

# ISOLATED TUBERCULAR SPLENIC ABSCESS

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## INTRODUCTION:

Splenic tuberculosis (splenic TB) is extremely rare and has no characteristic symptoms or abnormal imaging findings. Therefore, it is likely to be misdiagnosed as carcinoma of spleen, splenic abscess, lymphoma, rheumatic fever or others. Isolated splenic tuberculosis is rare although secondary involvement in Miliary TB is common [1]. The misdiagnosis rate is high if there is no tuberculosis history in other organs. In this case report, we present the presentation, diagnosis, treatment and a literature review.

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## CASE REPORT

A 22 year old female, resident of Kamothe, Nurse by profession, presented with complaints of fever, with generalized weakness and fatigue since 1 week. Patient was apparently alright 1 week back, when she started with fever, which was insidious in onset, mild in nature, intermittent, associated with generalised weakness, malaise and body ache. There was no history of throat pain, cough, sputum, chest or abdominal pain, night sweats, weight loss or anorexia. Patient denied addictions.

No past history of TB/ TB contact/ HTN/ BA. No past history of any surgeries, blood transfusion.

### On Examination

Patient was vitally stable, afebrile. No pallor, icterus, cyanosis, clubbing, lymphadenopathy, oedema. JVP not raised. Skin, hair, nail, spine appeared normal.

**Systemic Examination** (On admission):  
Respiratory System - Air entry equal on both sides, no adventitious sounds heard. Per Abdomen - Soft, no organomegaly. Cardio Vascular System - S1S2 normal, no murmur. Nervous System- Conscious Oriented.

### Lab Investigations

All her routine investigations were under normal limits.

Her ESR was raised to 87.

LDH was 458.S.

Amylase was 40.

Sputum AFB was negative.

Three samples of blood culture was sterile.

Sickling test was negative.

Mantoux test was negative.

HIV, HBsAg, HCV was non-reactive.

MP, RMA negative

2D Echo was normal, with no evidence of infective endocarditis

Her first chest radiograph was normal. Her USG revealed multiple hypo echoic area in the spleen suggesting splenic abscess, largest measuring 2.1×1.7cms.

A chest radiograph repeated after 5 days showed left sided pleural effusion.

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CT scan abdomen with contrast shows multiple splenic abscess ( largest measuring 4.5×1.5 cm), periportal, peripancreatic lymph nodes measuring 1.5cms ( Necrotic lymphnodes). Most likely cause Koch's.

Pleural fluid ADA was 61. Pleural fluid proteins 5.32g/dl, sugar 71.6mg/dl, total count 6200 cells/cumm ( P-25 , L-75 ).

**Treatments**

Pleural fluid was exudative in nature with ADA of 61 which was highly suggestive of tubercular origin and hence patient was started on Anti Tubercular Treatment.



**Image 2a:** First chest radiograph showing



**Image 2b:** Chest radiograph after 5 days showing left sided



**Image 2c:** Chest radiograph showing progressing pleural effusion



**Image 2d:** Chest radiograph showing resolving pleural effusion (post AKT)



**Image 1:** USG image showing multiple splenic abscess



**Image 3b:**



**Image 3 a:**



**Image 3c:**

**CT Image 3a, 3b, 3c: showing splenic abscess on admission**



Image 3d:



Image 3e:



Image 3f:

**CT Image 3d, 3e, 3f: shows resolving splenic abscess**

## RESULTS

Therefore, on admission investigations only showed splenic abscess on USG. Development of pleural effusion was seen later after 1 week which was tubercular in origin. CT images confirmed the diagnosis. Patient was started on AKT. Pleural effusion and splenic abscess was seen resolving after AKT thus concluding Tuberculosis. Patient was seen improving without any surgical intervention.

## DISCUSSION

Mycobacterium tuberculosis continues to be one of the world's most prevalent and deadly infectious microbes, killing about three million people every year. Clinically, tuberculosis may present as a systemic disease involving pulmonary and extrapulmonary systems. Of all the organs, the lungs are predominantly affected. Involvement of the spleen in tuberculosis can occur in the miliary/disseminated form of the disease. However, isolated tuberculosis of spleen is a very rare disease [1]. When the spleen is involved as an isolated organ, the patient may present with tuberculoma or tubercular abscess. Many reported cases of splenic tubercular abscess are found to have underlying HIV infection leading to immunocompromised states [2,3]. Only sporadic cases of splenic tuberculosis have been reported in the literature in immunocompetent individuals. [4]

Adil et al. reported a series of 12 immunocompetent individuals with splenic tuberculosis but all of them had one or more extra site of tuberculous involvement along with the spleen [5]. Generally, these cases present with mild pyrexia and chronic weight loss and are diagnosed during investigational work up for PUO. Rarely, splenic tuberculosis has also been diagnosed incidentally during laparotomy that was carried out for abdominal trauma [6].

Diagnosis of isolated splenic tuberculosis is difficult and often delayed because of vague clinical presentations. In most cases, diagnosis can be suspected by radiological investigations but confirmed by pathologic examination of fine needle aspirate or of the splenectomy specimen. Abdominal ultrasonography is an affordable, non-invasive imaging modality for a case of possible splenic TB, and is especially relevant as a screening tool. The most common findings on USG of the spleen are single or multiple focal hypoechoic lesions. However, since USG is operator-dependent, it can have lower sensitivity in some situations. On the other hand, CT scan is most beneficial in the setting of doubtful

ultrasound and to rule out involvement of other intraabdominal organs, as it offers the ability to image the entire abdomen in a single examination.<sup>[7]</sup>

The patient in consideration was an immunocompetent young adult female who presented with complaints of low-grade fever and weight loss. USG examination revealed a hypoechoic lesion while CT demonstrated a hypodense area in the spleen. However, a similar radiological picture is also seen in patients having fungal or other pyogenic infections. As the patient developed pleural effusion, which was likely to be tubercular in character, the most likely cause of splenic abscess was considered to be tuberculosis and the patient was started on AKT. Pleural effusion and splenic abscess was seen resolving after AKT thus concluding Tuberculosis.

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## REFERENCES:

1. Ho PL, Chim CS, Yuen KY. Isolated splenic tuberculosis presenting with pyrexia of unknown origin. Scand J Infect Dis 2000; 32: 700-01.
2. Sambrook J, Frisch EF, Maniatis T. Molecular Cloning. A laboratory manual. Vol. II, 2nd edition. Cold Spring Laboratory Press, 1989.
3. Eisenach KD, Crawford JT, Bates JH. Repetitive DNA sequences as probes for mycobacterium tuberculosis. Journal of Clinical Microbiology 1988; 26: 2240-45.
4. Sato T, Mori M, Inamatsu T, Watanabe J, Takahashi T, Esaki Y. Isolated splenic tuberculosis. Nippon Ronen Igakkai Zasshi 1992; 29: 305-11.
5. Adil A, Chikhaoui N, Ousehal A, Kdini R. Splenic tuberculosis: an unusual sonographic presentation. Int J Clin Pract 1999; 53: 318-9.
6. Singh B, Ramdial PK, Royeppen E, Moodley J, Chetty R. Isolated splenic tuberculosis. Trop Doct 2005; 35: 48-9.
7. Schinina V, Rizzi EB, Mazzuoli G, David V, Bibbolino C. US and CT findings in splenic focal lesions in AIDS. Acta Radiol 2000; 41: 616-20.