

Tuberculosis of Spleen Presenting With Pyrexia of Unknown Origin in a Non Immunocompromised Men

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Abstract: Splenic lesions due to tuberculosis are extremely rare in immune competent individuals and delay in diagnosis are frequency. Here we describe a 28 year old man presenting with pyrexia of unknown origin with no evidence of any immuno deficiency computed tomography of the abdomen showed an enlarged spleen having multiple small focal hypodense lesions later we confused to be tuberculosis etiology on histopathological examination. He had favorable response with anti tubercular chemotherapy. We report the case of tuberculosis spleen in an immuno competent individual for its rarity and to highlight the fact that these patients can be managed by surgical / medical treatment effectively.

Keywords: Splenic tuberculosis, open-splenectomy, non-immuno compromised patient.

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I. Introduction

According to WHO, 2 billion people, equal to a third of the world total population are infected with tuberculosis incidence is still growing at 1% of year. Out of various extra pulmonary tuberculosis entities, the splenic tuberculosis is extremely rare and delay in diagnoses is frequent. Few of the reasons for this undue delay being non specific clinical presentation, difficulties in confirming the diagnosis and prevalent concepts requiring the surgical intervention for confirmation of the disease and its subsequent treatment though tuberculosis is not so rare an infectious disease leading to splenic enlargement splenic abscess without involving its splenic tuberculosis is not frequently seen and that too restricted largely to immuno compromised population.

II. Case Report

28 year man unmarried army man present at our institute with symptoms of fever undetermined origin for preceding 1 months. The fever was of low grade and intermittent in nature. Complaints of hypochondrial pain aggravated on breathing, radiating to the lumbar region. There was no history of cough/sputum/haemoptysis/breathlessness. He had no history of diabetes, hypertension or any other significant disease. He received medical advice from various private practitioners he underwent repeated ultra sound guided aspiration of abscess. There was no history of tuberculosis in the family on clinical examinations. He had along built and good nutrition with stable vital signs. He had respiratory rate 20/min along with normal breath sounds over bilateral lung fields. He had enlarged spleen left hypochondrial tenderness. The liver was not palpable and the examination of other systems was not remarkable.

His Hemoglobin level was 11.9/g/dl. TLC 6000/mm. Additional biochemical parameters including liver functions, blood sugar, blood urea and serum creatinine were within normal limits. The patient was found to be human immuno deficiency virus (HIV) negative by Enzyme linked immune sorbent assay (ELISA). Indured sputum smears were negative for acid fast bacilli (AFB), CBCT abdomen shows . Fairly peripherally enhancing lesion with surrounding conglomerate hypo densities and associated mild perisplenic fat stranding features suggestive of splenic abscess with surrounding evolving ill defined area open . Splenectomy was done and sent for HPE. The histopathological examination of the biopsy specimen showed epithelioid cells granuloma with central necrosis with Langhans giant cells. Culture of the specimen on Lowenstein-Jensen medium isolated Mycobacterium tuberculosis of the spleen. He was prescribed anti-tubercular treatment CAT-I. and had a favourable outcome with antitubercular chemotherapy.

III. Discussion

Splenic enlargement in association with pyrexia of uncertain origin is a clinical sign commonly observed and encountered during the course of various infectious diseases, splenic infarction and malignancies. However, splenic tuberculosis is rare and restricted largely to immunocompromised population. Epidemiological prevalence of splenic tuberculosis is difficult to ascertain as there has been few isolated case reports of the splenic tuberculosis from the different parts of the world. In a large series of 37 cases with focal lesions of the spleen, Joazlina et al found only 4 cases having the tuberculous etiology. 3 Splenic tuberculosis

usually occurs following the haematogenous spread of infection, as a part of disseminated disease, or, occasionally due to contiguous spread of infection. Immunodeficiency is an important risk factor for splenic tuberculosis. The various immunodeficiency conditions identified in these patients include hematologic abnormalities, diabetes mellitus, HIV infection, organ transplantation, and chronic steroid therapy.^{3,4}

The clinical presentation of splenic abscess is often non-specific, making the diagnosis difficult and is, probably, one of the reasons for a lower prevalence. Splenic abscess should be considered in patients presenting with fever of undetermined origin and abdominal pain; although splenic infarction can have a similar clinical appearance. Lymphoma may also present with fever of unknown origin and pain over spleen suggesting a primary presentation localized to spleen though it may involve multiple sites.⁵ The other features reported in splenic tuberculosis include splenomegaly, leucocytosis and raised erythrocyte sedimentation rate (ESR).

Prior to the advent of ultrasonography and computed tomography (CT), it was very difficult to make the diagnosis. At present, CT is the preferred imaging modality, as not only does CT reveal the presence of a splenic abnormality but it gives an indication of its nature, the site for possible biopsy or drainage and follow-up after treatment. The characteristic CT features of splenic tuberculosis include solitary / multiple nodular or saccular foci or hypodense areas in the spleen.⁶

Although, sometimes, the patients who have no microbiological pathogen on the culture of splenic specimen are diagnosed by signs and symptoms of abdominal infection along with CT findings suggestive of abscess, the gold standard for diagnosis remains microbiological and histopathological confirmation of the tuberculous lesion in the splenic specimen obtained by fine needle aspiration or biopsy or after splenectomy. The first-line management of the splenic tuberculosis is considered to be anti-tubercular chemotherapy with a significant number of the patients responding to it. Surgery may be appropriate in subjects having rupture of the spleen or if the anti-tubercular treatment fails.

IV. Conclusion

We report this case of splenic tuberculosis in an immunocompetent woman for its rarity and also to highlight the facts that these patients can be diagnosed convincingly and managed by medical treatment effectively.

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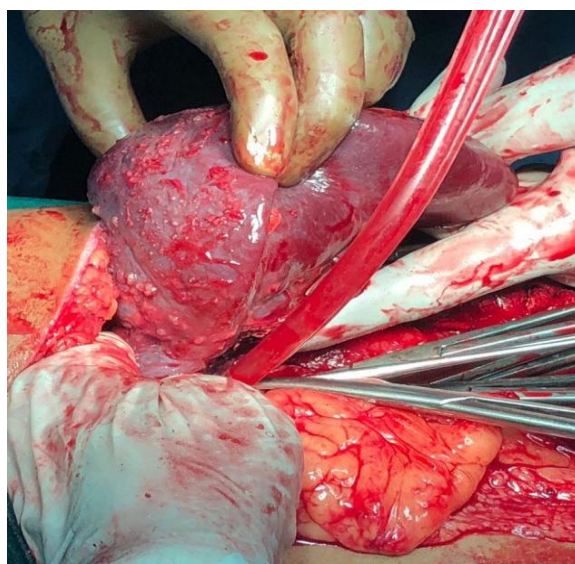


Fig 1 showing intra operative image of spleen



Fig 2 showig the specimen

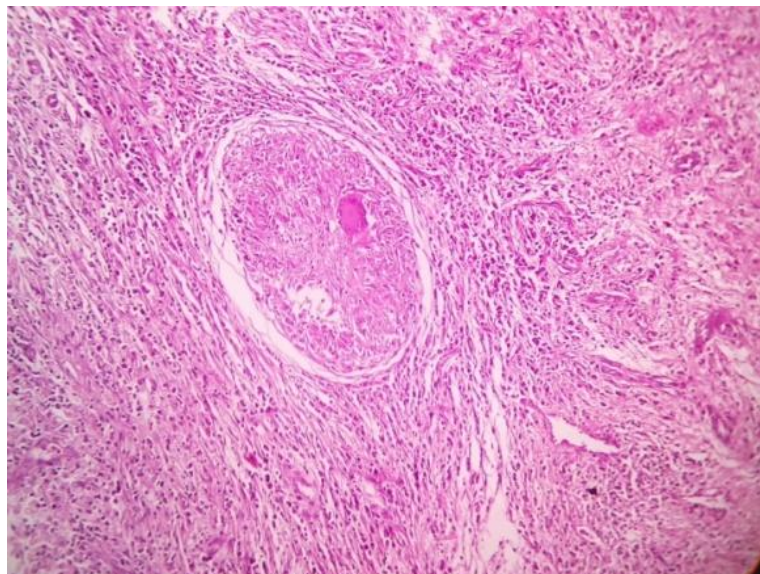


Fig 3 showing histopathological slide of splenic tuberculosis

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