Laparoscopic Removal of a Mesenteric Cyst Together with the Calculous Gallbladder: A Case Report

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The incidence of mesenteric cysts is relatively uncommon. Sprague[8] examined its frequency and noted that five large hospitals located in the Los Angeles area averaged one documented case of mesenteric cyst per 100,000 hospital admissions. The most common location appears to be the mesentery of the small bowel, especially that of the ileum. Cysts of the mesentery of the large bowel are somewhat less frequent, accounting for approximately 38% of the total incidence. Those involving the large bowel most commonly involve the mesentery of the sigmoid colon.[1,2]

CASE HISTORY

A 42-year-old man was admitted to the Department of Surgery, Bugát Pál Hospital, Gyöngyös, with general abdominal pain. An abdominal ultrasound screen showed a double cystic mass located in the mesentery of the sigmoid colon and a calculous gallbladder. The mass occupied the left lower quadrant of the abdomen with minimal tenderness at palpation. Computed tomography (CT) scan demonstrated double fluid-filled masses 4 x 2 cm and 9 x 5 cm in size located in the retroperitoneal region and involving the mesentery of the sigmoid colon. There were no discernible walls (Fig. 1). Laboratory studies revealed a hemoglobin value of 134 g/L and hematocrit of 37.9%. Leukocyte count was 4.3 g/L. Blood urea nitrogen was 4.1 mmol/L; electrolytes were within the normal limits.

A laparoscopic method was chosen for removal of a calculous gallbladder together with the mesenteric cysts. The patient underwent preoperative bowel preparation and antibiotic prophylaxis. Under general anesthesia, pneumoperitoneum was established. A 10-mm laparoscope was inserted through an umbilical cannula and confirmed the presence of a double cystic mass arising from the mesentery of the sigmoid colon. Accessory ports were established as shown in Figure 2.

For the first step, both cysts were skeletonized (Fig. 3) and enucleated without injury to the mesenteric vessels supplying the sigmoid colon. The serous-hemorrhagic content of the cysts was aspirated (Fig. 4) and the cysts were put into a laparobag. The leaves of the mesentery were sutured after removal of the cystic masses. In the second step, a typical laparoscopic cholecystectomy was carried out. The gallbladder and the emptied cysts were removed through the umbilical port with the

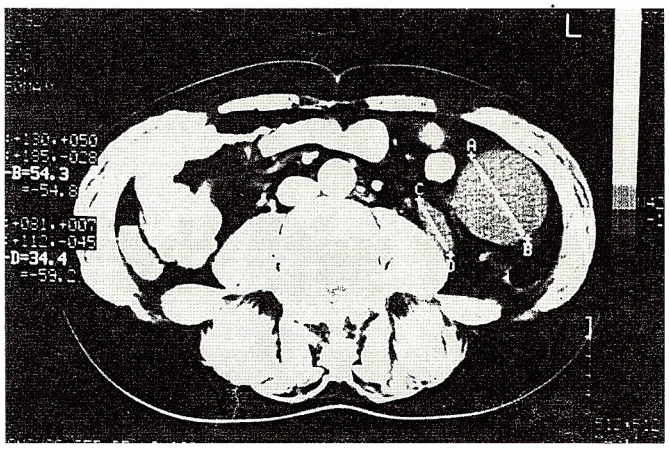

Figure 1. CT scan showing double fluid-filled masses without discernible wall located in the retroperitoneal region and involving the mesentery of the sigmoid colon.

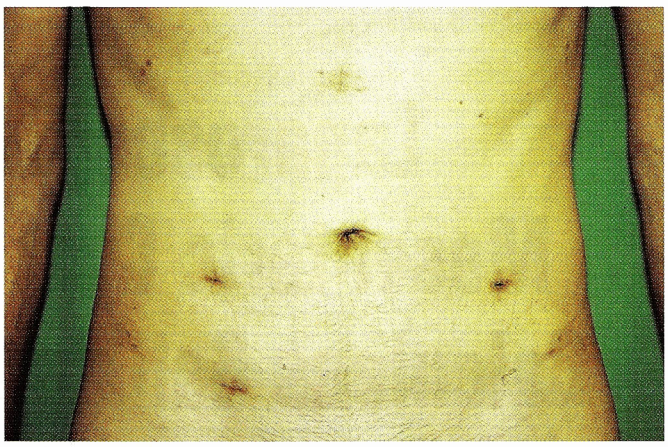

Figure 2. Trocar placement in the reported case.

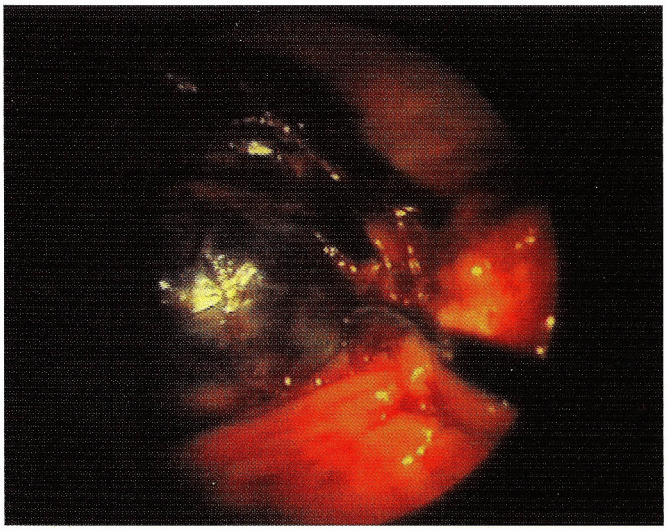

Figure 3. Laparoscopic view of the mesenteric cyst during the enucleation.

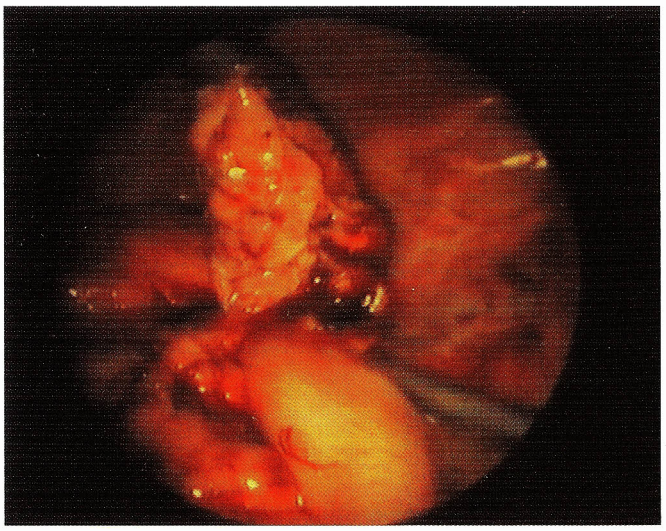

Figure 4. Laparoscopic picture of the emptied cyst.

laparobag. The operative time was 250 minutes. Histology revealed simple mesothelial cysts. The patient was discharged on day 6 postoperatively and had an uneventful recovery. A CT scan performed 2 months postoperatively showed that the cysts were completely removed and had not recurred.

DISCUSSION

The etiology, classification, and nature of the true mesenteric cysts are still disputed.[2,3,7,9] Most investigators believe that they arise from the continued growth of congenitally malformed or malpositioned lymphatic tissues. Other theories include failure of the leaves of the mesentery to fuse properly during embryonic development, abdominal trauma, and inflammatory obstruction of existing lymphatic vessels.[6] The symptoms induced by mesenteric cysts are extremely variable. They are related directly to their size and location and have little to do with the specific disease involved except in cases of hemorrhage[5] or rupture.[1,6] They most commonly present as slowly enlarging, painless abdominal masses that cause symptoms only when complications develop.[6,10] No evidence of recent or previous hemorrhage was found in the case presented, further supporting the contention that it was an incidental finding. The question arises whether removal of an asymptomatic mesenteric cyst has been justified, given the mortality rates of 5 to 10% without bowel resection, and 10 to 20% when resection is necessary.[2] Since such cysts can rupture or cause mechanical bowel obstruction as well as be sources of hemorrhage,[2,3,6] it seems to be wise to remove them whenever feasible. The optimal treatment consists of complete enucleation of the cyst without disturbing surrounding structures which are not pathological.[6] This can usually be accomplished without difficulty, since the blood supply to the adjacent bowel is independent from that of the cyst wall and the cyst is not adherent to the bowel. This was the case in our patient. When either the bowel wall or the surrounding vasculature is adherent to the cyst (which makes enucleation difficult or even impossible), segmental bowel resection with wedge resection of the portion of mesentery containing the cyst is an acceptable alternative.[6]

Progress in laparoscopic surgery[11] generally resulted in the clinical advantages of a more rapid recovery for the patient and fewer complications as well as the socioeconomic advantages of earlier return to active life and work. These advantages may be observed in the rare cases of mesenteric cysts.

CONCLUSION

Laparoscopic removal of the mesenteric cyst is thus feasible together with removal of calculous gallbladder.[5] STI

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