

CASE REPORT

An Epithelial Splenic Cyst in an Intrapancreatic Accessory Spleen. A Case Report

Zhuo Zhang, Jian Cheng Wang

Department of Surgery, Rui Jin Hospital Medical College Jiao Tong University,
Shanghai, PR China

ABSTRACT

Context Generally, ectopic splenic tissue such as an accessory spleen is reported to have an incidence of 10% in the general population. However, an intrapancreatic accessory spleen has seldom been reported and cyst formation of the intrapancreatic accessory spleen is extremely rare. **Case report** A 26-year-old female patient with no clinical manifestations presented with a cyst in the tail of the pancreas which had been diagnosed by ultrasonography. A spleen-preserving distal pancreatectomy was performed with the presumptive diagnosis of a mucinous cystic tumor originating from the pancreas. The intraoperative frozen section showed the possibility of serous cystadenoma of the pancreas. The pathological examination revealed the cyst to be stratified squamous epithelium and was surrounded by splenic tissue and the final diagnosis was epithelial splenic cyst in an intrapancreatic accessory spleen. **Conclusion** Although great progress has been made with modern imaging techniques, it is still difficult to make a definitive diagnosis of cystic lesions in the pancreas.

INTRODUCTION

An accessory spleen has an incidence of 10% in the general population and 16-20% of accessory spleens are reported to be attached to the tail of the pancreas. The incidence of accessory spleens in the pancreas is rare and cystic formation, which has often been misdiagnosed as a mucinous cystic tumor originating from the pancreas, has seldom been reported. We herein report the case of an epithelial cyst in an intrapancreatic accessory spleen.

CASE REPORT

A 26-year-old female patient with a cystic lesion in the tail of the pancreas was admitted for further evaluation. Clinically, the patient had no symptoms, such as epigastric discomfort, nausea, and dyspepsia or weight loss. She had no history of acute pancreatitis or abdominal trauma. Physical examination did not show any pathological findings. Bilirubin levels and transaminases were within the normal range. Serum amylase, CA 1-99 and CEA were found to be normal in serum analysis.

Ultrasonography imaging demonstrated a cystic lesion in the tail of pancreas adjacent to the spleen. Contrast-enhanced CT scans revealed a cystic lesion without a septum (diameter 2.5 cm) in the tail of the pancreas (Figure 1); contrast-enhanced imaging of the cystic wall revealed a density similar to that of the pancreas. Endoscopic ultrasonography (EUS) imaging showed the same findings as the CT scans and ultrasonography. EUS-guided FNA revealed some monostratum cubical epithelium and the CEA of the aspirated fluid was within the normal serum level.

The patient underwent a spleen-preserving distal pancreatectomy with a presumptive diagnosis of primary mucinous cystic tumor of the pancreas. During the operation, a lesion with a diameter of 2.5cm was found in the tail of the pancreas, closely attached to the spleen and was completely resected (Figure 2). Clear fluid was found in the cyst and an intraoperative frozen section suggested a diagnosis of serous cystadenoma of the pancreas. After the operation, the specimen was sent for histopathological examination. Macroscopically, the lesion had clear borders with the surrounding pancreatic tissue and a unilocular cyst measuring 2.5x2.5 cm was found in its center. Microscopically, the inner surface of the cyst was lined with stratified squamous epithelium without sebaceous or sweat glands. Normal splenic tissue including splenic red pulp, splenic white pulp and trabecula of the spleen was found in the layer of the cystic wall. The exterior of the cyst was composed of fibrous connective tissue and some tubular elements. Final diagnosis of the

Received May 29th, 2009 - Accepted July 20th, 2009

Key words Epidermal Cyst; Pancreas; Spleen

Correspondence Jian Cheng Wang

Department of Surgery, Rui Jin Hospital, Medical College Jiao Tong University, 197 Rui Jin 2 Road, 200025 Shanghai, P.R. China
Phone: +86-21.6437.0045/666.048; Fax: +86-21.5466.1128
E-mail: jiancheng_wang@hotmail.com

Document URL <http://www.joplink.net/prev/200911/03.html>

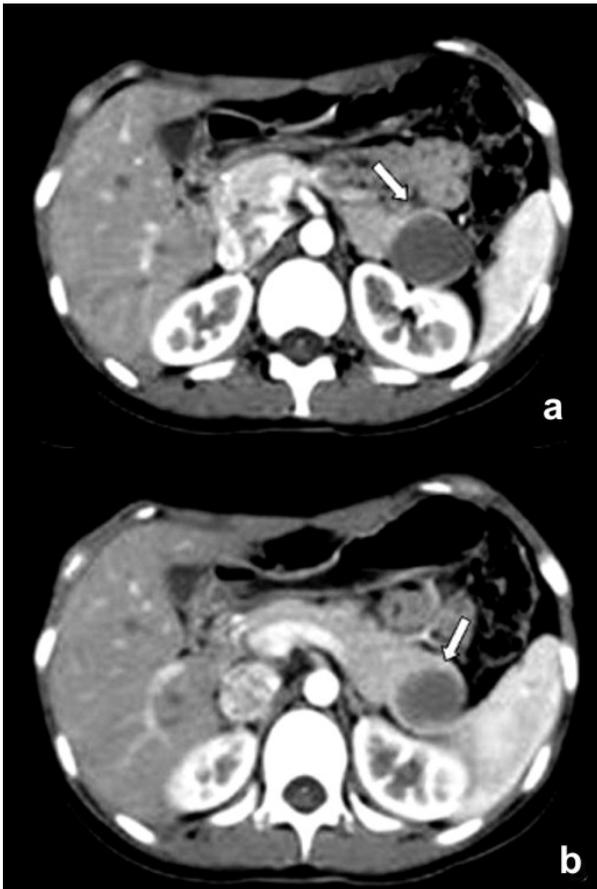


Figure 1. Abdominal computed tomography. A cystic lesion in the tail of the pancreas. No septum was found in the cyst and the lesion measured about 2.5 cm.

lesion was an epithelial splenic cyst in an intrapancreatic accessory spleen (Figure 3).

DISCUSSION

Seventy-five percent of splenic cysts are post-traumatic pseudocysts; other cysts of the spleen can be classified into parasitic and non-parasitic cysts [1, 2]. Cyst formation of an accessory spleen in the tail of the pancreas is extremely rare and only few cases have been reported. Clinically, most patients with this disease have no clinical symptoms or signs and it is often detected incidentally by imaging studies. Serum tumor markers, such as CEA, CA 19-9 and CA 125, have no role in diagnosing this disease [3, 4, 5]. A hypervascular blush of the wall of the cyst, which has the same density on enhanced CT as that of the spleen, was said to be of help in diagnosing this abnormality but not in all cases [6] as was demonstrated in our case. Histologically, epithelial cysts are lined with stratified squamous epithelium with no skin appendages, such as sebaceous and sweat glands [2].

Until now, there have been no reports of malignancy of epithelial splenic cysts of an intrapancreatic accessory spleen. The patient can be followed up without any further treatment if the cyst is small and has no symptoms or signs. Since an epithelial splenic cyst in the pancreas lacks particular characteristics on

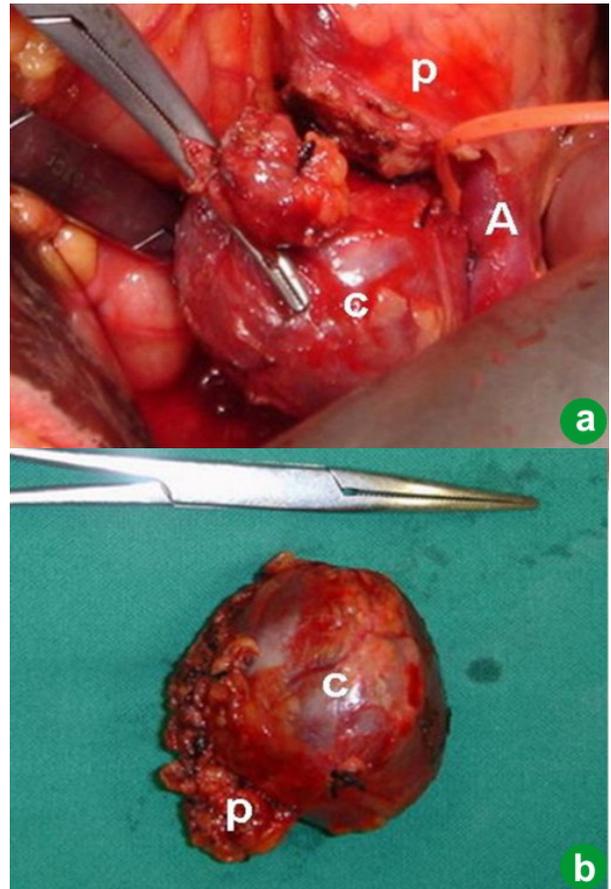


Figure2. The cyst was found in the tail of the pancreas and completely resected with normal pancreatic tissue around it. The spleen was preserved. A: splenic artery; c: cyst; p: pancreas.

radiological examination, it is especially difficult to differentiate it from a pancreatic mucinous cystic lesion. EUS and FNA, together with measurement of CEA levels would provide diagnostic assistance since elevated CEA leads to a mucinous cyst while normal CEA does not. Most cases lacked a proper preoperative

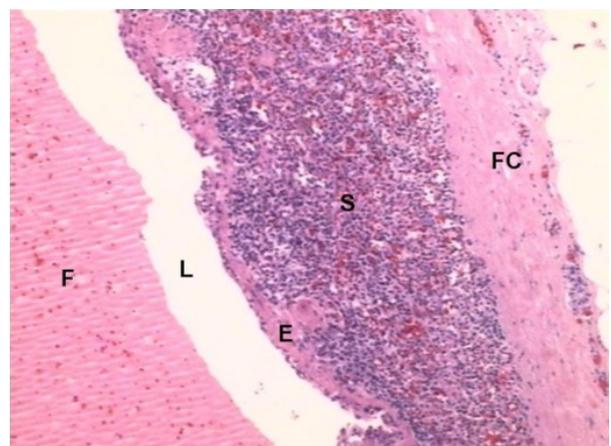


Figure 3. Pathological findings of the cyst (H&E). The cyst contained homogeneous eosinophilic fluid (F) and was lined with stratified squamous epithelium (E). Accessory spleen tissue (S) was found under the epithelium and surrounded by a complete fibrous capsule (FC). L: lumen of the cyst.

diagnosis and therefore the suspicion of a mucinous cyst tumor mandated surgery [7, 8]. Finally, epithelial splenic cysts should be considered in the differential diagnosis of a cystic lesion in the tail of the pancreas, and en-bloc resection of the cyst including normal pancreatic tissue should be performed with preservation of the spleen when possible.

Conflict of interest The authors have no potential conflicts of interest

References

1. Nakae Y, Hayakawa T, Kondo T, Shibata T, Kitagawa M, Sakai Y, et al. Epidermoid cyst occurring in a pancreatic accessory spleen. *J Clin Gastroenterol* 1991; 13:362-4. [PMID 2066557]
 2. Tang X, Tanaka Y, Tsutsumi Y. Epithelial inclusion cysts in an intrapancreatic accessory spleen. *Pathol Int* 1994; 44:652-4.
 3. Higaki K, Jimi A, Watanabe J, Kusaba A, Kojiro M. Epidermoid cyst of the spleen with CA19-9 or carcinoembryonic antigen productions: report of three cases. *Am J Surg Pathol* 1998; 22:704-8. [PMID 9630177]
 4. Furukawa H, Kosuge T, Kanai Y, Mukai K. Epidermoid cyst in an intrapancreatic accessory spleen: CT and pathologic findings. *AJR Am J Roentgenol* 1998; 171:271. [PMID 9648813]
 5. Choi SK, Ahn SI, Hong KC, Kim SJ, Kim TS, Woo ZH, et al. A case of epidermoid cyst of the intrapancreatic accessory spleen. *J Korean Med Sci* 2000; 15:589-92. [PMID 11068999]
 6. Sonomura T, Kataoka S, Chikugo T, Hirooka T, Makimoto S, Nakamoto T, et al. Epidermoid cyst originating from an intrapancreatic accessory spleen. *Abdom Imaging* 2002; 27:560-2. [PMID 12172998]
 7. Kanazawa H, Kamiya J, Nagino M, Uesaka K, Yuasa N, Oda K, et al. Epidermoid cyst in an intrapancreatic accessory spleen: a case report. *J Hepatobiliary Pancreat Surg* 2004; 11:61-3. [PMID 15754048]
 8. Itano O, Shiraga N, Kouta E, Iri H, Tanaka K, Hattori H, et al. Epidermoid cyst originating from an intrapancreatic accessory spleen. *J Hepatobiliary Pancreat Surg* 2008; 15:436-9. [PMID 18670847]
-