CASE REPORT

TUBERCULAR SPLENIC ABSCESS IN AN IMMUNOCOMPETENT PATIENT - A RARE ENTITY

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Abstract. Tubercular splenic abscess is an uncommon entity. It has been reported in association with immunodeficiency states. Tubercular splenic abscess in an immunocompetent patient is extremely rare. A 24 year old female who had already received a complete course of anti-tubercular therapy (ATT) for pulmonary tuberculosis was diagnosed as having tubercular splenic abscess. She was successfully managed by performing splenectomy. Operative findings and histopathological examinations confirmed the diagnosis.

INTRODUCTION

Tubercular splenic abscess in an immunocompetent patient is extremely rare. So far only three cases have been reported (Agarwal *et al*, 1992; Sharma *et al*, 2000; Neki *et al*, 2001) we report one such case along with review of literature.

CASE REPORT

A 24-year old female patient attended the surgical clinic with history of left sided upper abdominal pain associated with low-grade fever, night sweats and weight loss for last two months. Pain was continuous, dull aching without any aggravating or relieving factor. Patient had received complete 6-month course of anti-tubercular therapy for pulmonary tuberculosis 2 years ago and remained well after this till present episode of illness. There was no history of any bladder and bowel complaints. There was no past history suggestive of hepatitis or any other chronic illness.

On physical examination patient was afebrile with average body built and good nutritional status. Her body mass index (BMI) was more than 19 and mid arm circumference was normal. Abdominal examination revealed palpable spleen tip. Her routine hematological and biochemical investigations were within normal limits. ELISA test for HIV was negative. Markers for viral hepatitis were negative. Serum albumin level was normal and stool examination did not reveal any parasite. Mantoux test using 10 I.U of PPD showed 10mm induration at 48 hours. Her CD4 count was 625 in normal range. Chest X ray was normal, Contrast enhanced spiral CT examination of abdomen showed splenomegaly with multiple hypodense cystic lesions with ill defined margins likely to be splenic abscesses (Fig 1).

The patient was provisionally diagnosed as having multiple tubercular splenic abscesses and planned for splenectomy. After preoperative immunization for Pneumococci and *H. influenza* she underwent splenectomy. Intraoperatively spleen was 15x20 cms large with multiple abscesses and tubercles (Fig 2).

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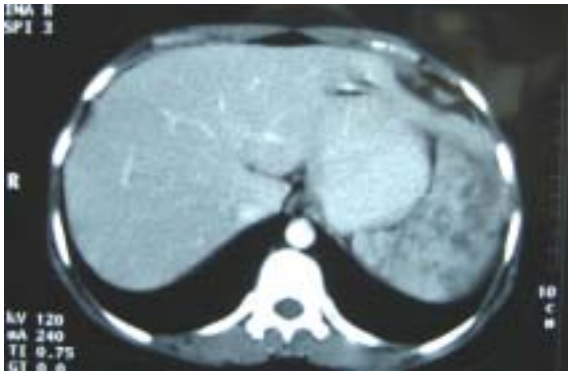

Fig 1–Contrast enhanced spiral CT examination of abdomen showing splenomegaly with multiple hypodense cystic lesions with ill defined margins likely to be splenic abscesses.

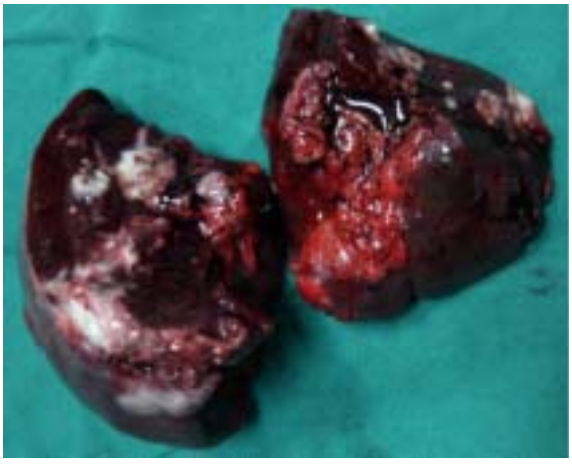

Fig 2–Cut section of spleen showing multiple abscesses.

There were dense adhesion between the spleen and left lobe of the liver but grossly liver, omentum, bowel and peritoneal surface were normal. Postoperative period was uneventful and patient was discharged on 5th postoperative day. Histopathology of the spleen showed tubercular abscesses. She was followed for one year in surgery clinic. During follow-up she remained well and gained 5 kg of weight. As she was asymptomatic after splenectomy and had already received complete course of ATT so further ATT was not given to her.

DISCUSSION

Splenic abscess as such an uncommon entity is extremely rare due to tuberculosis. Tubercular splenic abscesses have been reported in association with various conditions *eg* thrombocytopenia and anemia, (Amodia *et al*, 2005) in patients of acquired immune deficiency syndrome (Dubey *et al*, 1996; Tarantino *et al*, 2003) (AIDS) and in association with progressive hepato-intestinal bilharziasis (Paris *et al*, 1976). Tubercular splenic abscesses in AIDS patients occurs because of disseminated mycobacterium infection and are associated with multiple organ involvement with tuberculosis *eg*, abdominal lymph node enlargement, hepatomegaly, small intestinal wall thickening, ascites, pleural effusion and retroperitoneal tubercular abscess (Tarantino *et al*, 2003).

So far there are only three reports of tubercular splenic abscess (Agarwal *et al*, 1992; Sharma *et al*, 2000; Neki *et al*, 2001). All these three patients were immunocompetent. Out of three one of the case reports is from pediatric age group (Agarwal *et al*, 1992).

In most of the cases of splenic abscesses preoperative diagnosis is possible by ultrasound examination (Tarantino *et al*, 2003) or by computed tomography examination (Miyagi *et al*, 1996) of the abdomen combined with image guided fine needle aspiration of the abscess.

If the patients have not received anti-tubercular treatment previously these patients should be prescribed anti-tubercular treatment and monitored by serial imaging. If these patients are responding, there will be diminution of the size of the abscess and evolution of multiple calcifications compatible with calcified granulomas (Miyagi *et al,* 1996). Splenectomy should be advised to those patients who had already received anti-tubercular treatment at the time of diagnosis of splenic abscess or to those patients who fail to respond to anti-tubercular treatment.

Probable mechanism of tubercular splenic abscess could be due to entrapment of slow growing mycobacteria in red pulp of the spleen which is relatively devoid of phagocytic activity thus escaping entrapment by reticuloendothelial system of spleen.

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