

**DISSEMINATED TUBERCULOSIS IN PLHIV PRESENTED AS PYREXIA OF
UNKNOWN ORIGIN: A DIAGNOSTIC REVELATION****Dr. S. Santosh Kannan*, Dr. Rajshree Ramasethu** and Dr. Madhu *****

Department of General Medicine, MVJMC&RH.

***Corresponding Author: Dr. S. Santosh Kannan**

Department of General Medicine, MVJMC&RH.

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ABSTRACT

A patient presenting with a prolonged fever of unknown origin (PUO) with no identifiable source was diagnosed with disseminated tuberculosis (TB) through Fine Needle Aspiration Cytology (FNAC) of an axillary lymph node. The clinical presentation was atypical, and the diagnosis was challenging due to the absence of other obvious signs of TB or HIV co-infection. FNAC of the lymph node revealed granulomatous inflammation consistent with tuberculosis, prompting the initiation of anti-tuberculosis therapy (ATT). Following the commencement of ATT, the patient showed significant clinical improvement, with resolution of the fever and overall betterment of health. This case highlights the importance of considering TB in the differential diagnosis of PUO, even in the absence of classic symptoms. FNAC of lymph nodes proves to be an effective and minimally invasive diagnostic tool, allowing for early diagnosis and prompt treatment initiation, which led to a positive outcome in this patient.

KEYWORDS: Fever of Unknown Origin, Tuberculosis, Fine Needle Aspiration Cytology, Axillary Lymph Node, Granulomatous Inflammation, Anti-Tuberculosis Therapy, Diagnosis.

I. INTRODUCTION

Fever of unknown origin (PUO) remains a clinical challenge, often requiring extensive investigation to uncover its underlying cause. One of the more elusive diagnoses in this context is tuberculosis (TB), especially in immunocompromised patients such as those with Human Immunodeficiency Virus (HIV). The presentation of disseminated TB in HIV-infected individuals can be atypical, with subtle or absent signs of classic pulmonary involvement, making the diagnosis particularly challenging. This case presents an HIV-positive patient who presented with PUO, with no apparent source of infection despite extensive testing, including sputum examination and chest X-ray. The patient exhibited no classic symptoms of TB, and all routine investigations failed to confirm the diagnosis. However, Fine Needle Aspiration Cytology (FNAC) of an axillary lymph node ultimately revealed granulomatous inflammation characteristic of TB, leading to the initiation of anti-tuberculosis therapy (ATT). Following treatment, the patient showed a remarkable clinical improvement, highlighting the importance of considering disseminated TB in the differential diagnosis of PUO, especially in HIV-infected individuals. This case underscores the diagnostic value of FNAC in the identification of extrapulmonary TB, even in the absence of traditional diagnostic findings, and demonstrates the potential for recovery with appropriate therapy.

II. CASE REPORT

A 41 years old male who is a migrant worker from West Bengal, diagnosed with HIV in 2017 at DMCH Bihar, with poor ART compliance. He presented with a two-month history of high-grade fever with chills, odynophagia, reduced appetite, tingling sensations in the lower limbs, minimal cough, burning micturition, and intermittent epigastric burning. There were no signs of difficulty breathing, abdominal pain, vomiting, or bleeding. He had no history of hypertension, asthma, tuberculosis, thyroid disease, or diabetes.

On examination, the patient had pallor. Small vesicular lesions with an erythematous base were noted over his hard palate. His vital signs included a GRBS of 97 mg/dL, a pulse rate of 96 bpm, BP of 100/70 mmHg, respiratory rate of 16 per minute, and oxygen saturation of 97% on room air. There were palpable lymph nodes in the inguinal, bilateral axillary, and right supraclavicular regions, with the largest being 2.5 cm in the right axilla. Cardiovascular and respiratory examinations were normal. Abdominal examination revealed mild tenderness in the right hypochondrium and epigastric region, with a palpable spleen tip and a liver span of 13 cm.

Patient was tested positive for HIV ELISA with CD4 counts of 105. Patient was started with ART and Co-

Trimoxazole. Patient was further investigated with CBC, Urine routine & Blood culture, He was then treated with Acyclovir and β -lactam antibiotics, followed by Artesunate for fever and Fluconazole for odynophagia.

A CECT abdomen revealed multiple enlarged lymph nodes with necrotic centres, and FNAC of a peripheral axillary node confirmed necrotizing granulomatous lymphadenitis, suggestive of tuberculosis.

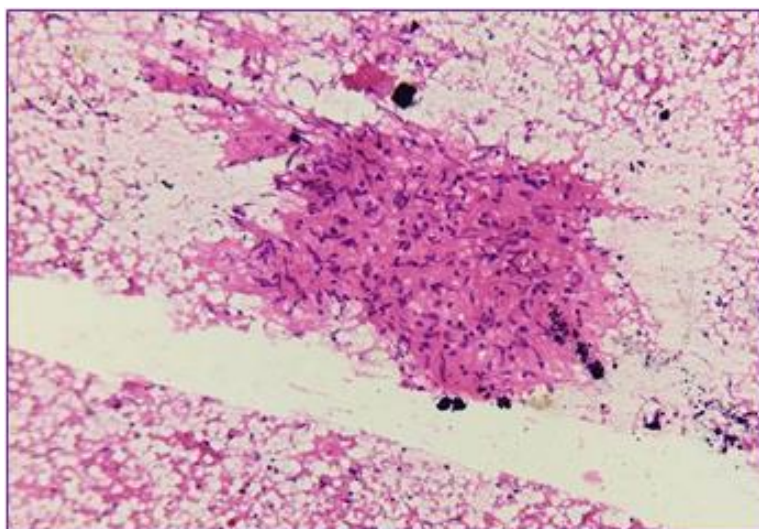


Image 1: Right Axillary Lymph node FNAC: Granuloma in a back ground of Caseous necrosis.

The patient was started on Anti-Tuberculosis Therapy (ATT), and Fever spikes decreased with regular monitoring. He was advised on the chronicity of the diseases and the need for ongoing treatment, with monthly follow-up at the Medicine OPD, ICTC, and NTEP centres. There was no incidence of IRIS during the course of therapy and on Follow ups Patient's condition improved and gained weight.

III. CONCLUSION

The challenge of diagnosing disseminated TB in HIV patients lies in the nonspecific nature of the presenting symptoms and the often-negative sputum tests, which was evident in this case.

Conventional diagnostic methods, such as chest X-rays and sputum smears, may fail to identify TB in HIV-positive patients due to the atypical presentations and lower bacterial load in sputum. In contrast, fine needle aspiration cytology (FNAC) of peripheral lymph nodes proved to be a valuable diagnostic tool. The FNAC findings of necrotizing granulomatous lymphadenitis with caseous necrosis are characteristic of TB and aligned with the findings seen in other studies, which have highlighted FNAC's role in diagnosing TB in HIV-infected individuals, particularly in cases of lymphadenopathy.

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