IJSCIA

International Journal of Scientific Advances
ISSN: 2708-7972
Volume: 5 | Issue: 6 | Nov – Dec 2024 Available Online: www.ijscia.com
DOI: 10.51542/ijscia.v5i6.60

Giant Splenic Epithelial Cyst in an Elderly Woman: A Rare Case Report

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ABSTRACT

Background: Giant splenic cysts are rare, and epithelial cysts of the spleen are even rarer, with an incidence of approximately 0.07%. These cysts are often asymptomatic and are usually discovered incidentally. When symptomatic, they can present with vague abdominal discomfort and gastrointestinal symptoms, which pose challenges in diagnosis and management. ***Case presentation:*** A 60-year-old female presented with a 7-month history of intermittent epigastric pain, early satiety, and a gradual decrease in appetite. Physical examination revealed a firm, non-tender mass in the left hypochondrium. Abdominal computed tomography (CT) confirmed a large cystic lesion in the spleen, measuring 15 cm. The diagnosis of a giant splenic epithelial cyst was made. The patient underwent splenectomy, and her postoperative course was uneventful. ***Conclusion:*** This case highlights the importance of considering giant splenic epithelial cysts in the differential diagnosis of abdominal masses, particularly in elderly patients. Early diagnosis and timely surgical intervention are crucial for effective management and favorable outcomes.

Keywords: giant splenic cyst; splenectomy; rare case report.

INTRODUCTION

Splenic cysts are relatively uncommon, with primary splenic epithelial cysts being even rarer, comprising approximately 0.07% of all splenic cysts. These cysts may be asymptomatic and are often discovered incidentally during imaging studies for unrelated conditions.[1,2] While most splenic cysts are benign, their size and potential complications, such as rupture or infection, can cause significant clinical symptoms, necessitating prompt diagnosis and treatment.[3] Due to their infrequent occurrence, splenic cysts present a challenge in clinical practice, both in terms of diagnosis and management.[4]

Primary splenic cysts are uncommon, with the majority being classified as epithelial cysts.[5] These cysts are typically divided into two categories: true cysts, which have an epithelial lining on the cyst wall, and pseudocysts, which lack this lining. Although splenic cysts are generally benign, their malignant potential is considered low. However, in cases of giant true splenic cysts, elevated levels of carbohydrate antigen 19-9 (CA19-9) have been reported.[6] Despite their rarity, these cysts can manifest with a variety of nonspecific symptoms, such as pain in the left upper quadrant, early satiety, and general discomfort, which can often be confused with more common gastrointestinal or splenic conditions.[7,8]

In the case of larger cysts, particularly those greater than 5 cm in size, the symptoms become more pronounced and can lead to complications such as splenic rupture or torsion.[9,10] Diagnostic imaging, including abdominal ultrasound and computed tomography (CT) scan, plays a crucial role in identifying the size, location, and characteristics of the cyst, which aids in determining the appropriate management strategy.[11,12] While many cysts remain asymptomatic, symptomatic or large cysts typically require surgical intervention to prevent potential complications and improve the patient's quality of life.[13]

We report a rare case of a giant splenic epithelial cyst in a 60-year-old female, which highlights the diagnostic challenges and therapeutic decision-making in managing such rare entities. This case underlines the importance of early recognition and timely intervention, as well as the need for individualized treatment approaches based on the cyst's size, symptoms, and the patient's overall health. Surgical treatment options vary, and the preservation of splenic tissue must be considered where possible, particularly in elderly patients.

CASE REPORT

A 60-year-old female presented to our clinic with complaints of persistent epigastric pain for the past seven months. The pain was intermittent and associated with early satiety, but there was no history of vomiting or nausea. The patient reported a gradual decrease in appetite and a sense of bloating. Given her age and medical history, which included hypertension and osteoarthritis, she was initially evaluated by her primary care physician. Based on her symptoms, a CT scan was performed, revealing a splenic mass, leading to a referral to a surgical specialist.

On physical examination, a firm, non-tender mass was palpable in the left hypochondrium. The patient

appeared mildly fatigued but was in stable condition. Her vital signs were as follows: blood pressure 135/85 mmHg, pulse 72 beats per minute, respiration 20 breaths per minute, oxygen saturation 97% on room air, and body temperature 37.1°C.

Laboratory examination revealed a hemoglobin level of 10.2 g/dL, a leukocyte count of 5,800 cells/mm^3, and a platelet count of 175,000 cells/mm^3. Other blood parameters included hematocrit at 31.5%, erythrocyte count of 4.08 million/mcL, MCV at 77.1 fL, MCH at 24.5 pg, and MCHC at 32.0 g/dL.

A chest X-ray (PA view) showed no significant abnormalities, with a normal cardiothoracic ratio (Figure 1). Abdominal imaging with CT scan without contrast revealed a large cystic mass in the spleen, measuring approximately 11 × 15 × 13 cm. The findings suggested a splenic cystic neoplasm (Figure 2).

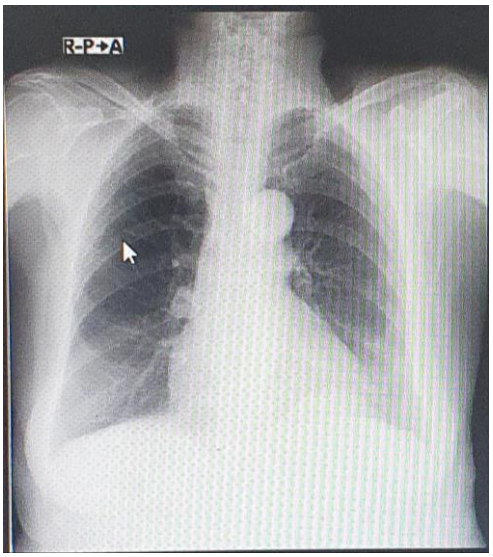

FIGURE 1: Thorax PA showing Cor prominent and Aortosclerosis.

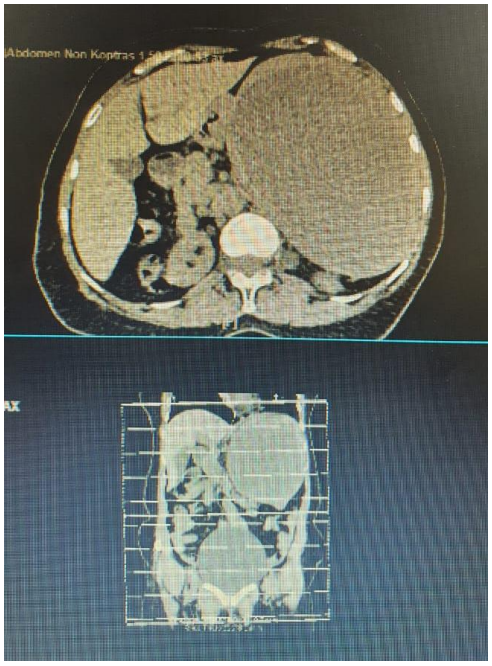

FIGURE 2: CT scan of the abdomen and pelvic without contrast.

During splenectomy, intraoperative findings revealed a deformed spleen, with a smooth-surfaced mass, and the spleen measured 15 cm in diameter. The cyst was large, non-hemorrhagic, and encapsulated (Figure 3). The patient underwent splenectomy, and the post-operative clinical course was satisfactory with no complications.

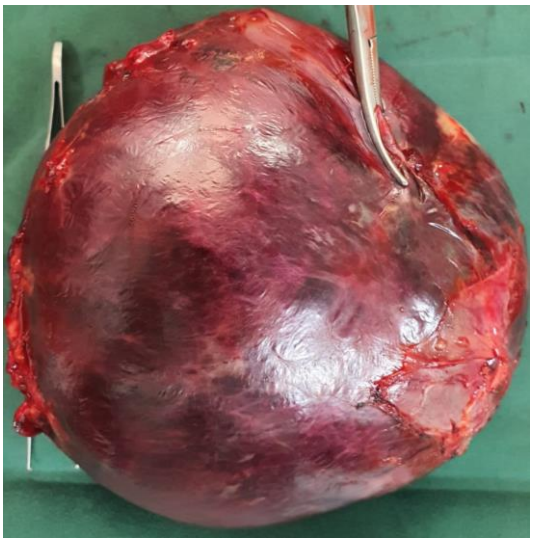

FIGURE 3: Durante operative findings.

DISCUSSION

Splenic cysts are rare and often discovered incidentally, accounting for less than 0.07% of all abdominal cystic lesions.[1,2] While most splenic cysts are asymptomatic, larger cysts, particularly those over 5 cm, can present with vague abdominal discomfort, left upper quadrant pain, and early satiety, posing diagnostic challenges.[4,9,10,13] In this case, the patient presented with persistent epigastric pain and early satiety for several months, likely due to the compressive effect of the large 15 cm cyst on adjacent structures, including the stomach. Such symptoms are typical for larger splenic cysts, which can cause both discomfort and functional impairment due to pressure on the surrounding organs.[8,9,14,15]

As cysts increase in size, the symptoms often become more pronounced. When the cyst diameter exceeds 5 cm, the patient may experience a palpable mass and increased discomfort, along with a sensation of fullness or early satiety due to the compression of the stomach, limiting its capacity to expand after meals.[1,4,16] In our patient, the presence of a large cyst led to significant functional impairment, impacting her quality of life. This clinical presentation necessitated surgical intervention to prevent further complications.

Laboratory findings in splenic cysts are generally non-specific, and routine blood tests may not provide clear diagnostic clues.[12] In this case, the patient's blood tests revealed a normal white blood cell count and platelet levels, which helped rule out infection or hematologic disorders. However, the mildly decreased hemoglobin level of 10.2 g/dL could be attributed to chronic symptoms, including decreased food intake and a history of mild anemia,

rather than an active disease process. Although laboratory investigations can help exclude other conditions, they do not provide definitive diagnostic information for splenic cysts, highlighting the importance of imaging in diagnosis.[5,12,17]

Imaging plays a crucial role in the diagnosis of splenic cysts, particularly when the cyst is large or symptomatic.[18] In this case, abdominal computed tomography (CT) without contrast revealed a large cystic mass in the spleen measuring 11 × 15 × 13 cm. CT imaging provided essential details on the size and relationship of the cyst with surrounding structures, confirming the diagnosis of a giant splenic cyst.[19] CT scans are highly effective in evaluating the characteristics of splenic cysts and guiding treatment decisions.[4,20,21]

Given the size and symptomatic nature of the cyst, surgical intervention was indicated. Splenectomy is considered the treatment of choice for large or symptomatic splenic cysts, as it offers a definitive solution and prevents recurrence.[3,22] Although other surgical options, such as cyst aspiration or partial splenectomy, may be considered, splenectomy remains the most effective approach for large cysts, as it completely removes the cyst and reduces the risk of complications.[3,4,19,22,23] In this patient, splenectomy was performed successfully due to the large size of the cyst and its associated symptoms.

Postoperatively, the patient's recovery was uneventful, which is consistent with the generally favorable prognosis following splenectomy for splenic cysts. [22]While splenectomy carries risks, including bleeding and infection, these complications are rare, particularly in healthy elderly patients. After surgery, the patient was monitored for signs of infection due to the loss of splenic immune function, but the risk of significant complications remained low.[5,23] She had an uneventful recovery and was discharged without complications, supporting the notion that splenectomy is a safe and effective treatment option for giant splenic cysts in elderly patients. The overall prognosis for patients undergoing splenectomy for splenic cysts is excellent, especially in those who are otherwise healthy.

CONCLUSIONS

Giant splenic epithelial cysts, though rare, can present with significant clinical symptoms such as abdominal pain and early satiety when they reach large sizes. Early diagnosis through imaging, such as CT scans, is crucial for identifying symptomatic cysts and preventing complications. Surgical intervention, particularly splenectomy, is the treatment of choice for large, symptomatic splenic cysts, as it offers a definitive solution and prevents recurrence. The prognosis following splenectomy is generally excellent, even in elderly patients, with minimal postoperative complications. This case underscores the importance of prompt diagnosis and appropriate surgical management in ensuring favorable outcomes for patients with giant splenic cysts.

ACKNOWLEDGMENTS

all authors and all support in research.

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