

Images in Clinical Tropical Medicine

Isolated, Unilateral Inguinal Tuberculous Lymphadenitis

Isabel Ramírez^{1,2*}

¹Internal Medicine, Infectious Diseases, Hospital Pablo Tobón Uribe, Medellín, Colombia; ²Universidad de Antioquia, Medellín, Colombia

A 17-year-old heterosexual man presented with a 3-month history of a painless, enlarging inguinal lymph node and multiple discharging sinuses. There had been no clinical improvement despite multiple empirical antibiotic treatments for other infections which share similar clinical presentations, such as lymphogranuloma venereum. Specific details in reference to diagnosis and treatment could not be obtained (Figure 1). There was no history of recent unprotected sexual intercourse, previous tuberculosis (TB) exposure, symptoms suggestive of other systemic illnesses, fever, weight loss, cough, sore throat, urethral discharge, genital ulcer, or trauma to the lower extremities. On physical examination, an enlarged, 4 × 3-cm inguinal lymph node was noted; the remainder of the examination was unremarkable. The chest X-ray showed no abnormalities and a test for human immunodeficiency virus was

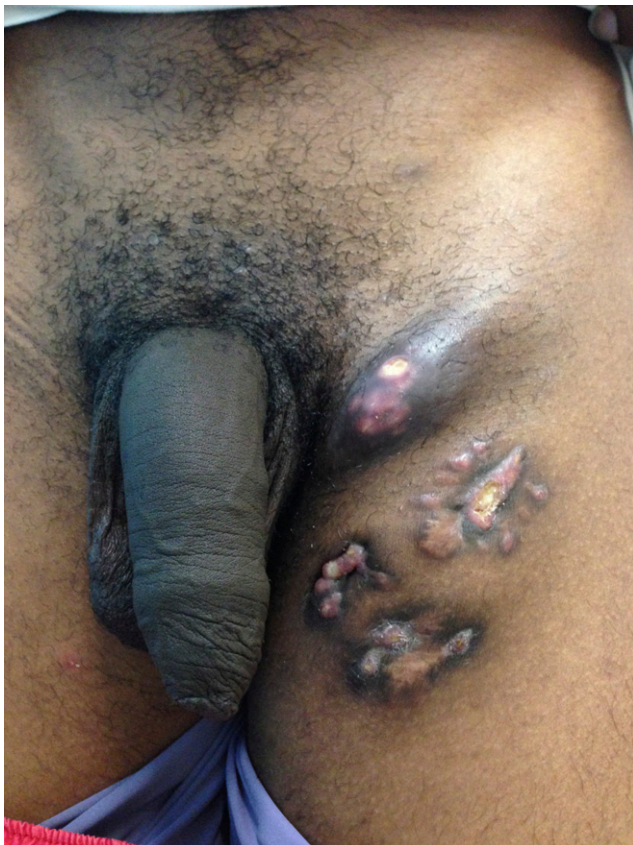


FIGURE 1. Isolated unilateral tuberculous lymphadenitis. This figure appears in color at www.ajtmh.org.

negative. The patient was evaluated for syphilis, but not for other sexually transmitted diseases, given that he had no history of recent unprotected sexual exposure, no urethral discharge, or genital ulcer. Histologic examination of tissue obtained by an excisional biopsy showed granulomas with multinucleated giant cells (Figure 2) and acid-fast bacilli (Figure 3); culture grew *Mycobacterium tuberculosis*. Standard antituberculous treatment for 6 months was initiated. Clinical response was observed after 2 months of treatment.

In the initial diagnosis of inguinal lymphadenitis, it is important to consider the potential etiologies, both infectious and noninfectious diseases. Painless lymphadenitis is usually due to toxoplasmosis, cat-scratch disease, syphilis, and TB; however, it can be painful at the beginning, and it can occur bilaterally. Painful unilateral lymphadenopathy can be caused by *Chlamydia trachomatis* and *Haemophilus ducreyi*; however, these are usually associated with urethral discharge or a genital ulcer. Other potential etiologies include secondary bacterial infection of genital scabies or pediculosis pubis, plague, pyogenic infection of the leg, atypical mycobacterial infections, and persistent generalized lymphadenopathy of AIDS. Noninfectious causes must also be considered, such as metastatic lymph node lesions and lymphoma.

The initial evaluation should include a history of recent sexual contact and testing for syphilis, *Cytomegalovirus*, Epstein–Barr virus, *Toxoplasma gondii*, hepatitis B and C virus, herpes simplex virus, and HIV. Cervical cultures for *Neisseria gonorrhoeae* and *Ureaplasma urealyticum*, polymerase chain reaction (PCR) for *Mycoplasma hominis*, and nucleic acid amplification test for *C. trachomatis* should be obtained if the patient is sexually active. Empirical treatment is not recommended given that the causes can be

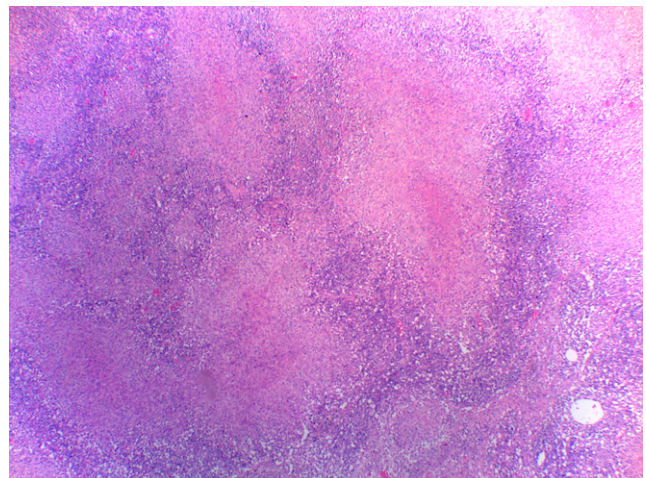


FIGURE 2. Histologic examination of lymph node tissue. Hematoxylin and eosine stain showing multiple granulomas with multinucleated giant cell (×100). This figure appears in color at www.ajtmh.org.

*Address correspondence to Isabel Ramírez, Internal Medicine, Infectious Diseases, Hospital Pablo Tobón Uribe, calle 78B#69-240, Medellín, Colombia. E-mail iramirez@hptu.org.co

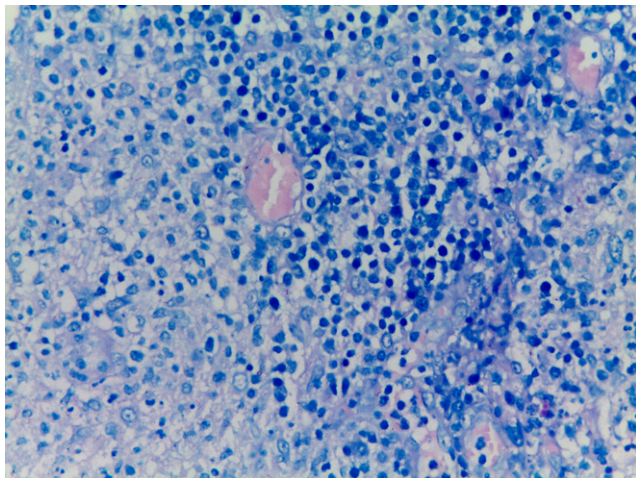


FIGURE 3. Ziehl-Neelsen stain showing acid-fast bacilli of *Mycobacterium tuberculosis* ($\times 100$). This figure appears in color at www.ajtmh.org.

multiple; therefore, it is always important to make the etiological diagnosis.

Tuberculous lymphadenitis is the most common extrapulmonary manifestation of TB; it comprises 30–50% of these cases.¹ 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%.^{2,3} Up to 17% of cases are bilateral and 78% of cases involve between one and three nodes. Isolated inguinal tuberculous lymphadenitis is infrequent, representing up to 8% of cases in all reported series.^{2,4} Active pulmonary TB occurs infrequently in immunocompetent patients with TB lymphadenitis; however, up to 15% of tuberculous lymphadenitis is associated with pulmonary TB.⁵ Therefore, a chest X-ray must be performed as part

of initial evaluation, and additional tests must be carried out based on clinical symptoms and findings. A fine needle aspiration is essential to make the diagnosis in tuberculous lymphadenopathy, as it can reveal granulomas in 61% of cases and a positive culture in 62%; for surgical specimens, the diagnostic yield is 88% and 71%, respectively.^{3,4} A 6-month TB treatment regimen is recommended as standard therapy. In countries with a high prevalence of mycobacterial resistance, a four-drug treatment regimen (isoniazid, rifampicin, pyrazinamide, and ethambutol) should be preferred within the first 2 months.

Received March 10, 2018. Accepted for publication December 13, 2018.

Author's addresses: Isabel Ramírez, Internal Medicine, Infectious Diseases, Hospital Pablo Tobón Uribe, Medellín, Colombia, and Universidad de Antioquia, Medellín, Colombia, E-mail: iramirez@hptu.org.co.

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

REFERENCES

1. Peto HM, Pratt RH, Harrington TA, LoBue PA, Armstrong LR, 2009. Epidemiology of extrapulmonary tuberculosis in the United States, 1993–2006. *Clin Infect Dis* 49: 1350–1357.
2. Thompson MM, Underwood MJ, Sayers RD, Dookeran KA, Bell PRF, 1992. Peripheral tuberculous lymphadenopathy: a review of 67 cases. *Br J Surg* 79: 763–764.
3. Polesky A, Grove W, Bhatia G, 2005. Peripheral tuberculous lymphadenitis. *Medicine* 84: 350–362.
4. Dandapat MC, Mishra BM, Dash SP, Kar PK, 1990. Peripheral lymph node tuberculosis: a review of 80 cases. *Br J Surg* 77: 911–912.
5. Geldmacher H, Taube C, Kroeger C, Magnussen H, Kirsten DK, 2002. Assessment of lymph node tuberculosis in northern Germany a clinical review. *Chest* 121: 1177–1182.