Giant true splenic epithelial cyst: A case report

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Abstract:

Splenic cysts are rare lesions in daily surgical practice. These are classified as true or pseudocyst based on presence or absence of epithelial lining. Most of these are asymptomatic until they regain significant size, at this time they are detected incidentally on ultrasonography or CT scan. We report a case of 45-year-old male with giant epithelial splenic cyst with about 2500 ml of brownish fluid was collected from the cyst. The specimen measured 180 mm ×160 mm ×120 mm and weighted 3500 g. Laparotomy with splenectomy has been the method of choice for giant epithelial cysts.

Keywords: Epithelial cyst, Splenic cyst, pseudocyst.

Introduction:

Primary splenic cysts are even rarer lesions. They have presence of epithelial lining either simple squamous or cuboidal epithelium. Various haematological and radiological investigations are required to confirm the diagnosis. Decision about the type of surgical procedure is based on the size of the cyst, its relationship to the splenic hilum and amount of normal remnant splenic tissue and whether cyst is symptomatic.

Case History:

A 45-year-old patient presented with complaints of sensation of fullness in left upper abdomen, atypical pain and mild dyspeptic symptoms. On examination, a lump was palpable in left upper abdomen. USG abdomen revealed giant cystic lesion with irregular cystic pattern in upper abdomen. Computarized tomography confirmed evidence of 17cm ×15cm ×12 cm cystic lesion with thin enhancing septae arising from spleen (Fig. 1). All laboratory tests were normal and serological tests gave no evidence of parasitic infection with Echinococcus granulosus. At laparotomy, a huge splenic cyst of approximately 20 cm of maximum diameter was found with almost total displacement of remaining splenic parenchyma (Fig. 2 and 3). However due to cyst size and location, preservation of spleen was considered impossible and total splenectomy was carried out. Histopathology report revealed spleen with a cyst having fibro collagenous wall lined by cuboidal epithelium with focal calcification which is a rare presentation (Fig. 4). Generally epithelial splenic cysts are lined by simple squamous epithelium. Aspirated cystic fluid showed no evidence of malignancy. Thus the diagnosis of primary true splenic cyst was established.

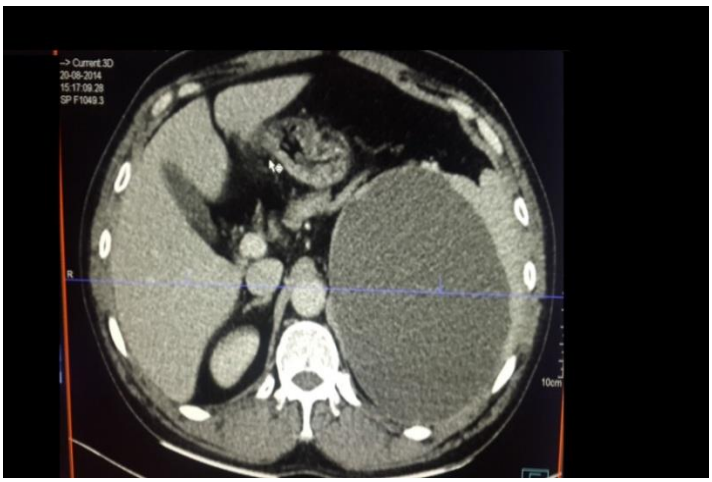

Figure 1: CT scan showing cystic lesion in spleen

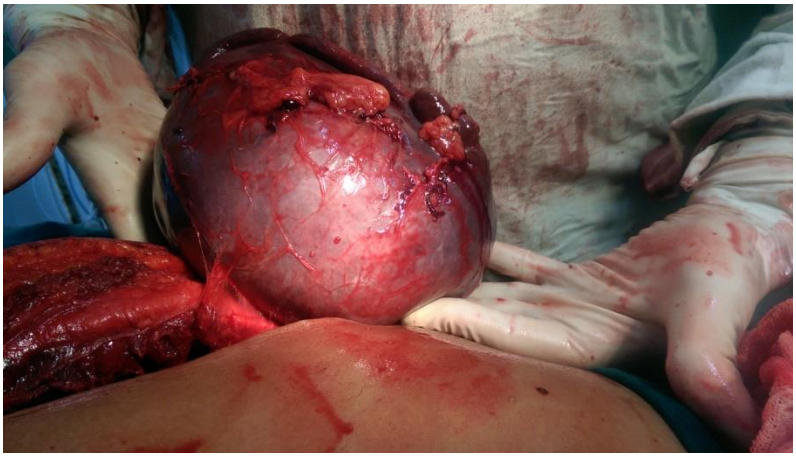

Figure 2: Intraoperative image of splenic cyst after separation of adhesions

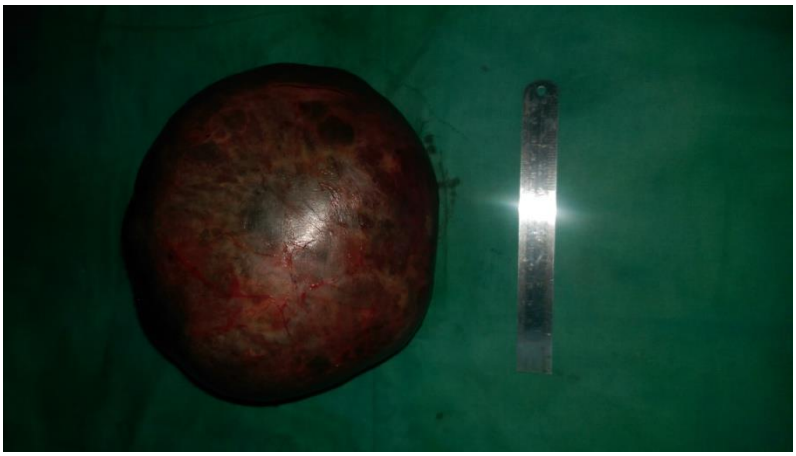

Figure 3: Resected specimen of spleen with giant cyst

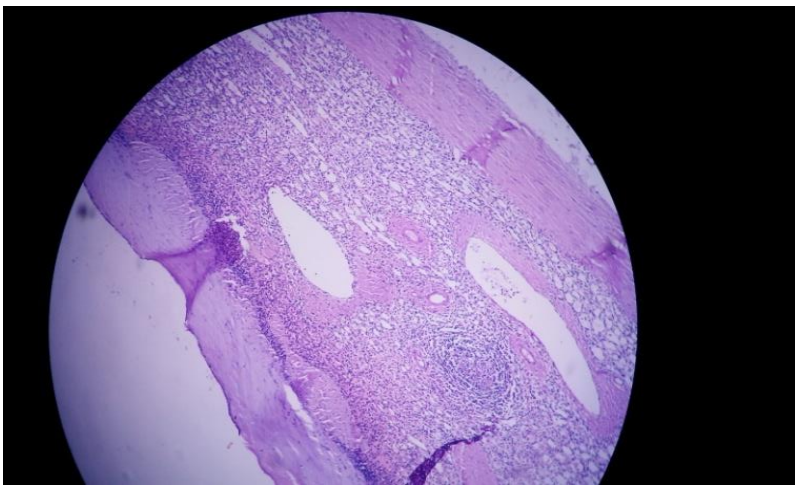

Figure 4: Histopathology image showing fibro collagenous wall lined by cuboidal epithelium

Results:

Postoperative clinical course was uneventful. Patient received pneumococcal, meningococcal and Haemophilus influenza vaccination and antibiotic prophylaxis post op. Patient was discharged on postoperative day 7. Patient continues to be followed up and is in good clinical condition and asymptomatic.

Discussion:

Giant true splenic cysts are rare findings. Based on presence or absence of epithelial lining, they

are classified as true cysts (primary) or pseudocysts (secondary) (1). Splenic cyst may also be classified as parasitic and non-parasitic cysts. Taenia echinococcus infection is the most common cause of parasitic cyst. Parasitic cysts commonly occur in areas of endemic hydatid disease. Splenic cysts other than those of hydatid disease are extremely rare.

The clinical presentation may vary based on the size and location of the cyst. Patient with splenic cyst may complain of asymptomatic mass in left hypochondrium or symptomatic mass with symptoms like dyspepsia, early satiety, left hypochondrial pain and abdominal fullness. Patient may also complain of pleuritic chest pain, shortness of breath and/or shoulder or back pain. Patient may also experience renal symptoms from compression of the left kidney (2). Splenic epithelial cysts occur predominantly in children and young women (3).

Patient with a giant splenic cyst present with palpable mass in anterior abdominal wall. On physical examination, an abdominal lump may be palpable. Rarely splenic cyst present with acute abdomen related to rupture, hemorrhage or infection. Diagnosis is best made by CT scan of abdomen. CT scan or MRI gives information regarding the morphology of cyst, composition of cystic fluid, the location of cyst in spleen and its relationship with surrounding tissues (4). Ultrasonography may show whether the cyst is anechoic or hypoechoic and whether they have smooth cyst wall (5). Solid tumors are usually either hypoechoic or isoechoic. Calcifications are frequently found in primary cysts or pseudocysts. Cystic fluid may contain protein particles, breakdown products of hemorrhage or cholesterol crystals.

Histologically, epithelial cysts have a squamous epithelial lining with intracellular bridges and a thick collagenous wall. The interior cyst wall may be composed of thick trabeculated fibrous bands covered by epithelium. In our case the epithelial cyst was lined with cuboidal epithelium which is also rare presentation.

Differential diagnosis of cystic lesion in spleen may include parasitic echinococcal cyst, intrasplenic pancreatic cyst, pseudocysts from splenic trauma, congenital cyst, splenic abscess, metastatic disease and cystic lymphangioma/ hemangioma (rare) (6).

Splenic cyst with a diameter larger than 4-5 cm should be managed surgically, due to increase risk of complications (7). Various surgical options range from percutaneous aspiration, sclerotherapy to partial or complete splenectomy. These options depend upon the size of cyst, its relationship with surrounding structures and its relationship with splenic hilum.

We recommend, giant symptomatic splenic cysts should be managed by complete open splenectomy. Conservative and minimal surgical approach should be employed for smaller sized and peripherally located splenic cysts.

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