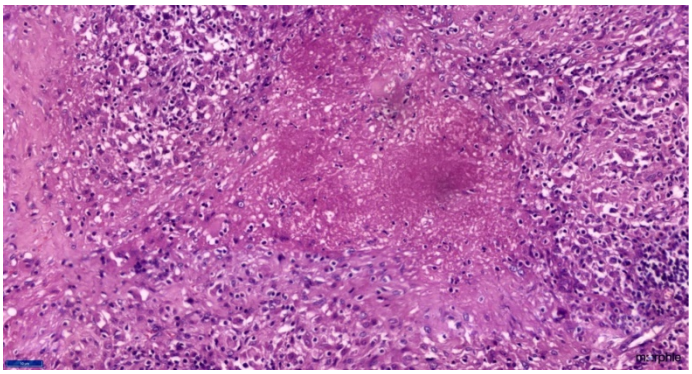

Fig 3: Necrotizing granulomatous inflammation

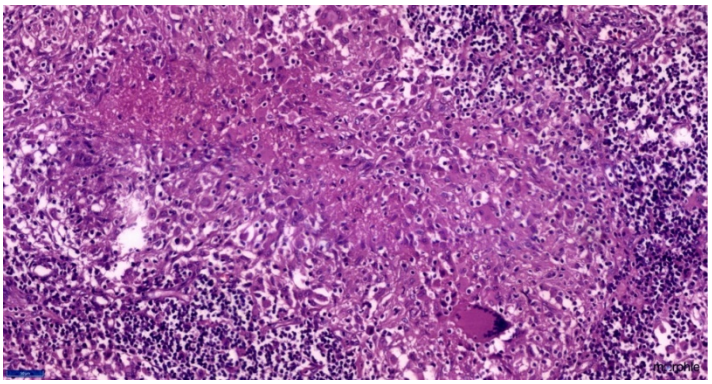

Fig 4: Langhans type of multinucleated giant cells

Pulmonologist opinion obtained and advised antituberculosis treatment under DOTS for six months. Patient was followed periodically and asymptomatic.

Discussion

Hippocrates was the first to illustrate the term "buboes." Inguinal and femoral buboes are defined as localized enlargement of lymph nodes in the groin that are painful and may or may not be fluctuant.[1]

Table 1: Inguinal buboes are classified into:[2]

Venereal	Non venereal
• Chancroid • Lymphogranuloma venereum • Syphilis	• Tuberculosis • Lymphoma • AIDS • Atypicalmycobacterial infection • Pyogenic infection of the leg • Metastatic

A. Pathogenesis

1. Hematogenous dissemination from a subclinical pulmonary focus and isolated secondary involvement of the inguinal nodes
2. Lymphatic spread from endosalpinx around the round ligament to the inguinal nodes[1]

B. Diagnosis

Tuberculous lymphadenopathy is difficult to differentiate from other causes of peripheral lymphadenopathy in the absence of pulmonary tuberculosis. Inguinal lymphadenopathy within the tropical countries is mostly due to chronic infection associated with bare foot walking and repeated trauma to the feet followed by lymphatic filariasis. A high index of suspicion is therefore required in regions where tuberculosis is more prevalent.[3]

Fine-needle aspiration cytology is a trustworthy diagnostic tool for TB adenitis. Moreover, FNAC prevents the risk of development of scar or fistula, frequently associated with the surgical biopsy. A biopsy is preferred, only if FNAC is inconclusive.[4]

C. Management

Anti-tubercular treatment(ATT) will be effective in tuberculous lymphadenitis and also gives exemplary results in the absence of complications. Surgical excision is associated with unfavourable outcomes when compared to medical treatment alone or medical treatment with aspiration of the node. Surgery is required only in the presence of complications such as sinus, ulcer or abscess.[5]

If a node is compressing a vital structures or in a cosmetically sensitive areas, prednisolone 40 mg per day for 6 weeks followed by gradual tapering over the next 4 weeks, can be given along with ATT.[6]

D. Certain difficulties encountered during treatment:[7]

1. Appearance of newly involved nodes,
2. Enlargement of the previously affected nodes,
3. Development of fluctuation,
4. Appearance of sinus tracts,
5. Residual lymphadenopathy after completion of treatment,
6. Relapses.

E. Managing these difficult situations by:[8]

1. Document all the possible sites of involvement, nature and size of the involved lymph nodes at the initiation of treatment.
2. Find out any co-morbidities and treat it at the same time.
3. Most nodes that enlarge during therapy or appear afresh will eventually respond to treatment. Only close follow up is needed.
4. Do aspiration under aseptic precautions if there is fluctuation in one or more lymph nodes.

5. Any secondary bacterial infection should be handled appropriately.
6. En bloc resection of the involved lymph node is advised if the condition worsens after 8 weeks of therapy to avoid sinus. If non healing sinus appears, it needs resective surgery.
7. If any residual lymph nodes, it should be observed closely. Excisional biopsy is indicated if increase in size or appearance of symptoms. Most of these patients will respond to retreatment with the same regimen.
8. In relapsed cases and non responders, obtain prompt sensitivity testing for the isolated causative agent and modify the chemotherapy agents accordingly.
9. Since mycobacterium avium-complex is the commonest atypical organism causing lymphadenopathy in HIV positive patients, it should be managed on clarithromycin based drug regimens.

Proper care in diagnosis, evaluation and close monitoring of the case during treatment are the keys to success in the management of lymph node tuberculosis.

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