



## AN UNUSUAL CASE REPORT OF AN ADULT FEMALE WITH PUO WITH PANCYTOPENIA EVALUATED AS SCROFULAR TB LYMPHADENITIS

### General Medicine

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### ABSTRACT

Tuberculous lymphadenitis is one of the most common presentation of extrapulmonary tuberculosis and TB lymphadenitis in cervical region is called Scrofula. Associated concomitant infections may badly affect the treatment and prognosis in these patients. Here we report a case of an adult female with pyrexia of unknown origin with cervical lymphadenopathy and pancytopenia evaluated as scrofula with concomitant hepatitis with guarded prognosis where timely diagnosis and treatment may help decreasing mortality and morbidity.

### KEYWORDS

#### INTRODUCTION

TB Lymphadenitis is one of the most common presentations of extrapulmonary tuberculosis (EPTB). TB Lymphadenitis in the cervical region is known as Scrofula. It can also be caused by non tuberculous mycobacteria.

Isolated peripheral tuberculous lymphadenopathy is usually due to reactivation of disease at a site seeded hematogenously during primary TB infection, probably years earlier.

Cervical TB Lymphadenitis occurs as a result of TB infection involving the tonsils, adenoids, and Waldeyer's ring.

Also miliary dissemination with prominent lymphnode involvement in the setting of primary infection can also occur.

#### Case Report

A 41 year old female presented to our ER with complaints of high grade fever associated with chills on and off since 1 month, loss of appetite and generalized weakness.

Patient gives history of fever since one month and was seeking medical advice at various other hospitals previously. On examination, patient was febrile with temp recording around 102°F; she was pale, tachycardic, blood pressures were around 90/70 and needed O2 support initially.

On detailed examination she had a mass in right cervical region 5\*3cm probably suggesting enlarged nodes. There were no other cutaneous lesions and no peripheral lymphadenopathy.

Per abdomen examination revealed no palpable mass. Routine blood samples were sent and patient was treated conservatively.

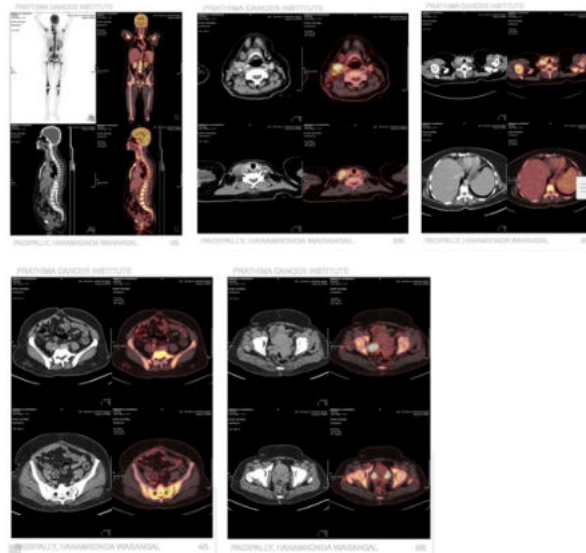
CBP showed pancytopenia. Her Hemoglobin levels were around 5.4, RBC count was 2.9 million/microL, Total leucocyte count was 3000/microL, platelets were 90k/microL.

Fever profile reports turned negative. Chest imaging showed no significant findings. Viral serology reports showed HBsAg positive status.

2 units of packed cells were transfused, and patient treated conservatively. Due to high index of malignancy suspicion, a PET CT was planned. She underwent a PET CT the very next day.

Her PET CT report suggested multiple metabolically active cervical

lymphnodes and diffuse bone marrow metabolic activity in axial and appendicular skeleton which was suspicious for lymphomatous involvement.



A Biopsy from right lower neck nodes was suggested to rule out malignancy. Histopathology report of biopsy from right cervical lymphnode showed large areas of caseous necrosis with karyorrhectic debris, focally walled off by epithelioid histiocytes, lymphocytes, plasmacells. No Reed Sternberg cells found and is consistent with necrotizing (caseating) lymphadenitis possibly of mycobacterial etiology and negative for malignancy.

Patient was treated conservatively and antituberculous treatment started: in two phases—intensive phase with four medications (isoniazid, rifampicin, pyrazinamide, ethambutol) for two months, then continuation phase (isoniazid, rifampicin) for four months.

#### DISCUSSION

Tuberculous lymphadenitis in the cervical region is known as Scrofula. Scrofula is derived from the latin word scrofa, a breeding sow supposedly prone to the disease. Robert Koch stated Scrofula, denoted an inflammatory kind of tumour, more particularly in the neck.

TB Lymphadenitis is among the most frequent presentations of

extrapulmonary tuberculosis (EPTB). TB is responsible for up to 43 percent of peripheral lymphadenopathy in resource limited settings like in rural India. While cervical lymphadenopathy is the most common manifestation of TB lymphadenitis, representing 63-77 percent of cases.

Mostly, a unilateral mass appears in the anterior or posterior cervical triangles; submandibular and supraclavicular lymph node involvement also occurs. Bilateral disease is uncommon.

Isolated peripheral tuberculous lymphadenopathy is usually due to reactivation of disease at site seeded hematogenously during primary TB infection, but miliary dissemination with prominent lymph node involvement in the setting of primary infection can also occur.

Clinical manifestations depend on the site of the lymphadenopathy and the immune status of the patient. The most common presentation in young adults is isolated chronic non tender lymphadenopathy. Fever is reported in 20-50 percent of patients without HIV.

Physical examination reveals a firm, discrete mass or matted nodes fixed to surrounding structures, with or without indurated overlying skin. Uncommon findings may be draining sinus, fluctuance, or erythema nodosum.

The diagnosis of tuberculous lymphadenitis is established by histopathological examination along with AFB smear and culture of lymph node material. Chest imaging also to be done.

Our patient here is an adult female with history of fever since one month on and off with right sided enlarged cervical node and reportedly had h/o blood transfusions outside. There was concomitant hepatitis B infection. There was a high suspicion of malignancy based on CBP report which showed lowered RBC, WBC, Platelets. PET CT was done which showed metabolically active cervical lymph nodes and diffuse axial and skeletal metabolic activity which suggested lymphomatous involvement. A cervical node biopsy was done and sent for histopathological examination...surprisingly which revealed no malignancy, but caseating lymphadenitis probably of mycobacterial origin. Then patient was treated for TB. Since there is concomitant hepatitis B infection there are poor chances of prognosis and treatment outcome. Also the treatment is further affected by the hepatotoxicity of anti tubercular drugs.

## CONCLUSION

In summary, this case report highlights the evaluation of PUO with cervical node enlargement and pancytopenia in an adult female with no prior Koch's history, as Tubercular lymphadenitis with concomitant hepatitis B infection for which Hodgkin's lymphoma stayed a close differential diagnosis. Since neck masses can have multiple causes, proper physical examination, and adequate diagnostic studies should be done. Timely diagnosis and multidisciplinary approach forms the basis of prognosis and prevention of complications of TB lymphadenitis with concomitant hepatitis B infection in resource limited settings of rural India.

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