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AN UNUSUAL CASE OF PYREXIA OF UNKNOWN ORIGIN WITH TUBERCULAR ADENITIS

General Medicine

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ABSTRACT

Long-lasting fever of unknown origin (FUO) is a difficult and significant medical issue. The most common cause of FUO is tuberculosis, particularly in areas where it is endemic, such poor nations. We present a case of protracted FUO associated with cervico-mediastinal tuberculous lymphadenitis that has been investigated and followed up. Even if cultures and polymerase chain reactions for Mycobacterium tuberculosis are negative, tuberculosis should be kept in mind in the differential diagnosis of FUO cases with granulomatous lymphadenitis presenting as protracted or recurrent fever.

KEYWORDS

INTRODUCTION

Fever of unknown origin (FUO) is defined as fever not resolving spontaneously in the period expected for self-limited infection and whose cause can not be ascertained despite considerable diagnostic effort. In 1961, Petersdorf and Beeson introduced the definition that subsequently became standard namely, illness of more than three weeks' duration, fever higher than 38.3°C (101°F) on several occasions, and diagnosis uncertain after one week of study in hospital.'with uncommon presentations rather than rare disorders. In several series of pediatric and adult cases, the correct diagnosis was possible from the history, physical examination, and routine laboratory tests. Conversely, failure to utilize findings correctly, delay in ordering appropriate tests, and misinterpretation of test results have all contributed to missed diagnoses. Specialized noninvasive tests such as serology, seldom help except to confirm a diagnosis suggested by other findings. Among the infections responsible for classic FUO, abscesses, endocarditis, tuberculosis, and complicated urinary tract infections have consistently been some of the most important. These tend to vary in incidence according to locale.

Mycobacterium tuberculosis infects onethird of the population in the world, and it is estimated that in 1997 almost 8 million new cases of tuberculosis occurred worldwide, with more than half occurring in Southeast Asia. In addition, tuberculosis is the leading cause of death worldwide due to any single infectious agent.?

In this case report, we presented a case of tubercular adenitis. diagnosed by PET -CTscan(positron emission tomography scan)

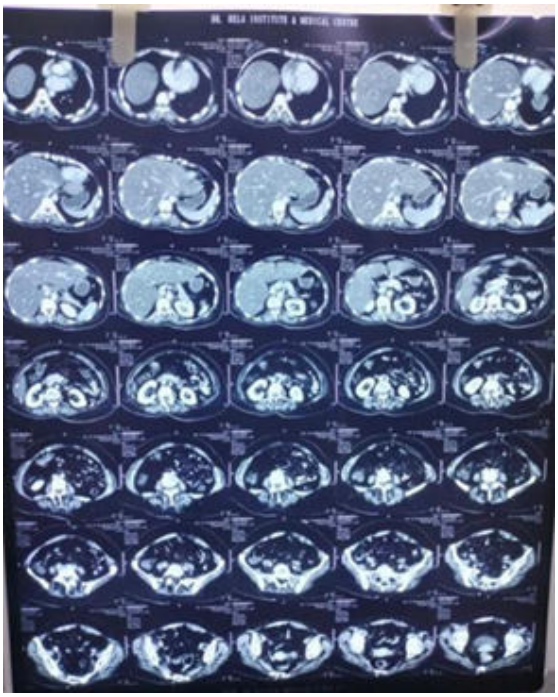
Case Course

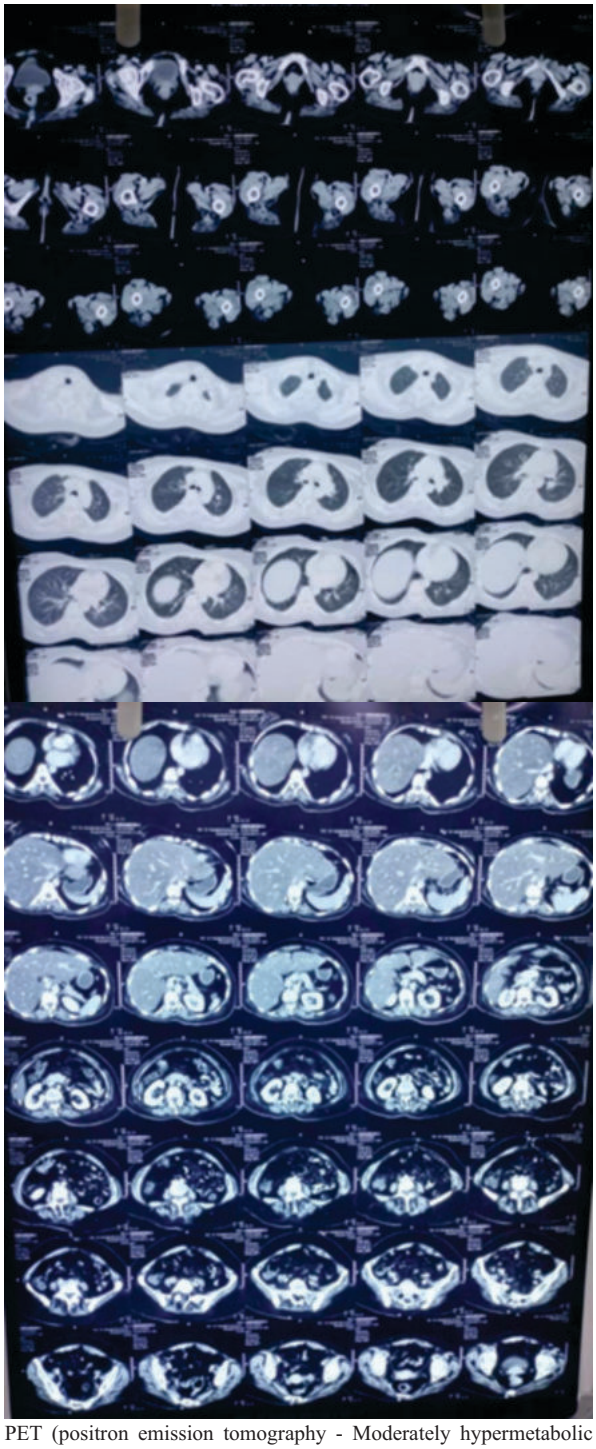
A 23-year-old male patient was admitted to the emergency department with complaints of fever, malaise, loss of appetite, weight loss.His medical history revealed a diagnosis of recurrent FUO with undetermined etiology 3months ago. He lost weight of 25 kg in the last six months.By the time, his fever had sustained.

On admission to the hospital, his physical examination revealed a fever of 39.8°C .The other physical examination findings were normal. Hemoglobin 10.3 g/L, hematocrit 29.1%, leucocyte 5.2 x 10°L and platelet count of 180 × 10°. The erythrocyte sedimentation rate was 90 mm/h, and C-reactive protein (CRP) was 75 mg/L. Biochemical and microbiological investigations were within normal limits. Ultrasound abdomen showed mild hepatomegaly, fattyliver. Patient was started on IV piptaz, azithromycin, tetracyclines,PPIs, anti-emetics, anti-pyretics, IV fluids, anti-histamines, cough suppressants and other supportive medications.Fever profile test was sent which showed negative. All blood and urine cultures taken on the day of admission were reported to be sterile. Serological tests for many pathogens, including hepatitis B and C and HIV, autoantibodies, and several tumor markers, were negative.. The chest x-ray showed no evidence of parenchymal disease. Sputum smears and cultures failed to grow acid-fast bacilli. HRCT was done which showed No ground glass opacity enlarged right and left paratracheal lymphnodes (1 cm)

CB-NAAT found to be no growth detected, Thyroid profile - normal, serum ACE level showed - 43, IGRA showed - positive. 2D ECHO was done on which showed - EF-70%. No RWMA, normal LV systolic function , Normal valves chambers. PET (positron emission tomography)whole body scan was done which found to be tubercular adenitis .patient was started on weight based ATT . A treatment protocol of isoniazid (300 mg/d), rifampicin (600 mg/d), pyrazinamide (1,500 mg/d), and streptomycin (1 g/d) was initiated empirically.

fever resolved gradually, and he became febrile on the third week of the treatment: CRF was 20 mg/L. In the sixth week of treatment, he began to put on weight, CRP became negative, and Hb was 11.1 g/L, but sedimentation rate was also 90 mm/h. Supporting our view of tuberculosis.patient discharged follow-up for medical optimization.





PET (positron emission tomography - Moderately hypermetabolic necrotic right upper paratracheal, left lower paratracheal and subcarinal nodes - tubercular adenitis.

DISCUSSION

Pyrexia of unknown origin (PUO) is a clinical syndrome characterized by persistent fever without an evident cause despite thorough initial evaluation. Tubercular adenitis, also known as scrofula, is a common extrapulmonary manifestation of tuberculosis (TB) that primarily affects the lymph nodes in the neck. The coexistence of PUO and tubercular adenitis poses a diagnostic challenge due to the diverse range of potential underlying causes and the need to differentiate between infectious.

CONCLUSION

This case report illustrates the diagnostic complexities inherent in pyrexia of unknown origin (PUO) and highlights the significance of a methodical diagnostic approach. Despite initial inconclusive investigations, persistent clinical diligence and collaboration between clinicians, microbiologists, and radiologists led to the identification of tubercular adenitis as the underlying cause of prolonged fever. The case underscores the importance of considering infectious etiologies, particularly tuberculosis, in PUO, especially in high-prevalence regions. Timely initiation of anti-tubercular therapy resulted in a favorable clinical response, emphasizing the therapeutic impact of accurate and prompt diagnosis. This report contributes to medical literature by elucidating the diagnostic challenges and therapeutic implications associated with tubercular adenitis presenting as PUO, aiming to enhance awareness and understanding among healthcare professionals.

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