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Giant True Splenic Epithelial Cyst

Barhate MV, Thakur SS, Kamble M
Department of General Surgery, B. J. Govt. Medical College and Sassoon General Hospital, Pune, Maharashtra, India.

Abstract:

Splenic cysts are unusual in daily surgical practice and less than 1000 cases have been reported. Primary, true or epithelial splenic cysts, are even rarer. Most of the cases are asymptomatic until of significant size, at which time they are then 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 180x160x120 mm and weighted 3500 grams. Laparotomy with splenectomy has been the method of choice for giant epithelial cysts.

Key words: Cysts, Splenic Diseases, Splenectomy, Laparatomy.

Introduction

Splenic cysts are rare lesions and are classified as true or pseudocysts based on the presence of an epithelial lining. 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 Report

A 45 year old patient presented with complaint of sensation of fullness in left upper abdomen, atypical pain and mild dyspeptic symptoms. On examination a lump was palpable in left upper abdomen. Ultrasound abdomen revealed giant cystic lesion with irregular cystic pattern in upper abdomen. Computerized tomography confirmed evidence of 17x15x12 cm cystic lesion with thin enhancing septae arising from spleen. 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. 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 fibrocollagenous wall lined by cuboidal epithelium with focal calcification. Aspirated cystic fluid showed no evidence of malignancy. Thus the diagnosis of primary true splenic cyst was established.

Corresponding Author: Dr. Barhate MV
Email: mayur_rn2006@yahoo.co.in
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Postoperative clinical course was uneventful. Patient received pneumococcal, meningococcal and Haemophilus influenza vaccination and antibiotic prophylaxis post operatively. Patient was discharged on postoperative day 7. Patient continues to be followed up and is in good clinical condition and asymptomatic.

Discussion

Cystic changes of the spleen are very rare. Based on the presence or absence of cellular lining of the cystic wall, splenic cysts are classified as primary (true) or secondary (pseudo) cysts [1]. Splenic cysts other than those of hydatid disease are also very uncommon. Most true splenic cysts are epithelial in origin and have embryonic inclusion of epithelial cells from adjacent structures [2]. Congenital splenic cysts are also called epidermoid or epithelial cysts. They are uncommon, comprising only about 10% of benign non-parasitic cysts. Splenic epithelial cysts occur predominantly in children and young women [3]. Small cysts are usually asymptomatic. The initial symptoms and signs referable to large cysts may include vague abdominal pain and a palpable mass in the left upper quadrant with or without symptoms due to compression of adjacent organs [4].

Histologically, epidermoid 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. The cystic fluid may contain cholesterol crystals, protein particles, or breakdown products of hemorrhage.

A comprehensive differential diagnosis for a cystic lesion of the spleen includes parasitic echinococcal disease, congenital cyst, intrasplenic pancreatic pseudocyst, pseudocycsts from splenic trauma, infarction, infection, pyogenic splenic abscess, metastatic disease, and cystic

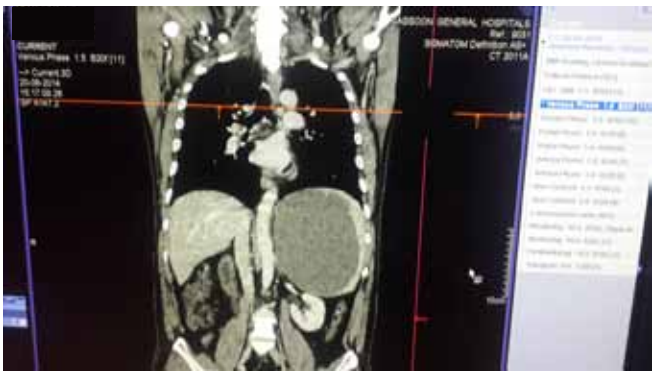

Fig.1: Intra operative image of giant splenic cyst after separation of adhesions.

Fig.2: Resected specimen of spleen with giant splenic cyst.

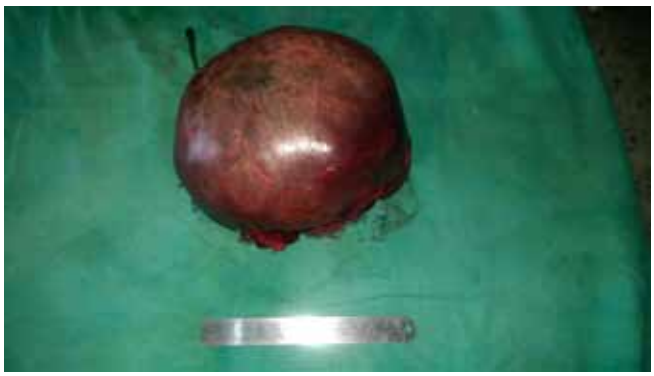

Fig.3: Histopathology image showing fibrocollagenous wall lined by cuboidal epithelium.

lymphangioma/hemangioma (rare). Post-traumatic cysts are actually false cysts that typically have a smooth, fibrous non-cellular lining, can lead to hemorrhage, and may calcify. About half of the patients found to have this most common type of splenic cyst can recall a significant abdominal trauma.

Ultrasonography is able to show that the cysts are either anechoic or hypoechoic and that they have a smooth thin wall [5], whereas solid tumors are either isoechoic or hypoechoic. In addition, computerized tomography and magnetic resonance imaging may give most of the necessary information, regarding the morphology of the cyst, the composition of the cystic fluid, the location in the spleen, the position of the cyst and its relationship with the surrounding tissues [6]. Calcifications of both primary and secondary cysts are frequently found, which is useful in differentiating between cysts and other causes of splenomegaly.

Due to the increased risk of complications, splenic cysts with a diameter larger than 4-5 cm should be managed surgically [7], because conservative options, such as percutaneous aspiration or sclerosis, do not result in long-term control. There are different types of surgical treatment according to the patient's age and the size, location and nature of the cyst. The classical approach to splenic cysts has been open complete splenectomy.

Any type of conservative procedure is difficult to perform, if the cyst is very large, is located in the splenic hilum, or is covered completely by the splenic parenchyma (intrasplenic cyst), or if there are multiple cysts (polycystic cases): in these cases, a complete splenectomy should be performed.

Conclusion

Splenic cysts may cause abdominal pain and lump that warrant surgical resection. Splenic cysts, although rare, should be considered as part of a differential diagnosis in patients presenting with abdominal pain.

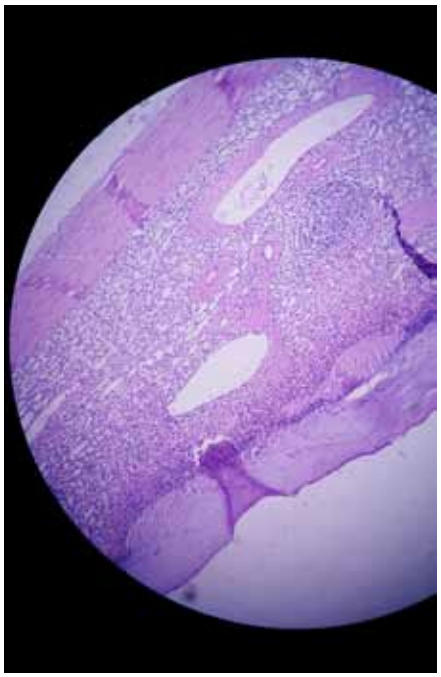

Fig.4: CT scan showing giant splenic cyst with peripheral scanty splenic tissue.

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