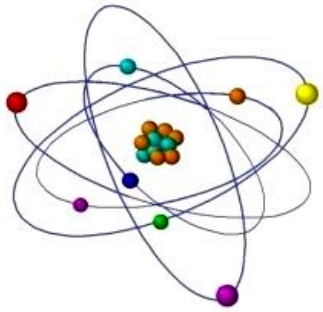
ACCESSORY SPLEEN CYST: A CASE REPORT



Urushadze O.P., Tortladze I.M., Karanadze K.M., Labuchidze M.R., Goletiani T.G.

Radiology Department, The First University Clinic, Tbilisi State Medical University

*Corresponding author: iraklitortladze@yahoo.com

ABSTRACT: *Cystic disease of the spleen is a relatively rare disease. It is classified either as a true primary cyst or as a secondary pseudocyst. Most splenic cysts are pseudocysts, which have non-epithelial lining, and are caused by previous abdominal blunt trauma. Conversely, primary splenic cysts have epithelial lining and are subdivided into parasitic and non-parasitic cysts. The non-parasitic primary splenic cyst is considered congenital and comprises about 10% of all splenic cysts. Total or partial splenectomy is the treatment of choice, but parasitic infection must be excluded prior to an operation. In this present report, we described a symptomatic and managed non-parasitic extra splenic cyst.*

Key words: accessory spleen cyst, rare radiological diagnosis, computed tomography

INTRODUCTION

Cystic disease of the spleen is relatively rare, with an incidence of 0.07% [1,2]. The splenic cysts are categorized either as primary (true cysts) or as secondary (pseudocysts). The latter is mostly caused by abdominal trauma and has no epithelial lining in the cystic lumen. Conversely, a primary splenic cyst has an epithelial lining of the lumen.

Additionally, primary splenic cysts are further subdivided into parasitic and non-parasitic cysts. The non-parasitic primary splenic cyst is considered congenital and comprises about 10% of all splenic cysts. An accessory spleen is identical to a normal spleen in terms of function and structure. It is formed by a developmental defect, in the 5th week of embryogenesis [1,2,3,6]. Accessory spleens are found in approximately 10 – 15 % of the general population [4,5,6]. They may be found anywhere along splenic vessels, 1-2% pancreatic tail, the great omentum, the mesentery, or the gonads, most commonly: splenic hilum [3]. We present here a rare case of accessory primary non-parasitic splenic cyst that is confirmed by pathologic diagnosis after partial splenectomy. The combination of these two conditions is very rare in clinical practice.

CASE REPORT

A 22-year-old female with dull abdominal pain of several days duration was referred to our hospital from a local clinic, where abdominal ultrasonography (US) revealed a large cystic mass in the spleen (Fig.1).

On abdominal examination, a soft non-tender mass was palpable in the left upper quadrant. Her medical history was notable only for an appendectomy performed several years ago. She had no other traumatic event in the abdomen. Her vital signs were stable and all laboratory findings were within the normal range. Abdominal computed tomography (CT) scan revealed the splenic cyst to measure 14 cm in diameter with scoliosis most likely due to mass effect.

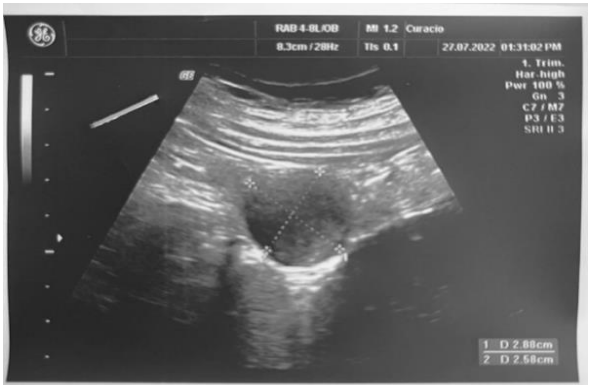


Fig.1. Ultrasound-US accessory spleen cyst Abdominal ultrasound revealed round, avascular, non-homogenous patterns of a cyst mass(25x28mm) in the left upper abdominal quadrant.

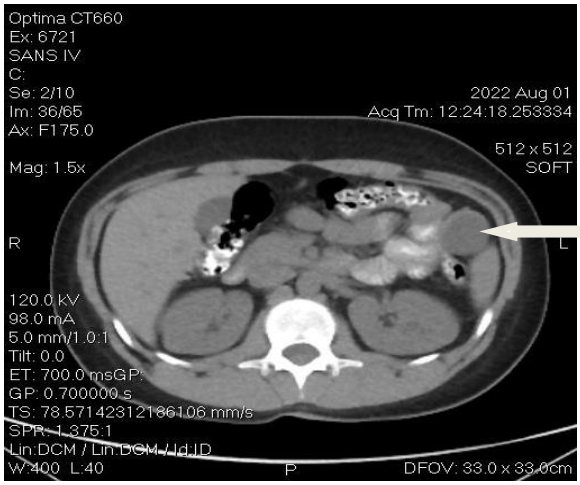


Fig. 2. Abdominal CT, accessory spleen cyst

On the abdominal CT scan, a round-shaped, non-homogenous growth with straight edges was detected at the edge of the spleen. The inside of the growth contained fluid. With contrast enhancement, the cystic formation has its own blood supply. It is a branch of the splenic artery.

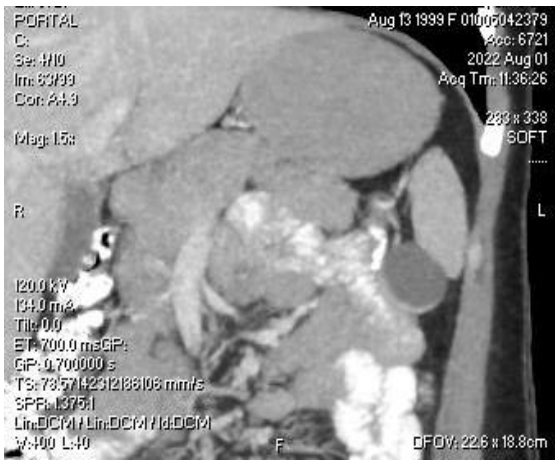


Fig. 3. Abdominal CT, Accessory spleen cyst, branch of the splenic artery.

The patient was offered open or laparoscopic partial resection of the spleen, and the patient opted for open surgery for financial reasons. On laparotomy, the cyst was found to arise from the spleen. It was adhered to the left lateral side of the liver and left stomach wall. The cystic fluid was carefully aspirated to avoid rupture into the operation field. After this, the whole cyst was excised in a partial splenectomy. A closed drain was left near the splenectomy site. The result of the serologic hydatid antibody test had been notified several days after the operation and was negative. Both carbohydronic antigen 19-9 (CA 19-9) and carcinoembryonic antigen (CEA) of the cystic fluid were over 1,000 U/ml respectively. The pathologic report indicated a primary splenic cyst with cyst walls containing stratified squamous epithelial cells. The patient was discharged on the 10th postoperative day without complications.

DISCUSSION

Accessory spleens are found in approximately 10 – 15 % of the general population. They may be found anywhere along splenic vessels, 1-2% pancreatic tail, The great omentum, the mesentery, or the gonads, most commonly: splenic hilum. [1,2,4,5]. Cystic disease of the spleen is relatively rare, with an incidence of 0.07%.1 The splenic cysts are categorized either as primary (true cysts) or as secondary (pseudocysts). The latter is mostly caused by abdominal trauma and has no epithelial lining in the cystic lumen. Conversely, a primary splenic cyst has an epithelial lining of the lumen.
Additionally, primary splenic cysts are further subdivided into parasitic and non-parasitic cysts [7,8]. The non-parasitic primary splenic cyst is considered congenital and comprises about 10% of all splenic cysts. Total or partial splenectomy is the treatment of choice, but parasitic infection must be excluded prior to an operation. In this case, abdominal ultrasonography (US) had revealed a large cystic mass in the spleen, and abdominal ultrasound revealed round, avascular, non-homogenous patterns of a cyst mass (25x28mm) in the left upper abdominal quadrant. Abdominal computed tomography (CT) scan revealed the splenic cyst to measure 14 cm in diameter with scoliosis most likely due to mass effect, on abdominal CT scan a round-shaped, non-homogenous growth with straight edges was detected at the edge of the spleen. The inside of the growth contained fluid, and with contrast enhancement, the cystic formation has its own blood supply. It is a branch of the splenic artery, the tissue is painted as the spleen parenchyma, and the density of the remaining hypodense area does not change.

Radiological diagnosis: Accessory Spleen Cyst

Surgery and the morphological study of the obtained material confirmed the radiological diagnosis. Accessory splenic tissue is identical to the splenic tissue by histomorphological examination, with typical red and white pulp. The result of the serologic hydatid antibody test had been notified several days after the operation and was negative. Both carbohydronic antigen 19-9 (CA 19-9) and carcinoembryonic antigen (CEA) of the cystic fluid were over 1,000 U/ml respectively. The pathologic report indicated a primary splenic cyst with cyst walls containing stratified squamous epithelial cells.

CONCLUSION

The accessory splenic cyst is very rare in clinical practice. Accurate diagnosis derives from pathological examination after surgical removal. Radiological findings and the features of contrast-enhanced CT are very important to make a correct preoperative diagnosis.

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