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Congenital cyst in female accessory spleen: a case report

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Research Ethics Committee Approval (if necessary): We declare that the patient approved the study by signing an informed consent form and the study followed the ethical guidelines established by the Declaration of Helsinki.

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Abstract

Cysts found in splenic stores, of parasitic or non-parasitic origin, are rare causes of recurrent abdominal pain, but with a significant increase in the number of diagnoses in recent years. This condition is caused by the derivation of the mesothelial cell lining of the spleen capsule, occurring in 0.5 - 2% of the world population. Clinically, patients tend to remain asymptomatic for years and usually have an incidental diagnosis by imaging exams or during the investigation of diffuse and recurrent abdominal pain, rarely found in females. The treatment of splenic cysts is performed through video laparoscopic splenic resection.

Keywords: Epithelial Cyst; Accessory Spleen; Video laparoscopic.

Introduction

Splenic cysts are rare occurrences. In 1829, Andral was responsible for the first description of a non-parasitic spleen cyst. As early as 1978, Robbins reviewed a series of autopsies, finding 32 cases of splenic cysts. Later, isolated cases were reported and, in 1978, were confirmed cases in the world literature. Splenic cysts can be classified into: Type I – called true, which are cysts with a capsule, whose lining is squamous epithelial, and Type II – called secondary or pseudocysts [1].

In addition, congenital splenic cysts comprise approximately 25% of true cysts in the spleen, diagnosed mainly in children and young adults. Most non-parasitic cysts are pseudocysts secondary to trauma. Although the exact mechanism of its

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pathogenesis is still unknown, proposed mechanisms include: the involution of pluripotential cells from the splenic parenchyma during development with subsequent squamous metaplasia or origin from peritoneal endothelial cells or coelomic mesothelium.

Splenic cysts are often asymptomatic and found incidentally during abdominal imaging, having been increasingly recognized since the advent of ultrasound and computed tomography. If symptoms are present, the most commonly reported include: feeling of fullness and upper abdominal discomfort, pleuritic chest pain, shortness of breath, back or shoulder pain, or even renal symptoms due to compression of the left kidney, and a palpable abdominal mass may occur [2].

In many cases, the presence of symptoms is related to the size of the cysts. Smaller than eight centimeters are never symptomatic. Large splenic cysts (defined in the literature as larger than eight centimeters) can cause weight pain in the left hypochondrium by distension of the splenic capsule or by compression of adjacent structures. Epithelial cells are often positive for tumor markers CA 19-9 and CEA (carcinoembryonic antigen).

Diagnostically, on plain abdominal radiography, the presence of a mass, which may be calcified, in the upper left quadrant may be noticeable. On the other hand, on ultrasound (USG) of the total abdomen, the splenic cyst appears as a homogeneous mass, with thin walls. Calcifications are useful to differentiate cysts from other causes and splenomegaly.

On computed tomography (CT), cystic lesions are spherical, well-defined, with a thin or imperceptible capsule. Abdominal CT is more sensitive than ultrasound in identifying septa (most common in true cysts) or calcifications (most common in false cysts). Angiography can be helpful in differentiating a splenic cyst, which is normally avascular, from a solid malignant mass (lymphoma, sarcomas), usually presenting a disorganized pattern of vascularization [3].

Under microscopy, the cyst is lined internally with columnar tissue, cuboid, or epithelium scaly. Splenic cysts can be subdivided into dermoid, mesothelial, and epidermoid cysts. Laparotomy with splenectomy has been the method of choice for the treatment of many splenic cysts.

Due to the increased risk of complications, splenic cysts with a diameter greater than 4-5 centimeters should receive surgical treatment, as conservative treatment options, such as percutaneous aspiration or sclerosis, do not have good long-term control [4].

Case report

Primarily, we declare that the patient approved the study by signing an informed consent form and that the study followed the ethical guidelines

established by the Declaration of Helsinki.

This is a Brazilian female patient, 22 years old, without comorbidities or allergies, coming from a hospital unit, presenting, for about 02 years, discomfort in the left hypochondrium of light weight intensity that worsened on exertion, but without cause of limitations and no other complaints.

The abdomen was flaccid and flat, without pain on palpation, visceromegaly or palpable masses. She had tumor marker exams with normal reference values (CEA, CA-125, CEA-19.9, ALPHA-FETOPROTEIN). She underwent total abdominal US, showing a hypoechoic nodular image between the spleen and the left kidney, with regular contours and well-defined size. Computed Tomography shows an oval image medially to the spleen, which may represent an accessory spleen of 4 cm, with a cystic lesion in the interior with peripheral parietal calcifications, which may correspond to a pseudocyst of about 3.7 cm.

In Magnetic Resonance, he presented a spleen with normal contours and intensity. Nodular image with well-defined contours and located in the splenic hilum region with signal intensity and contrast enhancement with an aspect similar to the spleen, associated with a cystic image in its interior with homogeneous content and walls with accentuated low signal in T2 (calcifications). Pancreas of normal contour and intensity.

No evidence of lymph node enlargement. The patient underwent video laparoscopic accessory spleen splenectomy, presenting an accessory spleen with calcifications, associated with an ectopic pedunculated mini spleen in an epiploon adjacent to the accessory spleen (Figure 1). Habitual spleen in common location, without macroscopic changes. After surgical intervention, the patient progressed satisfactorily uneventfully during hospitalization, being discharged from the hospital after 24 hours, with guidelines for outpatient return and a prescription for symptomatic patients.

The patient returned for a medical return within 07 days, without the presence of changes, complications or complaints. Histological analysis of the collected material (Figure 2) was compatible with a congenital (epithelial) cyst in an accessory spleen. Negative for neoplastic cells in the respective collected material.

Discussion and Conclusion

Despite having a clinical picture compatible with those described in the literature, this case stands out among those published, due to its rarity in females and the limited number of cases.

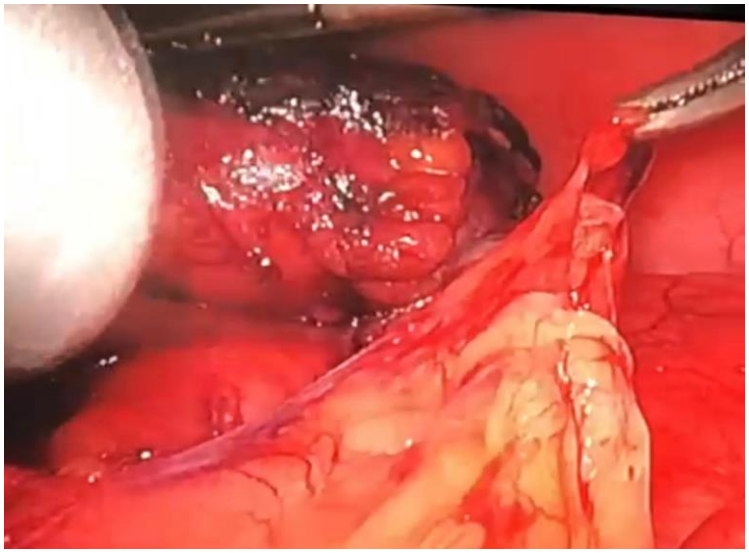

Figure 1. Videolaparoscopic Accessory Spleen Splenectomy.

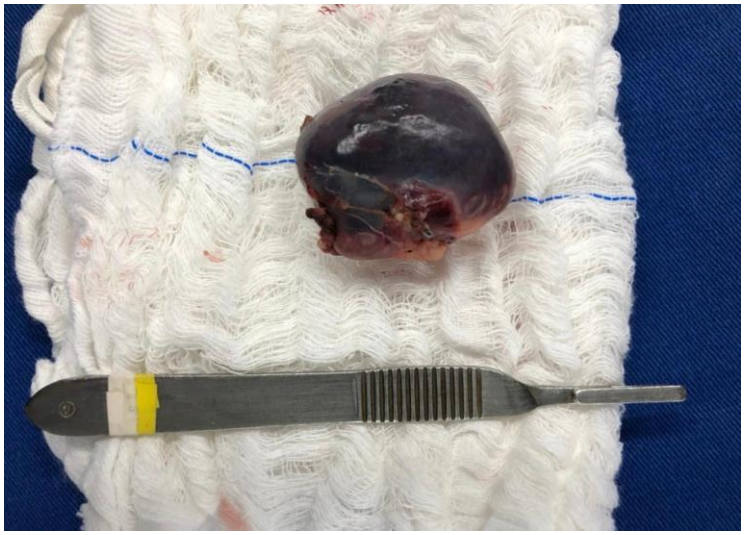

Figure 2. Finding of a Congenital Cyst removed from an Accessory Spleen.

In cases of splenic cysts, splenectomy is the treatment of choice, even for asymptomatic cases or with few symptoms, aiming to avoid complications such as rupture, hemorrhage or infection. Currently, in cases of asymptomatic patients with cysts smaller than two centimeters and who do not present calcifications, increased internal or collateral circulation, clinical observation can be chosen at medical discretion [5].

In addition to offering the benefits of minimally invasive access, laparoscopic splenectomy presents lower morbidity than open surgery, in addition to comparable efficacy in the treatment of hematologic diseases.

Preoperative splenic artery embolization can be used, this technique has been advocated as a way to reduce the size of the spleen, operative bleeding and surgical time. However, complications related to this procedure include intense postoperative pain, bleeding, retroperitoneal necrosis, splenic abscess and it was abandoned by most authors in the literature.

Despite being associated with greater technical difficulty and longer surgical time; splenomegaly is not a contraindication for laparoscopic splenectomy [6]. It is worth emphasizing that Franciosi et al and Park et al report equal or shorter length of stay, morbidity and mortality for patients undergoing video laparoscopic splenectomy when compared to patients undergoing open splenectomy after patient positioning, preoperative preparation and incisions, adhesion lysis is performed, necessary even when there is no previous surgery, to detach the splenic angle of the colon, avoiding inadvertent injuries due to passage of electrical current.

A careful intraoperative inventory of the cavity is performed, delimiting the presence of accessory spleens and concomitant pathologies. Inspection starts with the jejunum-ileum, passing through the transverse colon, mesentery root, stomach, short vessels, splenocolic ligament and splenic hilum, the last three corresponding to the location of most cases. Followed by resection of the cyst found. There are comparative dilemmas between this type of procedure and splenectomy, the main difference between video laparoscopic studies and the open approach being the type of complications present, such as serous collections, intraabdominal hematomas and pleural effusion. In contrast, in series of patients undergoing open splenectomy, the prevalence of severe complications is significantly higher: with the presence of postoperative liver abscess requiring drainage and even pulmonary embolism [7].

Low morbidity rate, short hospital stays and rapid return to normal activities makes video laparoscopic splenectomy the procedure of choice for elective splenectomy, especially in findings of cysts that did not adhere to several splenic regions, facilitating the investigation of its benign or neoplastic origin [8].

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