Current Diagnosis of Tuberculous Lymphadenitis

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TUMS

- Tuberculous lymphadenitis is the most common form of extrapulmonary tuberculosis

- The common causative agent is Mycobacterium tuberculosis

- Cervical chain involvement is most common location

- Tuberculous lymphadenitis is more common among women than among men (1.4:1)
- The peak age range in recent series has been 30–40 years.

CLINICAL FEATURES

- Slowly progressive, painless swelling of a single group of lymph nodes
- The duration of symptoms is typically 1–2 months, varying from 3 weeks to 8 months
- Median lymph node size is 3 cm, but nodes may be up to 8–10 cm in diameter

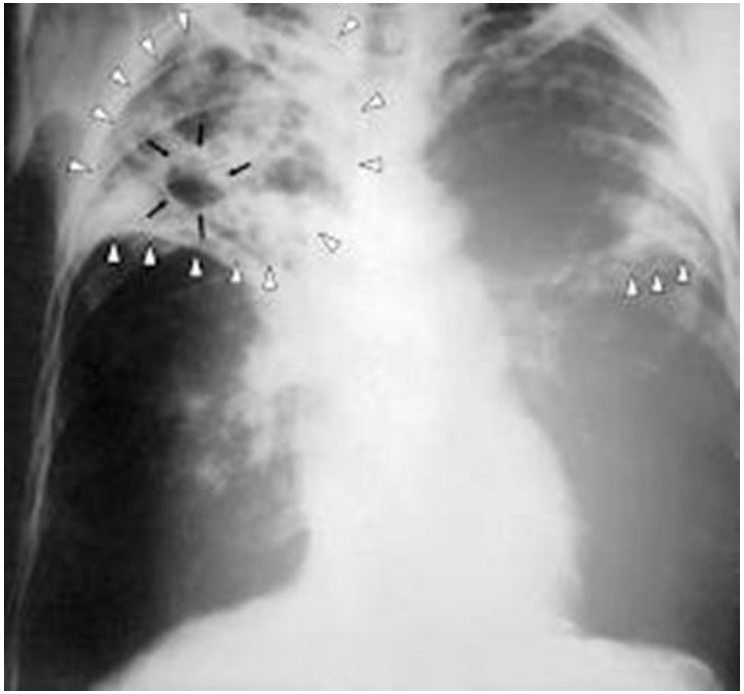
- A draining sinus may be present in 4%–11% of cases

- Unilateral involvement of 1–3 nodes has been noted in 85% of cases

- Node tenderness during examination is noted in only 25 % of cases

- Rates of systemic symptoms(fever and weight loss) were reported 15 % in HIV-negative patients and 60 % in HIV-positive patients

- Concomitant pulmonary tuberculosis is reported in 30% of patients with higher rates among HIV-positive patients



Diagnosis

- Diagnosis may be challenging and is not always possible with conventional methods, due to paucibacillary nature of samples.

Ancillary Tests

- TST: sensitivity 86%, specificity 67%

- IGRA: sensitivity 86%, specificity 87%

Ancillary Tests

- Ultrasonography
- CT-scan

Diagnosis

- Definitive diagnosis: demonstration of M. tuberculosis by culture or polymerase chain reaction

- AFB stain result indicates a mycobacterial etiology and has excellent specificity for M. tuberculosis in adults.

Diagnosis

Histologic features:

- caseating granulomas
- noncaseating granulomas
- nonspecific lymphoid infiltrates
  support a diagnosis of probable tuberculosis

Differential Diagnosis

- Atypical mycobacteria (including M. avium complex, M. scrofulaceum and …)
- Sarcoidosis
- Actinomycosis
- Kikuchi's disease

Diagnosis

- 1)FNA
- 2)Biopsy (Excisional)

Diagnostic Tests

- FNA is safe, less invasive, and more practical than biopsy

- FNA has emerged as a first-line diagnostic technique, especially in tuberculosis-endemic countries (especially in Immunocompromised hosts)

- The diagnostic accuracy of FNAc for tuberculous cervical lymphadenitis varies considerably among different studies, with a reported sensitivity of 25–100%.

This variation might be due to:

- Geographical location and endemicity
- Expertise of the clinician and pathologist
- The time lapsed before the lymphadenopathy comes to the patient's attention.

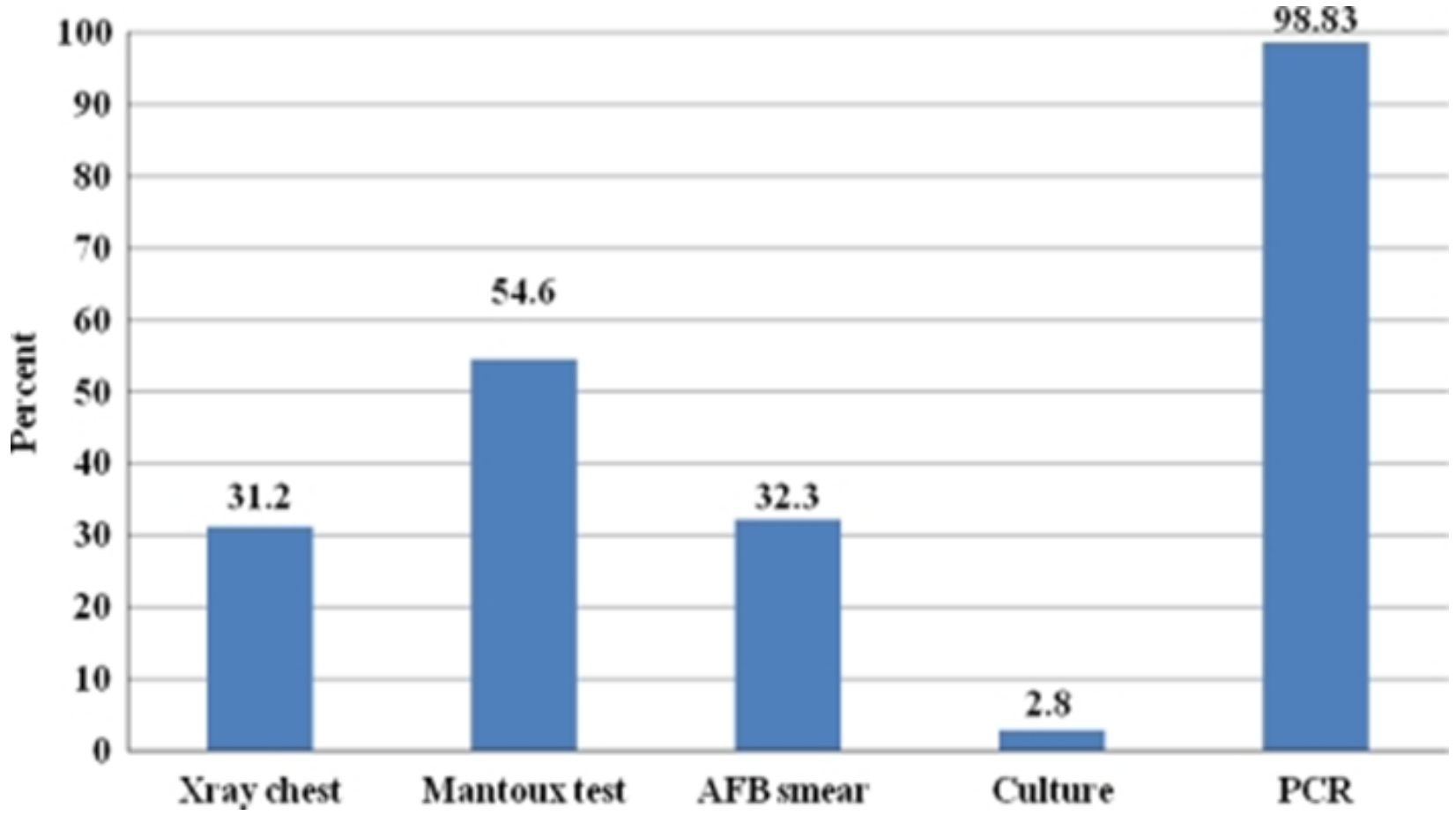
- When positive culture results were combined with detection of AFB, the sensitivity of FNA specimens was 46% and specificity was 100%

- Nucleic acid amplification tests may provide a rapid, specific, and sensitive means of diagnosis

- A systematic review of NAAT in tuberculous lymphadenitis revealed highly variable and inconsistent results: (sensitivity, 2%–100%; specificity, 28%–100%)

Extra pulmonary tuberculosis.

Indian J Clin Biochem. 2011 Jul;26(3):269-73



- Excisional biopsy is the most invasive approach to diagnosis.
- It has the highest sensitivity(80%) and may produce a more rapid and favorable symptomatic response
- Rare complications of biopsy include postsurgical pain, wound infection, sinus formation, and scar

- IDSA guidelines recommend surgical excision only in unusual circumstances
- Excisional biopsy has been recommended in cases involving multiple nodes

- Expert surgical care is available
- The cosmetic and anesthetic considerations are not a contraindication

- Persistent nodal discomfort after primary response to medical treatment

- Disease is caused by drug-resistant organisms.

Conclusion

- The correct diagnosis is related on high index of clinical suspicion
- The request for performing mycobacterial laboratory tests (FNA, Biopsy)
- Careful histologic examination of tissue samples
- Close collaboration between the clinician, mycobacteriologist and pathologist.