Laparoscopic Treatment of a Benign Splenic Cyst

Tratamento Videolaparoscópico de Cisto Esplênico Benigno

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RESUMO INTRODUÇÃO: Cisto esplênico é doença incomum na prática cirúrgica diária. O tratamento cirúrgico tem sido recomendado primariamente para cistos congênitos > que 4 cm para evitar complicações. A abordagem laparoscópica tem sido utilizada atualmente devido a morbidade da esplenectomia aberta parcial ou total. Este estudo tem por objetivo apresentar um caso de cisto esplênico benigno tratado por acesso videolaparoscópico. RELATO DO CASO: Paciente de 28 anos, sexo masculino, sem queixas anteriores, foi admitido apresentando epigastralgia, queimação e saciedade precoce. A tomografia computadorizada do abdome observou uma grande massa cística dentro do baço. Os exames laboratoriais pré-operatórios estavam normais e o paciente foi submetido a laparoscopia. A cisto esplênico foi ressecado, retirado através do portal umbilical e enviado para exame histológico. O período pós-operatório do paciente foi satisfatório e recebeu alta hospitalar após três dias de internação. CONCLUSÃO: A abordagem laparoscópica do cisto esplênico é um procedimento de baixa morbidade. Proporciona não somente benefícios perioperatórios distintos, como menos dor e menor tempo de internação hospitalar, mas também resultados efetivos a médio prazo.

Palavras-chave: CISTO ESPLÊNICO; LAPAROSCOPIA; DECAPSULAÇÃO.

ABSTRACT *BACKGROUND: Splenic cyst is an uncommon disease in everyday surgical practice. Surgical intervention is recommended primarily for congenital cysts > 4 cm to prevent complications. The laparoscopic approach has been advocated in recent years due to the morbidity of open total or partial splenectomy. The aim of this study is to present a case of laparoscopic treatment of a benign splenic cyst. CASE REPORT: A 28-year-old male, in otherwise-excellent health presented with vague epigastric abdominal pain, heartburn and early satiety. Computerized tomography observed a large cystic mass within the spleen. All preoperative laboratory tests were normal, and the patient was subject to laparoscopy. The entire extrasplenic cyst was thus resected, extracted through umbilical port, and sent for histological examination. The postoperative clinical course of the patient was satisfactory, and was discharged on the third postoperative day. CONCLUSION: Laparoscopic decapsulation of splenic cyst is a procedure of low morbidity. It provides not only distinct perioperative benefits, including less pain, and shorter hospital stay, but also effective medium-term results.*

Key words: SPLENIC CYST; LAPAROSCOPY; DECAPSULATION.

TORRES OJM, LUCENA LC, MATOS JUNIOR EM, COSTA KO, COSTA ACFBB, FREITAS LHL. Laparoscopic Treatment of a Benign Splenic Cyst . Rev bras videocir 2006;4(3):118-121.

Recebido em 23/10/2006 Aceito em 06/11/2006

Splenic cyst is an uncommon disease in everyday surgical practice. They are classified as either parasitic cysts (hydatid) or nonparasitic cysts, which include true cysts (primary, epithelial cysts) and false cysts (secondary, pseudocysts, non-epithelial). Most of the cysts are asymptomatic, and they are incidental findings during abdominal ultrasonography. The symptomatic cysts commonly present with abdominal pain, and there may be palpable splenomegaly or a left up quadrant mass. Surgical intervention is recommended primarily for congenital cysts > 4 cm to prevent complications such as rupture, hemorrhage, and infection[2,5]. Treatment options for

nonparasitic splenic cyst include partial splenectomy, total cystectomy, and decapsulation. Because open total or partial splenectomy might subject the patient to considerable morbidity, the laparoscopic approach has been advocated in recent years[1,6,7]. The aim of the present study was to present a case of laparoscopic cyst decapsulation in the management of congenital splenic cyst.

CASE REPORT

A 28-year-old male, in otherwise-excellent health presented with vague epigastric abdominal pain, heartburn and early satiety. Past medical history was negative, and physical examination revealed a palpable mass in the left upper quadrant of the abdomen.

The upper endoscopic evaluation revealed mild gastritis and a computerized tomography observed a large cystic mass, within the spleen, measuring approximately 14.0 x 12.0 cm (Figure).

All preoperative laboratory tests were normal, and the patient was subject to laparoscopy.

A 10-mm laparoscopic port was placed in the umbilical position using an open cut-down technique with direct visualization of the peritoneum prior to insertion. A 12 mmHg pneumoperitoneum was created, followed by insertion of a 30° laparoscope connected to a video system. A thorough inspection of the abdomen revealed a large cyst located along the superior aspect of the spleen. Three additional ports were inserted under direct vision. A 10-mm port was placed parallel to the umbilical port, along the anterior axillary line. A 5-mm port was placed midline, approximately 5 cm cephaled to the umbilical port. A third port, 5 mm, was placed to the right of midline within the right upper quadrant. First, the cyst was decompressed via a trocar drainage catheter inserted into the midportion of the cyst. Approximately 1,500 mL of yellowish serous fluid was evacuated and sent for cytology and microbiologic study. A scissor was used to open the extrasplenic cyst from the site of needle drainage. The cyst wall was excised using monopolar cautery. The entire extrasplenic cyst was thus resected, extracted through umbilical port, and sent for histological examination. The spleen was inspected for hemostasis. The skin sites were closed in a subcuticular fashion using a 3.0 Monocryl® suture. Total duration of the procedure was approximated 95 min.

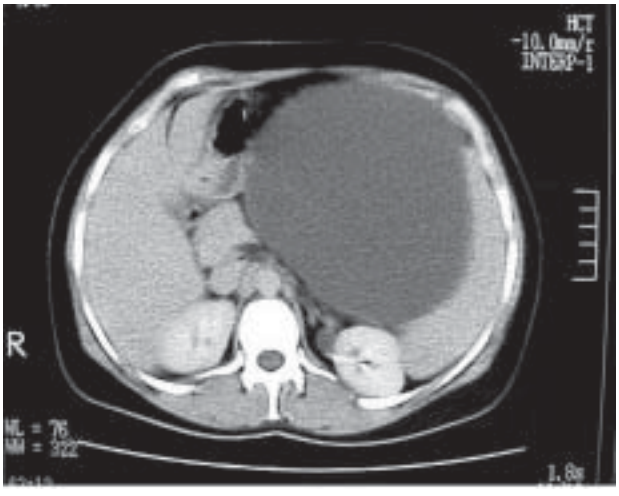

Figure: *A large cystic mass within the spleen.*

The patient tolerated the procedure well and postoperative clinical course was satisfactory, without complications. The patient resumed oral diet on the first postoperative day, and was discharged on the third postoperative day. Bacteriological cultures of the fluid were negative. Histological examination of the cyst revealed a wall composed of both fibrous tissue and epithelial elements, consistent with a true cyst. After six-months follow-up there was no evidence of recurrence or other possible complication.

DISCUSSION

Splenic cyst presents as an asymptomatic abdominal mass or with signs and symptoms of local compression of adjacent structures. Pain in the left upper quadrant due to the enlargement and early satiety are common. Cysts are also discovered after presentation for the complications of rupture, infection, or intracystic hemorrhage. They can be also found incidentally during physical or

radiological exam done for other reasons. Malignant transformation has also been described[2,5].

Pseudocysts were thought to be result of trauma to the spleen with intracapsular hemorrhage and organization of a fibrous cyst wall. Importantly, both epithelial and fibrous elements are often seen histologically within cyst wall specimens from patients who give a history of trauma. Computerized tomography (CT) scan is more useful because it can clearly establish size, position and type of fluid content; however, the CT examination could not be diagnostic for the nature of the cyst. Epithelial cysts are thought to be more common in younger patients[1,4,3,6,7].

Indications for surgery treatment of splenic cysts include all symptomatic cysts and cysts larger than 5 cm in diameter. Treatment goals include elimination of the cyst and prevention of recurrence[1,3,4].

The choice of surgical techniques is of special interest. For a long time, total splenectomy was considered to be the treatment of choice for all kinds of splenic lesions, including nonparasitic cyst. The spleen plays an important immunologic role, and there is an increasing awareness of potential early and late complications of splenectomy. The life-long risk of the development of overwhelming postsplenectomy septic complications has been proven, resulted in a more conservative attitude in splenic surgery. Preservation of at least 25% of the spleen offers protection against pneumococcal bacteremia. Treatment options including aspiration, internal or external marsupialization, partial splenectomy, cystectomy, or partial cyst decapsulation have been reported and represent the method of choice. These treatments can be performed by open or laparoscopic surgery[2,3,5,7]. More conservative treatments including percutaneous drainage with ultrasound or CT guidance have not been successful in preventing recurrence, infection, or bleeding. At present, splenectomy should be performed only when spleen-preserving techniques are technically not feasible[2,5,6,8].

Splenic cysts may be managed appropriately by partial cystectomy and omental packing. The method is safe, has minimal risks, and is associated with a short stay and early return to regular activity. A potential drawback of this procedure, whether performed laparoscopically or not, is the risk of recurrence caused by cyst remnants. Laparoscopic splenic cystectomy is, however, expected to prevent cyst-related complications while providing the necessary pathological diagnosis[1,4,6,7].

The spleen is well visualized laparoscopically. The avoidance of an upper abdominal incision decreases the postoperative pain and discomfort for the patient and shortens length of hospitalization. Laparoscopic surgery provides a minimal access method to approach small true cysts of the spleen. In choosing an appropriate surgical procedure of low morbidity the laparoscopic approach provides safe, definitive treatment of benign splenic cysts. In conclusion, laparoscopic decapsulation of splenic cyst offers not only distinct perioperative benefits, including less pain, and shorter hospital stay, but also effective medium-term results. Thus, the minimally invasive technique should be considered an advantageous alternative to open surgery[1,4,7,8].

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