Case Report

Primary Isolated Splenic Tuberculosis
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Abstract

Primary isolated splenic tuberculosis is very unusual clinical phenomenon especially in immunocompetent hosts. It often poses diagnostic challenge and can cause considerable morbidity. We came across a 37 yrs old immunocompetent male having intermittent fever for the past two months. Ultrasonography and CT scan of abdomen showed multiple hypoechoic and hypodense lesions in spleen. Trucut biopsy was done and diagnosis of splenic tuberculosis was confirmed. It is important to consider tuberculosis in differential diagnosis when suspecting infective, lymphoproliferative or neoplastic diseases in patient with vague symptoms and hypodense lesions in spleen.

Key Words: Tuberculosis. Spleen

Introduction

Splenic tuberculosis (splenic TB) is extremely rare and has no characteristic symptoms but abnormal imaging findings. Therefore it is likely to be misdiagnosed as carcinoma of spleen, splenic abscess, lymphoma, rheumatic fever or others. Secondary involvement of spleen as in miliary tuberculosis is although common. In this report we describe case of isolated splenic tuberculosis without lung or bowel involvement.

Case Report

A 37yrs old male from Rawalpindi, presented with intermittent fever for two months. There was no history of weight loss. Physical examination showed mild splenomegaly. There was no lymph node enlargement. Laboratory data showed raised Erythrocyte sedimentation rate (ESR) of 35mm in first hour. White blood cell count, renal function tests, liver function tests and coagulation profile were normal. Chest X-ray was unremarkable. Abdominal ultrasound revealed multiple ill defined hypoechoic lesions in spleen. Lesions were of variable sizes (figure 1). Spleen was mildly enlarged. No abdominal lymphadenopathy was seen. Rest of abdominal ultrasound showed no abnormality. Contrast enhanced (CE) CT scan of abdomen showed multiple non enhancing hypodense lesions of variable sizes in spleen (figure 2). These lesions showed ill define margins. Mild splenomegaly was noted. Splenic index was 525.

Ultrasound guided Trucut biopsy was done. Histopathological report showed a granulomatous lesion with large area of caseation in the centre surrounded by Langhan’s gaint cells and epitheloid cells accompanying inflammatory cell infiltrate. Acid-fast staining showed existence of numerous acid-fast bacilli. Patient was started on antituberculosis treatment. Initially patient was given four drugs, Rifampicin, Isoniazid, Ethambutol and Pyrazinamide for period of two months. Then two drugs Rifampicin and Isoniazid were given for 6 months. Patient was afebrile and symptoms improved after one week of starting antituberculosis therapy. Repeat ultrasound showed regression in splenic size and decrease in hypoechoic lesions in spleen.

Discussion

Splenic tuberculosis is rare and largely restricted disease to immunocompromised patients.

![Figure 1: Ultrasound showing splenomegaly with multiple hypoechoic lesions in the spleen.](image-url)

Isolated splenic tuberculosis, as in our case, is a rare form of extra pulmonary tuberculosis in immunocompetent...
individuals. Splenic tuberculosis is, generally, a difficult diagnosis, since there are no specific findings. Splenomegaly, pyrexia of unknown origin, chills, weight loss, anorexia, diarrhea, abdominal pain, ascites, and lymphadenopathy are some of the findings of splenic tuberculosis. There are few reports of spontaneous splenic rupture due to mycobacterial infection, causing acute abdominal pain (in both normal individuals and HIV positive patients). There are 5 morphological types of splenic tuberculosis; miliary TB, nodular TB, tuberculous splenic abscess, calcific TB and mixed type TB. Diagnosis of isolated splenic tuberculosis is difficult and often delayed because of vague clinical and radiological findings. In almost all of the recorded cases diagnosis was made by radiological examination followed by pathological examination by fine needle aspiration, splenic biopsy or splenectomy. In our case ultrasonography showed hypoechoic lesions in spleen and CE CT abdomen showed hypodense non enhancing lesions. However, these type of lesions can also be seen in fungal infections and malignancy. Radiological findings cannot pinpoint the exact underlying etiology. Therefore, histopathological examination is necessary for confirmation of diagnosis. Histologically Tuberculous infections can be identified by typical caseation along with granulomas comprised of epitheloid cells and Langhan giant cells. The first line of management is antituberculous drugs. Splenectomy is reserved for patients who fail to respond to antituberculous drugs or present with spontaneous splenic rupture.

**Conclusion**

Tuberculosis should be kept in the differential diagnosis in case of hypoechoic/hypodense lesions in spleen, especially in endemic area.

**References**


