

# SPLENIC TUBERCULOSIS

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## ABSTRACT

Isolated splenic tuberculosis is a rare entity. We report a case of isolated splenic tuberculosis that presented with pyrexia of unknown origin and escaped diagnosis until an exploratory laparotomy was performed. Subsequent histopathology confirmed the diagnosis of tuberculosis of spleen.

**KEY WORDS:** *Tuberculosis. Spleen. Splenectomy*

## INTRODUCTION

Tuberculosis (TB) was recognised as early as the fourth century BC and was known by many names until the identity was established by Robert Koch in 1882. This disease is endemic in Indo-Pakistan and is found in various forms. Pulmonary TB is the commonest manifestation of the disease. Involvement of other sites and viscera usually occurs as a part of disseminated tuberculosis with infiltrative pulmonic tuberculosis. While a number of cases of splenic tuberculosis have been described either as a part of disseminated disease or associated with abdominal TB, isolated splenic tuberculosis is extremely rare with only few such cases reported in the literature. We report a case of isolated splenic tuberculosis which presented with pyrexia of unknown origin and eluded diagnosis until confirmed on histopathology after an exploratory laparotomy.

## CASE REPORT

A 30-years-old police constable, referred from the Medical Ward, presented with a ten months history of unremitting fever associated with weight loss and easy fatigability. He was previously seen by many doctors and had taken several courses of antibiotics with partial or no response. With no remission in his symptoms, he was referred to Liaquat University Hospital, Jamshoro / Hyderabad and was admitted in the Department of Medicine as a case of pyrexia of unknown origin (PUO). His blood and urine cultures were reported positive during his admission and treated successfully with antibiotics on the basis of sensitivity. Ultrasonography showed enlarged spleen with multiple hypoechoic areas without any other abnormality in the abdomen. Hepatosplenic scan showed enlargement of splenic shadow with a space occupying lesion. Due to the recurrence of fever and abnormal ultrasonography and hepatosplenic scan, he was referred to the Department of Surgery for

further management.

Examination revealed him an emaciated and grossly anaemic person. The abdominal examination was unremarkable except deep tenderness in the left hypochondrium. His ESR was 100 mm after 1 hour, haemoglobin 7 gm per cent, total leucocyte count was raised with lymphocytosis while chest X-ray and urine DR were normal. At laparotomy, a massively enlarged spleen showing multiple adhesions with diaphragm, omentum, and parietal peritoneum was revealed. No other abnormality in the abdomen except enlargement of a few coeliac nodes was seen. Splenectomy was done after division of the adhesions and pedicle. Excision biopsy of the coeliac lymph nodes was also taken. The recovery of the patient was uneventful. The biopsy report of both spleen and lymph nodes revealed evidence of tuberculosis. The patient was treated with triple-drug anti-tuberculosis regimen for nine months with no recurrence of his symptoms in a follow-up of one year.

## DISCUSSION

Tuberculosis continues to be in endemic in Pakistan. Abdominal tuberculosis, a common manifestation, is usually found in the form of iliocaecal tuberculosis, tuberculous peritonitis or lymph node enlargement<sup>1,2</sup> and is usually associated with pulmonary tuberculosis. Other abdominal viscera including spleen are uncommon sites of tuberculosis. The involvement of these viscera is either secondary to disseminated pulmonic tuberculosis<sup>3</sup>, with infiltrative pulmonic tuberculosis<sup>4</sup> or is associated with peritoneal tuberculosis<sup>5</sup>. Isolated splenic tuberculosis, with no associated pulmonary or abdominal involvement is a rarity<sup>6,7</sup>, with only few cases reported in the literature. Rab et al. report having seen only five cases of isolated splenic tuberculosis over a period of five years.<sup>8</sup>

Diagnosis of isolated splenic tuberculosis remains elusive mainly because of the rarity of the disease.<sup>9</sup>

Other diagnoses are often wrongly suggested, such as tumours, inflammatory diseases or other infectious diseases.<sup>10</sup> Ultrasonography and CT scan, although useful, are not always specific. Splenomegally is frequently slight. Tubercles may be few or numerous, minute or readily visualised. Occasionally a large tumour-like granuloma (tuberculoma), usually single and measuring several centimetres in diameter is the only lesion found. A histopathological or bacteriological confirmation is therefore often required. Ultrasound guided fine needle aspiration cytology (FNAC) is increasingly being used in the diagnosis of abdominal tuberculosis. Suri et al. who evaluated this investigation in the diagnosis of abdominal tuberculosis have found it to be highly efficient with a sensitivity rate of 87.5%.<sup>11</sup> It has been recommended as a safe and accurate method of achieving a diagnosis in patients with suspected abdominal tuberculosis who present with radiologically demonstrable but non-palpable lesions especially involving the spleen. Similar results have been reported by other investigators.<sup>12</sup> Other studies, however failed to show efficiency of echo-guided FNAC in the diagnosis of splenic TB.<sup>13</sup> Despite advancement in investigative modalities, preoperative workup of patients with isolated splenic TB has been reported to be negative with the disease being identified only at laparotomy.<sup>6</sup> A high degree of suspicion, therefore, is required especially in patients with splenomegally associated with fever, weight loss and asthenia.

Involvement of spleen in the tuberculous process as a result of miliary or systemic disease can be managed successfully by anti-tuberculous drugs and supportive therapy. If, however, spleen is involved as an isolated organ or is associated with hypersplenism, splenectomy is strongly recommended.

## BIBLIOGRAPHY

1. Brizi MG, Celi G, Scaldazza AV, Barbaro B. Diagnostic imaging of abdominal tuberculosis: gastrointestinal tract, peritoneum, lymph nodes. *Rays* 1998; 23:115-25
2. Lundstedt C, Nyman R, Brismar J, Hugosson C, Kagevi I. Imaging tuberculosis. Abdominal manifestations in 112 patients. *Acta-Radiol* 1996;37:489-95
3. Lantosova NA. A case of disseminated TB, predominantly affecting liver and spleen. *Probl Tuberk* 1989; 2:72-3 (Russian)
4. Nadeev MG. A case of splenic TB in a patient with infiltrative pulmonary TB. *Probl-Tuberk* 1987;9:74-5 (Russian)
5. Asamer H. Rare abdominal manifestations of tuberculosis: isolated splenic tuberculosis and peritoneal tuberculosis. *Schweiz Med Wochenschr* 1986;116:400-03
6. Bastounis E, Pikoulis E, Varelas P, Cirochristos D, Aessopos A. Tuberculoma of the spleen: a rare but important clinical entity. *Am Surg* 1999; 65:131-2
7. Chandra S, Srivastava DN, Gandhi D. Splenic tuberculosis: an unusual sonographic presentation. *Int J Clin Pract* 1999;53: 318-9
8. Rab SM, Ahmed A, Vahidy F. Isolated splenic tuberculosis: a report of five cases. *J Coll Physicians Surg Pakistan* 1999; 2:84-86
9. Ozguroglu M, Celik AF, Demir G et al. Primary splenic tuberculosis in a patient with nasal angiocentric lymphoma mimicking metastatic tumour on abdominal CT. *J Clin Gastroenterol* 1999; 29: 96-8
10. Greub G, Erard P. Tuberculose extrapulmonaire. *Rev Med Suisse Romande* 1996; 116: 391-8
11. Suri R, Gupta SK, Singh K, Suri S. Ultrasound guides fine needle aspiration in abdominal tuberculosis. *Br J Radiol* 1998; 71(847): 723-7
12. Rajwanshi A, Gupta D, Kapoor S et al. Fine needle aspiration biopsy of the spleen in pyrexia of unknown origin. *Cytopathology* 1999;10:195-200
13. Miyagi H, Nakamoto A, Toyoda K et al. A case of tubercular liver and splenic abscess. *Kansenshogaku Zasshi* 1996; 70:1116-21

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