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Case Report

# **Pseudocyst of Spleen: A Rare Case**

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#### **ABSTRACT**

Pseudocyst of spleen is a very rare clinical condition, found in less than 1% of all splenectomy cases and it usually develops secondary to trauma. We present a case of pseudocyst of spleen, in an eleven year old male patient presenting with the complaints of abdominal lump and pain. History of blunt trauma was elicited. The haemogram showed total and differential leukocyte count within normal limits. Ultrasonographic examination revealed a huge cystic lesion in the spleen. The cyst fluid was aspirated, culture of which revealed no bacterial growth. The patient underwent splenectomy. Histopathological examination showed a huge unilocular cyst with a thick fibrous capsule and smooth inner surface. Microscopy revealed a cyst wall composed of fibrocollagenous tissue with no definite lining. Areas of calcifications were noted. We present the case because of its rarity.

**Key words:** Pseudocyst, spleen, rare case.

### **INTRODUCTION**

Spleen undergoes cystic change less often than any other abdominal viscera. [1] Splenic cysts are rare [2, 3, 4] with around 800 cases reported in the world literature. [2] Pseudocysts follow a blunt trauma, [1, 2, 3] incidence being less than 1% of all splenectomies. [5]

#### **CASE REPORT**

An eleven year male presented with complaints of abdominal mass, gradually increasing in size with pain since six months. A past history of blunt trauma abdomen was elicited.

#### **Investigations:**

Haemogram was within normal limits. Fluid cytology revealed occasional red blood cells and no nucleated cells. Culture of the fluid showed no bacterial growth. Ultrasonography revealed a huge cystic lesion in the spleen (Figure 1).



Figure 1: Ultrasonography: a huge cystic lesion in the spleen



Figure 2: Gross: a huge splenic cyst showing thick fibrous capsule with compressed splenic tissue

The patient underwent splenectomy, and the excised specimen was received for histopathological examination. Gross examination revealed a huge splenic cyst with thick fibrous capsule and a rim of compressed splenic tissue. The specimen weighed 550 grams and the cyst measured 14.8X14.5X11.1cm. The cyst was unilocular containing serous fluid with a smooth surface (Figure 2). On microscopic examination the cyst wall showed no definite lining with unremarkable adjacent splenic tissue (Figure 3 A). Cyst wall revealed cholesterol clefts and areas of calcification (Figure 3 B).

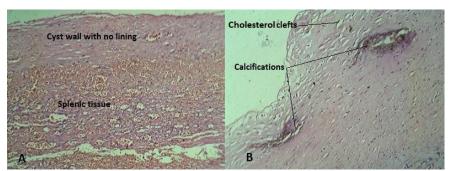


Figure 3: Microscopy: (A) Cyst wall showing no definite lining with unremarkable adjacent splenic tissue, Hematoxylin & Eosin, 10X, (B) Cyst wall showing cholesterol clefts and areas of calcification, Hematoxylin & Eosin, 40X

Considering the past history of blunt abdominal trauma and distinct gross as well as microscopic features, the diagnosis of pseudocyst (secondary cyst) of the spleen was made.

#### **DISCUSSION**

Blunt abdominal trauma is the commonest cause of pseudocyst of spleen and occurs due to resorption of hematoma

with subsequent serous fluid collection. <sup>[2, 6]</sup> According to the classification of splenic cysts suggested by Martin et al, <sup>[1, 2]</sup> splenic cysts can be primary (true) or secondary (pseudo/false). The secondary cysts do not have any definite lining whereas primary cysts have definite cellular lining and can be subdivided according to the etiology as parasitic and nonparasitic. Nonparasitic cysts can be either congenital or neoplastic

(dermoid, epidermoid, lymphangiomatous, and haemangiomatous).

Most of the splenic pseudocysts (30 – 60%) are asymptomatic and cause problem only as they enlarge. <sup>[2, 4, 7]</sup> Common clinical presentation includes abdominal pain, nausea and vomiting due to compression of stomach by a large splenic cyst. <sup>[2, 4, 7]</sup> Complications of pseudocysts are rupture of spleen, intracapsular hemorrhage and infection. <sup>[1, 2, 7]</sup> Preoperative differential diagnosis includes cystic lesions of the left kidney, adrenal, ovary, liver, pancreas and mesentery. <sup>[1]</sup>

The confirmation of diagnosis is possible only with histopathological examination.<sup>[8]</sup> Commonly practiced treatment modality is splenectomy. Recently spleen preserving techniques including watch full waiting, percutaneous drainage, marsupialization, splenic decapsulization and complete cystectomy with partial splenectomy have been tried.<sup>[6,7]</sup> Still the gold standard remains splenectomy. <sup>[2,6,7,8]</sup>

## **CONCLUSION**

The diagnosis of the pseudocyst in the spleen is possible only on histopathological examination, after the surgical removal of spleen.

Though pseudocyst of spleen is a very rare clinical condition, it has to be considered as one of the differential diagnosis of acute abdomen. Inspite of being

an emergency, the condition is completely curable by surgical management.

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