

Pseudocyst Spleen: Case Report

Rajendra Prasad Bugalia¹, Prashant Garg², Anuradha Salvi³, Dhananjay Saxena⁴, Raj Kamal Jenaw⁵,
Rana Arun Singh⁶, Jeevan Kankaria⁷

^{1,2}Assistant Professor, ⁴PG Resident, ⁵Senior Professor & Head, ⁶PG Resident, ⁷Associate Professor, Department of General surgery, SMS Medical College, Jaipur, Rajasthan- 302002, India

³Senior Resident, Department of obstetrics and Gynaecology, SMS Medical College, Jaipur, Rajasthan- 302002, India

*Corresponding Author:

Name: Dr. Rajendra Prasad Bugalia

Email: drprbugalia@gmail.com

Abstract: Pseudocysts of the spleen are very rare. It is found in <1% of the splenectomies done, usually develop secondary to trauma. Pseudocysts of spleen with large size are rare and most of these remain asymptomatic. They require exploration only in symptomatic cases and chances for preservation of spleen in these cases are usually less. Here, we present a case of this rare entity with complain of pain in the abdomen. After thorough investigations, laparotomy was done doing splenectomy in the case. Histopathological examination revealed the absence of lining epithelium that confirmed the diagnosis of splenic pseudocysts. We report this case because of their rarity and as diagnostic dilemmas. In this part of the world Ecchinococcal cysts are found to be common cause of cystic lesions. Pre-operatively it is difficult to differentiate pseudocysts of the spleen from other types of cysts.

Keywords: Pseudocyst, Spleen, Trauma, Splenectomy.

INTRODUCTION

In routine surgical practice cystic swelling of the spleen is an uncommon disease [1]. Cystic lesions of the spleen include benign cysts, neoplasms and abscesses [2]. Cysts of the spleen can be classified as parasitic and non-parasitic [3-5]. Non-parasitic cysts divided as true cysts (primary) and pseudocysts (secondary). True cysts are lined by epithelial cover and include epidermoid cyst, epithelial or congenital cysts. In pseudocysts epithelial lining is absent and mostly are post-traumatic [5-7].

The diagnosis of splenic cysts have increased now a days, because the availability of computed tomography (CT) and due to the conservative management of splenic injuries [8]. Splenic conservation are used rather than splenectomy which was practiced for splenic pseudocyst. Splenic conservation procedures for splenic pseudocysts are deroofting of the pseudocyst and partial splenectomy. Splenectomy is required in large pseudocysts that involve the splenic hilum and ruptured pseudocyst [9]. For the proper management it is important to distinguish pseudocyst of spleen from hydatid cysts. Splenic pseudocysts mostly remain asymptomatic and they require treatment only when become symptomatic. In general, large cysts produce symptoms and treatment is done surgically by splenectomy or by splenic preservation [10].

CASE REPORT

A 35-year old male presented in outpatient department of general surgery at SMS Hospital with complain of dull ache and sensation of heaviness in the left hypochondrium for 20 days without any other complain. His physical examination revealed splenomegaly. Past history was negative for any trauma, malaria or any hematological disorder.

All routine investigations were in normal limits. Serological tests for malaria and Ecchinococcus were negative. The ultrasound examination showed a large, solitary, cystic lesion 70×70mm of the spleen. The patient was scheduled for CECT of the upper abdomen which revealed a solitary, smooth outlined splenic cyst, with signs of peripheral calcification. The cyst was occupying almost the entire splenic parenchyma and was 60×72×72mm in size likely calcified epidermoid or hydatid cyst (Fig. 1&2).

A surgery was planned considering the diagnosis of splenic cyst and abdomen was explored per operative finding showed large cystic lesion of spleen 7×8 cm occupy whole of the spleen thus complete splenectomy was done (Fig. 3, 4). Other solid organ and viscera was normal. On follow up the histopathological examination confirmed the diagnosis of pseudocyst by the absence of lining epithelium.



Fig. 1&2: CECT abdomen showing well defined non enhancing homogenous cystic lesion 72×72×60 mm size with peripheral calcification in spleen likely calcified epidermoid or hydatid cyst



Fig. 3: Intraoperative picture of splenic cyst involving whole of the spleen



Fig. 4: Intraoperative picture of splenic cyst involving splenic hilum and rest of spleen showing congestion



Fig. 5: Speciman of splenic cyst



Fig. 6: Aspirated clear brown fluid from the splenic cyst

DISCUSSION

Splenic cysts are rare with around 800 cases have been reported in literature [11]. Pseudocyst mostly developed due to splenic trauma and results from splenic haematoma managed conservatively [12]. Capsule of fibrous tissue that develops around the resolved subcapsular or intraparenchymal haematoma liquefies to form pseudocyst [13]. In the present case the cyst is probably the result of unrecognized trauma. Resolution and liquefaction of hematoma of remote or recent trauma is thought to be instrumental in the origin of pseudocysts of the spleen, but also may be infectious or of degenerative origin also [14-16].

It is reported that hydatid disease as the most common cause of splenic cysts in this country. An infected hydatid cyst is difficult to differentiate from other types of cysts. Patients with small splenic cysts are mostly asymptomatic or have minor non-specific symptoms and ultrasound abdomen easily makes the diagnosis [1].

Large cysts cause atypical pain and heaviness in the left hypochondrium because of capsular distension or they may present as palpable mass [1, 17, 18]. Other symptoms secondary to pressure on surrounding organs like stomach include nausea, vomiting etc. Pressure in the cardio-respiratory system may cause pain or dyspnea and persistent cough. Occasional complications include infection, rupture or hemorrhage [1].

Surgery is primarily recommended for the prevention or treatment of complications of pseudocysts such as infection, hemorrhage or rupture, which may be life-threatening [14-16]. For many years, splenectomy has been the treatment of choice for splenic pseudocysts. Surgical approaches depend on the size of the cyst, the condition of splenic parenchyma and the anatomic proximity of the cyst. Because of better understanding of the post splenic complications, now days the attitude has become more conservative [1].

Splenectomy, partial splenectomy, aspiration, drainage, marsupialization and laparoscopic procedures are the surgical options for splenic pseudocyst [1].

In our case the cyst was large size and near the splenic hilum the parenchyma of the spleen was congested and edematous. Thus, splenectomy was considered safer.

CONCLUSION

Partial splenectomy is the recommended method for parenchymal preservation, but total splenectomy is preferred when the splenic cyst is oversized or cannot be excised with safety.

REFERENCES

1. Shahi K, Geeta B, Rajput P; Splenic pseudocyst: A diagnostic challenge. The Internet Journal of Surgery, 2008; 19(2). Available from <https://ispub.com/IJS/19/2/3952>
2. Geraghty M, Khan IZ, Conlon KC; Large primary splenic cyst: A laparoscopic technique. J Minim Access Surg., 2009; 5(1): 14-16.
3. Avital S, Kashtan H; A large epithelial splenic cyst. N Engl J Med., 2003; 349(22): 2173-2174
4. Safioleas M, Misiakos E, Manti C; Surgical treatment for splenic hydatidosis. World J Surg., 1997; 21(4): 374-378.
5. D'Souza C, Rajashekar, Bhagavan KR; Giant pseudocyst of spleen. Journal of Clinical and Diagnostic Research, 2012; 6(1):110-112.
6. Fowler RH; Non parasitic benign cystic tumours of the spleen. Int Abstr Surg., 1953; 96(3): 209-227.
7. 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.
8. Morgenstern L; Nonparasitic splenic cysts: pathogenesis, classification, and treatment. J Am Coll Surg., 2002; 194(3): 306-314.
9. Kalinova K; Giant pseudocyst of the spleen: A case report and review of the literature. J Indian Assoc Pediatr Surg., 2005;10(3):176-178.
10. Verma A, Yadav A, Sharma S, Saini D, Om P, Khoja H *et al.*; A rare splenic pseudocyst. JSCR 2013; 9. Available from <http://jscr.oxfordjournals.org/content/jscr/2013/9/rjt086.full.pdf>
11. Geraghty M, Khan IZ, Conlon KC; Large primary splenic cyst: a laparoscopic technique. J Minim Access Surg., 2009; 5: 14-16.
12. Chandra S, Maraju N, Bhuvanewari V, Dharanipragada K; Splenic pseudocyst with hypersplenism-therapeutic implications of a rare association. The Internet Journal of Surgery. 2006; 9(2). Available from <https://ispub.com/IJS/9/2/9914>
13. Zinner MJ, Schwartz SI, Harold E; Maingot's Abdominal Operations. 10th edition, Appleton & Lange, New York, 1997:2040.
14. Labruzzo C, Haritopoulos KN, El Tayar AR, Hakim NS; Post-traumatic cyst of the spleen: a case report and review of the literature. Int Surg., 2002; 87(3): 152-156.

15. Sinha PS, Stoker TA, Asaton NO; Traumatic pseudocyst of the spleen. *J R Soc Med.*, 1999; 92(9): 450-452.
16. Kalinova K; Giant pseudocyst of the spleen: a case report and review of the literature. *J Indian Assoc Pediatr Surg.*, 2005; 10(3): 176-178.
17. Morgenstern L; Nonparasitic splenic cysts: pathogenesis, classification, and treatment. *J Am Coll Surg.*, 2002; 194(3): 306–314.
18. Cissé M, Konaté I, Ka O, Dieng M, Dia A, Touré CT; Giant splenic pseudocyst, a rare aetiology of abdominal tumor: a case report. *Cases J.*, 2010; 3: 16.