Case Report

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Giant Pseudocyst of Spleen

Surgery Section

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ABSTRACT

False cysts of spleen or the pseudocysts accounts for about 75% of the non-parasitic splenic cysts and are usually traumatic in origin. These cysts are differentiated from the true cysts of the spleen by a absence of a epithelial layer on histology. We present here a case of a giant splenic pseudocyst in a young female with no previous history of trauma.

Key Words: Spleen, Splenic cyst, Pseudocyst of spleen, False splenic cyst

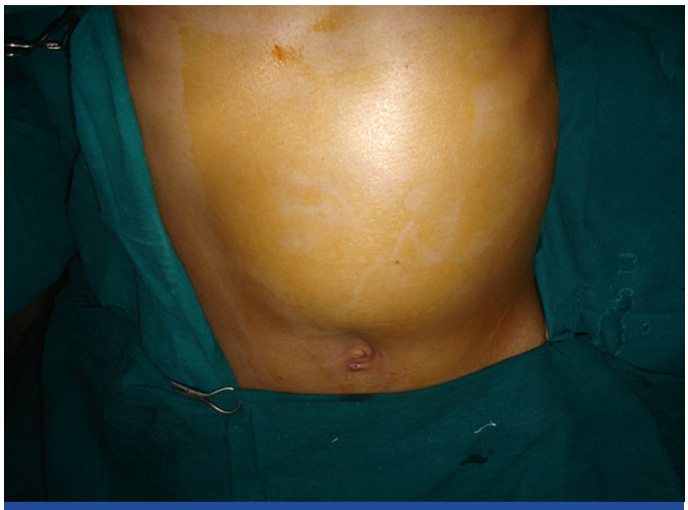
INTRODUCTION

Splenic cysts are not usually encountered in the surgical practice. They can be either parasitic cysts or non- parasitic in origin. The non-parasitic cysts are further divided into true cysts with an epithelial lining and the pseudocyst which lacks it and are usually traumatic in origin. They usually are asymptomatic. Only large cysts produce symptoms due to their size and pressure on adjacent organs. These symptomatic cysts are surgically treated by splenectomy, partial splenectomy, deroofing or by fenestration.

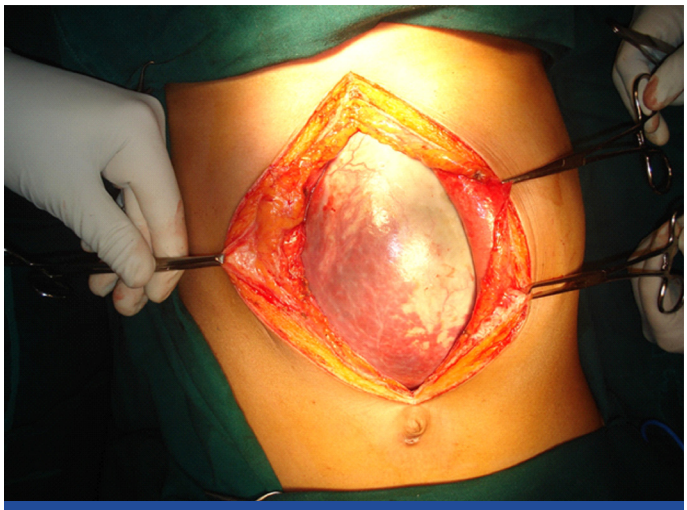
CASE REPORT

A 19-years old female presented with the history of an upper abdominal mass for the last 3 years. The mass was progressively increasing in size. She was asymptomatic until two months back but now she had complains of fullness of abdomen and a dull aching sensation. There was no history of trauma, fever , loose stools or vomiting. On examination her vitals were within normal range. Abdominal examination revealed a large mass measuring 28 x 20 cms occupying the left hypochondrium, epigastrium, umbilical region, left lumbar region. The upper limit of the mass was not felt as it extended beyond the costal marin on the left side. The mass had a smooth surface and was firm in consistency. Her haematological parameters were within normal range. Ultrasongraphy of the abdomen mentioned a mass in close proximity with the spleen and the stomach. CT Scan of the abdomen revealed a large splenic cyst occupying the major part of the spleen with only a narrow rim of normal splenic tissue.

The patient was given pneumococcal vaccination and prepared for a laprotomy. A midline approach was preferred due to the large size of the cyst. The per-operative findings included a large infected cyst involving the majority of the splenic tissue with displacement of the stomach medially and the pancreas inferiorly. A total splenectomy was done as there was very little normal splenic tissue which could be preserved. The specimen weighed 3.5 kilos. Post operative period was uneventful. The histopathological diagnosis was in favour of a psuedocyst of the spleen.



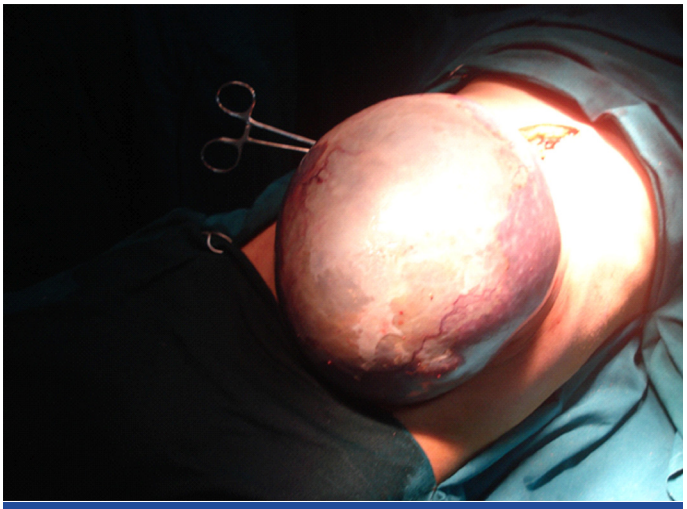
[Table/Fig-1]: Preoperative image of the abdomen



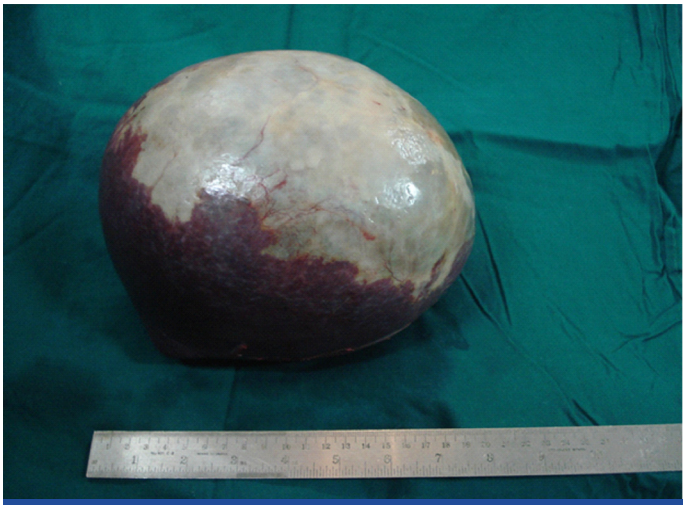
[Table/Fig-2]: Approach: Midline laprotomy

DISCUSSION

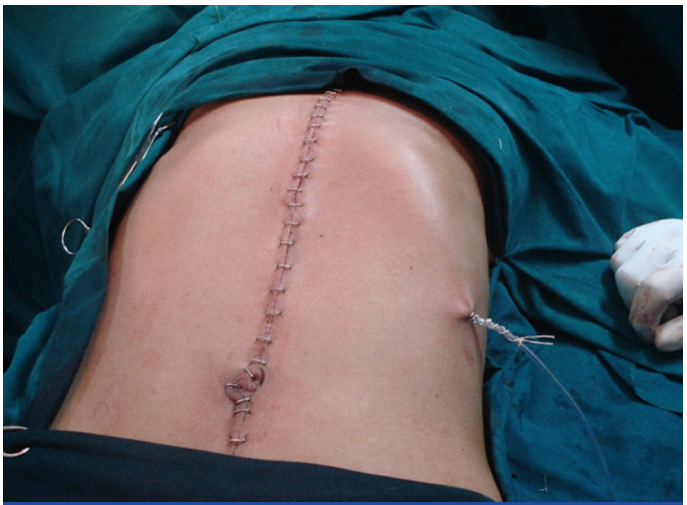
Splenic cysts are a rare entity encountered in the surgical practice. Splenic cysts have been classified by Martin as follows: type I cysts are primary (true) cysts with a cellular lining, either parasitic



[Table/Fig-3]: Splenic cyst being dissected out



[Table/Fig-4]: Specimen of splenic cyst



[Table/Fig-5]: Post-operative image of the patients abdomen

or non-parasitic in nature. Non-parasitic type I cysts can either be congenital or neoplastic cysts. Type II cysts are secondary (false) cysts without cellular lining [1, 2, 3, 4].

Pseudocysts in the spleen are four times more common than true cysts. Non-parasitic cyst of the spleen was first described by Andral in 1829. By 1978, approximately 600 surgical and autopsy cases of such cysts had been reported in the world literature [1].

Pathogenesis of the true cysts is not entirely clarified and there are many theories by different authors. False or secondary cysts, which constitute 75% of all non-parasitic cysts, are usually formed after organized hematoma, which are spread sub-capsularly and intra-parenchymally are mostly of traumatic origin, but may also be of infectious and degenerative origin, some of causes being intra-splenic pancreatic pseudocyst, sub-capsular or intra-parenchymal haematomas of the spleen, appeared in the course of acute or chronic pancreatitis, Spontaneous sub-capsular haematomas in the mononucleosis, Spontaneous sub-capsular haematomas, associated with cytomegalovirus infection, haematomas, connected with use of the cocaine, haematomas of the spleen, as a complication after fibroptic colonoscopy [1, 2, 3.]

Congenital splenic cysts are usually seen in patients younger than those with false cysts, and marked female preponderance is observed [1].

Splenic cysts are usually asymptomatic until they reach a significant size. Large cysts may cause atypical pain and heaviness in the left hypochondriac region, due to distension of the capsule or space-occupying mechanisms within the abdominal cavity, or they may present as a palpable mass [4].

Symptoms secondary to pressure on surrounding organs, such as nausea, vomiting, flatulence, and diarrhea may gradually appear. Also, pressure in the cardio respiratory system may cause pleuritic pain or dyspnea, and irritation of the left diaphragm may cause persistent cough. Occasionally splenic cysts may present with complications, such as infection, rupture and hemorrhage [4].

Diagnosis of the pseudocysts is based on the radiological examination [US, CT, magnetic resonance imaging (MRI)]. Histology is needed to know whether the cyst is primary or secondary (no cellular lining) and to determine its precise nature [1].

Surgery is primarily recommended for the prevention or treatment of complications. The first attempt at excision of a splenic cyst was reported by a French surgeon, Jules Pean in 1867. Unfortunately due to excessive bleeding it had to be converted to a total splenectomy [5]. There are many approaches described in conformity with the size of the cyst, the condition of the parenchyma of the spleen, and the anatomic proximity with the neighboring organs and structures [1]. The surgical treatment of these splenic cysts is partial or total splenectomy, and fenestration [2, 4, 1]. Laparoscopic fenestration, however, is associated with a significant recurrence rate. Percutaneous drainage with or without injection of a chemical agent may decrease the size of large cysts, but is associated with a high rate of recurrence [3].

Although the literature offers the possibility of providing conservative or semi-conservative treatment, in our case, the cyst was bigger than the residual splenic parenchyma, which reduced the spleen to a small remnant, for which reason it would have been impossible to perform a conservative spleen saving surgery.

REFERENCES

[1] Kalinova K. Giant pseudocyst of the spleen: A case report and review of the literature. *Case Reports*. 2005; 10(3): 176-179.
[2] Cissé M, Konaté I, Ousmane K, Dieng M, Abdarahmane D, Touré TC. Giant splenic pseudocyst, a rare aetiology of abdominal tumour: a case report. *Cases Journal* 2010 3:16
[3] Chang HM, Liu CH, Tsai WC, Hsi SC, Liu YC. Huge Pseudocyst of the Spleen. *J Med Sci* 2009;29(5):269-271.

[4] Macheras A, Misiakos EP, Liakakos T, Mpistarakis D, Fotiadis C, Karatzas G. Non-parasitic splenic cysts: A report of three cases. *World J Gastroenterol* 2005; 11(43): 6884-6887.

[5] Mukherjee R, Wells A, Reed J. Laproscopic decapsulation using a harmonic scalpel of a gaint splenic cyst with a raised serum CA – 125. *The internet journal of surgery*. 2006; 8(1).

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