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Original Research Paper

Splenic Cyst Turning Out To Be Hydatid Cyst : A Case Report

Surgery

KEYWORDS : huge splenic cyst, splenectomy, hydatid cyst

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ABSTRACT

A 46 year old male patient presented with left upper abdominal discomfort of 2 months duration . On examination ,he was detected to have splenomegaly. Imaging revealed a huge splenic cyst. Patient was taken up for surgery. Splenectomy with distal pancreatectomy was performed. Histopathological examination revealed the cyst to be hydatid cyst.

INTRODUCTION

Splenic cysts are classed as primary or secondary depending on the presence or absence of a cellular wall lining. Primary (true) cysts contain an epithelial lining. Secondary cysts lack an epithelial lining.(1) Vast majority of primary splenic cysts are parasitic with echinococcus granulosus being the most commonly implicated organism. The treatment of choice of echinococcal cyst is splenectomy.(2)

CASE REPORT

A 46 year old male patient presented with vague upper abdominal discomfort of 2 months duration. He also gave history of early satiety. He was diabetic and was on oral medications for the same. Examination of the abdomen revealed a mass in the left hypochondrium with its lower border 5cm below left costal margin. Traube's space was dull to percussion. The findings were consistent with a splenic mass.

An ultrasonogram of the abdomen was obtained. It showed a thin-walled cystic lesion in the left hypochondrium of size 15×15 cm. It was abutting splenic hilum and tail of pancreas.

The patient was followed up with a contrast enhanced CT scan of the abdomen. It revealed an enlarged spleen with a thin walled cyst of size 15×14×13 cm in the central part of the spleen. It did not show any calcification, septae or mural nodule

A decision to proceed with splenectomy was made. Introperative finding was of a huge splenic cyst of size 15×15×10 cm adherent to stomach, transverse colon and distal pancreas. Adhesions to stomach and transverse colon were released. Splenectomy along with distal pancreatectomy was performed. The gross specimen revealed an outer fibrous capsule and an inner cyst.

Figure 1 The fluid with in the cyst was clear

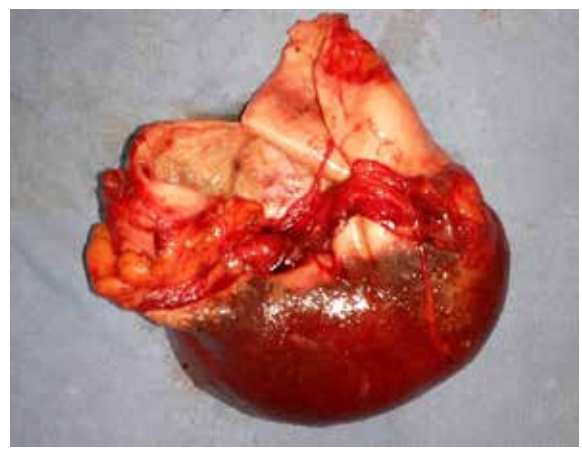

Figure 2. Spleen and cyst

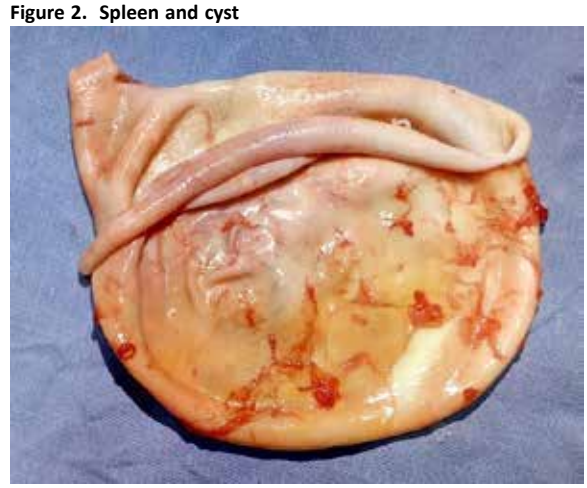

Figure 3 . Hydatid cos

The specimen was sent for histopathological examination. The histopathological examination proved it to be hydatid cyst

DISCUSSION

Splenic cysts are classed as primary or secondary depending on the presence or absence of a cellular wall lining. Primary (true) cysts contain an epithelial lining. Secondary cysts, or pseudocysts, are considered false cysts that arise after trauma, inflammation, or vascular insult to the spleen .(3) They lack an epithelial lining. In 1958 Martin (4) offered a simplified clinical classification system in which nonparasitic primary cysts are divided into congenital and neoplastic:

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I. Primary (true) cysts

A. Parasitic

B. Nonparasitic

1. Congenital

2. Neoplastic

II. Secondary (false) cysts

1.Post traumatic

2.Other

Worldwide the vast majority of primary or true splenic cysts are parasitic, two thirds or more being caused by echinococci, with echinococcus granulosus being the most common species.(5)

Hydatid disease is an endemic parasitic zoonosis caused by the larval stage of Echinococcus. Two variants of this disease occur: classic hydatid disease caused by E. granulosus and the rarer variant caused by E. multilocularis, which is more aggressive because it infiltrates the organ involved and cannot be easily removed. Echinococcus belongs to the order Cestoda and family Taenia. It is about 5 mm long .

The definitive host is dog and the intermediate hosts are sheep, goat, cattle. Human is accidental or incidental intermediate host. The intestine of the definitive host is the tissue where adult worm resides. Eggs passed in the feces are ingested by grazing sheep, goat and cattle. Eggs hatch, embryos penetrate the host's intestinal wall, and reach the liver through the portal vein. They are distributed to the lungs and other organ systems by bloodstream. At the site of deposition ,the embryo develops in to a cyst filled with fluid. This becomes the hydatid cyst. The liver is the most commonly affected organ with echinococcus infection, followed by the lung . The spleen accounts for 0.5 to 5.8% of all patients suffering from echinococcal disease.(6) Our patient had isolated involvement of the spleen.

The echinococcal splenic cyst is composed of an inner germinal layer and an outer laminated layer surrounded by a fibrous capsule, characteristically multilocular in appearance, and filled with fluid under pressure. It may contain daughter cysts and infective scolices. Echinococcal cysts may be asymptomatic or may cause pressure symptoms when they reach large enough size.

The imaging characteristics of splenic hydatid cysts are similar to those of hydatid cysts elsewhere. These include calcification of the cyst wall, the presence of daughter cysts and membrane detachment.(7) CECT in this patient did not show any calcification,septae or membrane detachment. Diagnosis may be confirmed by indirect hemagglutination or ELISA, which are positive in approximately 90% of patients with echinococcal cysts.

Surgery is the mainstay of treatment for hydatid disease of the spleen and several surgical techniques have been applied to splenic echinococcosis , including spleen-sparing operations . An organ-sparing approach seems favourable when the cysts are located at the splenic surface or at the poles of the spleen . Splenic salvage by cyst enucleation or partial splenectomy may often be related to considerable blood loss. Furthermore, due to the difficulty of vascular control during parenchymal transection, these operations preclude a laparoscopic approach as it is feasible for splenectomies or for deroofing of the cyst wall . (2)

There have been reports of limited success in small(<5cm) single cysts with chemical sterilization with cetrimide,3% sodium chloride, or ethanol and cyst evacuation in order to achieve splenic salvage. Although the preservation of the spleen is being increasingly advocated to prevent some complications associated with splenectomy ,only the complete removal of the diseased organ rids the patient of a potentially infected cavity which carries the risk of recurrence. For this reason as well as an unrecognized infection with E. multilocularis, splenectomy is favoured.(2)

In conclusion, splenectomy remains the therapeutic procedure of choice because it offers complete cure from the disease. Spleen-preserving surgery should be chosen carefully. Whereas in the future, interventional procedures might gain increasing significance as a therapeutic option.(2)

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