

# Multiple Splenic Tubercular Abscesses in an Immunocompetent Patient

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(Received: March, 2017)

(Accepted: June, 2017)

## ABSTRACT

Tubercular splenic abscess is an extremely rare clinical entity particularly among immunocompetent patients. It has been reported in association with immunodeficiency states. We report a case of 34 years old HIV negative male who presented with fever and pain in left hypochondriac region. Computerised Tomographic scan (CT scan) of the abdomen revealed multiple splenic abscesses with abdominal lymphadenopathy Splenectomy was done. Pus from lesion showed acid fast bacilli. Patient responded to standard antitubercular medication.

**KEY WORDS:** abscesses, immunocompetent, splenic tuberculosis

## INTRODUCTION:

Tuberculosis is an important health problem in developing countries with varying clinical presentation depending on the organ and system involved.<sup>[1]</sup> It is one of the common infections causes of splenic enlargement. However, tubercular splenic abscess is a rare presentation restricted largely to immunocompromised population with disseminated tuberculosis.<sup>[2]</sup> Extrapulmonary tuberculosis constitutes 15-20% of all TB cases.<sup>[3-6]</sup> We are reporting a case of tubercular abscesses in spleen in an immunocompetent host, as primary involvement of spleen is unusual.

## CASE REPORT:

A 34 years male came with complaints of fever on and off since 1 year, pain in left hypochondriac region since 1 month. There was no history of cough, malaise and weight loss. History of trauma was not present. There was no history of contact with a case of Tuberculosis. The patient was non smoker and did not consume alcohol.

On examination, there was lump in the left hypochondriac region extending up to umbilicus. Splenic notch was palpable. The lump was firm, tender and moved with respiration. Rest of physical examination was unremarkable.

Laboratory investigations revealed microcytic hypochromic anaemia with Hb at 8.5gm/dl. Total leucocyte count was raised 19,200/cumm with neutrophilic predominance (86%). Chest radiograph was unremarkable. Sputum smear was negative on 3 consecutive early morning samples for acid fast bacilli. USG thorax showed mild to moderate free fluid in the pleural cavity(70 - 80cc). Contrast enhanced computerised tomography (CECT) scan of abdomen showed spleen grossly enlarged about 24 cm in cc diversion. Shape was normal. There were multiple well defined hypodense lesions scattered throughout splenic parenchyma. Majority of lesions were present beneath the capsule. Multiple heterogeneously enhancing enlarged lymph nodes were noted in pre and paraaortic region(left > right), porta hepatis and peripancreatic regions. USG pelvis was normal. HIV test was negative.

Splenectomy was done as the spleen was grossly enlarged and there were multiple abscesses. Pus from lesion showed acid fast bacilli on Ziehl

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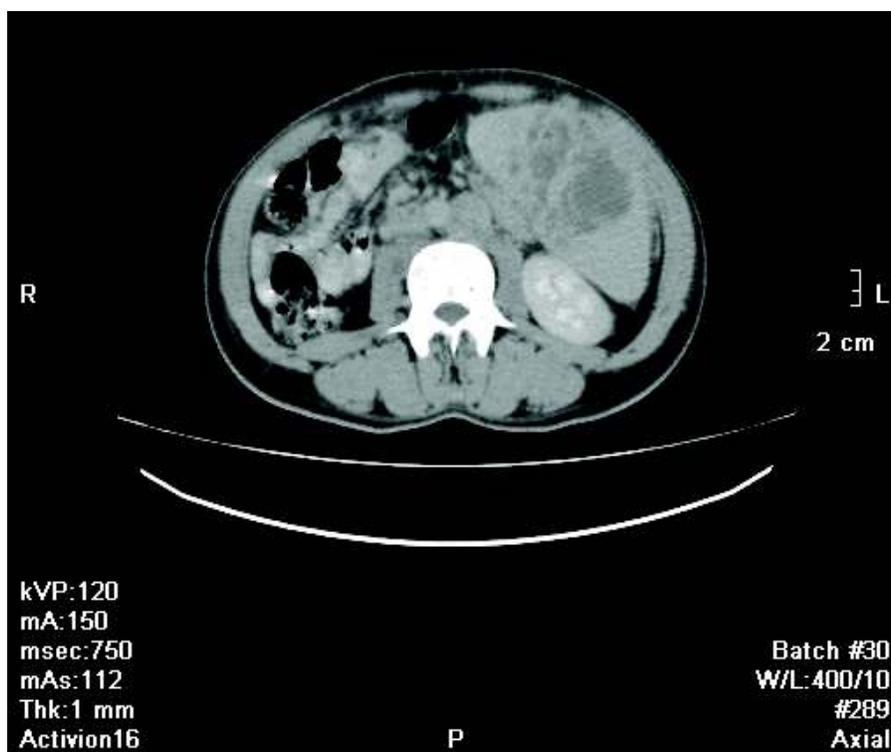
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**Figure 1:** Enlarged spleen with multiple abscesses.



**Figure 2:** CECT Abdomen shows an enlarged spleen with multiple coalescent non-enhancing areas.

Neelson (ZN) staining. On Histopathology, epithelioid cell granulomas, Langerhan's giant cells and few lymphoid cells with necrotic background were seen suggestive of tubercular lesion.

The patient was started on daily short course chemotherapy with isoniazid, rifampicin,

pyrizinamide and ethambutol . He responded well to anti tubercular treatment (ATT).

#### **DISCUSSION:**

Tuberculosis is a deadly infection prevalent worldwide and more so in the developing countries. It

presents as pulmonary and extrapulmonary disease with a predilection for lungs.<sup>[1]</sup> Extrapulmonary tuberculosis presents as lymphadenopathy, pleural effusion, bone and joint disease, intestinal disease, pericardial disease, meningitis and miliary disease.<sup>[2,3]</sup> 15% of all tuberculosis cases are extrapulmonary form, of which 11% have abdominal organ involvement.<sup>[4]</sup> Splenic TB is of 2 types (a) splenic tuberculosis in immunocompromised individuals as part of miliary tuberculosis; (b) second and unusual form of splenic TB is the primary involvement of the spleen, as in our patient.<sup>[3,4]</sup>

Patients with splenic tuberculosis usually present with left upper quadrant pain and fever.<sup>[2]</sup> Our patient also presented with similar complaints. Fooladi et al have reported isolated splenic abscess in their patient.<sup>[3]</sup> In our case, patient had abdominal lymphadenopathy along with splenic abscesses. A study done by Adil et al, in a series of 12 immunocompetent patients with splenic TB showed the simultaneous involvement of one or more organ in all the patients.<sup>[9]</sup>

CT scan and USG are essential tools in the assessment of patients with suspected splenic tuberculosis. USG is noninvasive and cost effective investigation. It helps in diagnosis and assessment of treatment response.<sup>[1,4,5]</sup> CT scan is more sensitive than USG.<sup>[1,2]</sup> It shows solitary or multiple nodular or saccular foci or hypodense areas in the spleen.<sup>[2,5,6]</sup> CT scan of abdomen and thorax rules out involvement of any other organ.<sup>[1]</sup> In almost all the reported cases diagnosis was made by radiological findings followed by pathological examination for fine needle aspirate, splenic biopsy or splenectomy specimen.<sup>[3,10]</sup> In present case however pus sample was sent for Ziehl Neelsen staining and acid fast bacilli were seen. Histopathological and Microbiological investigations are essential to pinpoint the diagnosis.<sup>[2,5,6]</sup> Histopathological examination shows caseous granulation with Langerhan's giant cells and epithelioid cells.<sup>[4,5,10]</sup>

## CONCLUSION:

Antitubercular treatment (ATT) remains the first line treatment for splenic tuberculosis, whereas splenectomy is rarely required. However, surgical procedure may be required if there is abscess

formation, if biopsy specimen are non diagnostic or when patient is not responding to treatment.<sup>[1,2,6,7]</sup> In present case the spleen was enlarged about 1.5kg in weight due to multiple abscesses. Therefore, splenectomy was performed followed by antitubercular treatment.

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**Cite this article as:** Mahalle R & Gaikwad U: Multiple Splenic Tubercular Abscesses in an Immunocompetent Patient. *PJSR.* 2017;10(2):

**Source of Support:** Nil, **Conflict of Interest:** None declared.