

Splenic Tuberculosis in an Immunocompetent Individual – A Case Report

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Abstract

Splenic tuberculosis is common in severely immunocompromised individuals and delays in diagnosis are frequent. It presents as Pyrexia of Unknown origin. Patients all over the world are given antibiotics with necessary lab investigations as prophylaxis till the diagnosis is confirmed but when patients do not respond to it, the possibility of splenic tuberculosis should always be sought. Diagnosis is a challenging task because of non-specific symptoms. CT scan is an important investigation which shows hypoechoic lesions suggestive of granuloma. Patients usually present with low-grade fever, weight loss, anemia and rarely splenomegaly. Here is a case of a 62-year-old man who presented with vomiting and intermittent left hypochondrium pain since four months. We report this case of tuberculosis spleen in an individual who is a type 2 diabetic with a good glycemic control and no signs of immunocompromise.

Keywords: Splenic tuberculosis, Pyrexia of unknown origin, CT scan, Left hypochondriac pain

INTRODUCTION

Tuberculosis is one of the most common and most suspected diseases in India. The average prevalence of tuberculosis is estimated to be 5.05 per thousand with a prevalence of 2.27 per thousand smear-positive cases and average annual incidence of 84 per 1,00,000 smear-positive cases annually in India.¹

The various immunodeficiency conditions identified in these patients include hematologic abnormalities, HIV infection, diabetes mellitus, chronic steroid therapy and organ transplantation.² It most commonly presents as primary pulmonary Tuberculosis.

It can also present in other forms as extrapulmonary tuberculosis- miliary Tuberculosis. Spleen is the third most common organ becoming involved in miliary T.B. (lung 100%, liver 82%, spleen 75%, lymph nodes 55%, bone marrow 41%).³ Virtually all organ systems may be affected. Due to hematogenous dissemination in HIV-infected individuals, extrapulmonary tuberculosis is seen more commonly today than in the past.

There are many modalities of investigations still the diagnosis is usually delayed. Ultrasonography, CT Scan and MRI are sensitive investigations but CT scan is preferred for the abdomen. The characteristic

CT features of splenic tuberculosis include solitary / multiple nodular or saccular foci or hypodense areas in the spleen.⁴ It also has a lot of differential diagnosis because of which diagnosis is often delayed. Moreover typical nodules on the splenic capsule are usually too small to be detected.⁵ In differential diagnosis of CT findings, lymphoma, hydatid disease and metastases must be considered.⁶

CASE DISCUSSION

A 62-year-old male patient complained of intermittent left hypochondrium aching type of pain, occurring after vomiting since the past 4 months. He has no weight loss. He did not complain of fever, cough or any other respiratory complaints. He did not complain of Tuberculosis or being in contact with a Tuberculosis patient in the recent past. He was diagnosed to have Type 2 Diabetes Mellitus one year back. His bowel and bladder habits were normal. On examination, the patient had mild pallor but currently afebrile 37.5 recorded at the time of admission. Per abdomen there was no organomegaly and no other abnormalities were detected. Hemoglobin was 11.8. No primary focus was found. X-ray findings were normal. FNAC report came as granulomatous inflammation and USG ABDOMEN AND PELVIS showed: Splenomegaly with Multiple Hypoechoic Areas suggestive of granuloma as seen in Figure-1. Para-aortic lymphadenopathy and bilateral

renal parenchymal changes were detected. Urine protein was present in traces. Serum uric acid (8.2 mg/dl) and calcium were high. Liver function tests were normal. CT SCAN revealed hypointensities in the spleen as seen in Figure 2. Nephrology consultation was done. Person was not advised splenectomy as he was diabetic and removal of spleen would increase the chances of infections later. Patient was started on Anti Tubercular Treatment. Since then Patient had shown good improvement.

Capsule R-Cinex	300/600 mg
Tablet Pyzina	500 mg
Tablet Combutil	600 mg
Tablet Rabekind Plus	Rabeprazole 20 mg Levosulpiride 75 mg
Tablet Benadon	40 mg
Capsule Cobadex	Pyridoxine Hydrochloride 3 Mg,
CZS	Nicotinamide 100 Mcg, Folic Acid 1500 Mcg, Cyanocobalamin 15 Mcg, etc

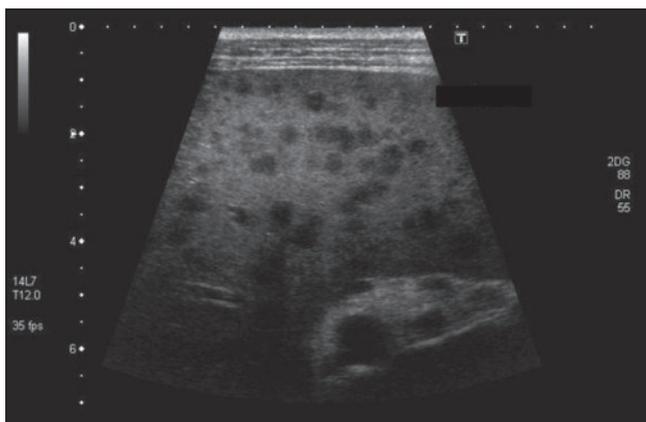


Figure 1: Splenomegaly with Multiple Hypoechoic Areas suggestive of granuloma

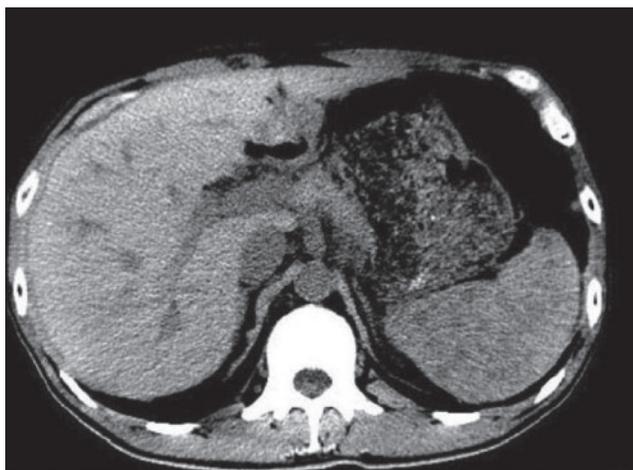


Figure 2: CT SCAN - Hypointensities in the spleen

CONCLUSION

Tuberculosis is a multi-system disease, 90% of which locates primarily in lung, unlike isolated splenic tuberculosis, a rare form of extrapulmonary TB.¹ Patients with AIDS or who are otherwise immunocompetent have been reported to be at a high risk for splenic TB.⁶ Some scholars insist that all patients with splenic TB are secondary to the previous infection of tubercle bacillus in other organs.⁷

In this case, the patient denied having a previous history of tuberculosis or contact with tuberculosis.

The patient presented with intermittent left hypochondriac aching type of pain and vomiting after food. No other complaints. The appropriate investigations that need to be done in this case are haemoglobin, Chest X-ray to rule out a primary of the lung, FNAC concluded it to be a granulomatous disease. Ultrasound narrowed the lesion to be confined in the spleen and involvement of para-aortic lymph nodes. Due to Renal involvement, sarcoidosis had to be ruled out. The patient is diabetic so further investigations for nephropathy was to be done.

The patient was started on Anti Tubercular Treatment and the patient has improved since then. Abdominal Tuberculosis should be kept in mind if a patient comes with such a presentation. Splenectomy has been advocated as the treatment of choice for splenic tuberculosis in the preantibiotic era. Splenectomy resulted in a recovery rate of approximately 60%.⁸ In a case of Isolated Splenic Tuberculosis in an immunocompetent individual, six months treatment of the above mentioned drugs need to be given.

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