

Laparoscopic Enucleation of Mesenteric Cyst:

A Case Report

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Abstract

Intra-abdominal lesions, such as mesenteric cysts, are uncommon disorders. Most are discovered incidentally during routine abdominal examinations. They generally do not show typical clinical findings. Laparoscopic surgery has been used to remove a wide variety of mesenteric cysts. We report a patient with a mesenteric cyst, who was treated by laparoscopic enucleation.

Key Words: Mesenteric cyst, laparoscopic enucleation.

Introduction

MESENTERIC CYSTS are rarely seen intra-abdominal lesions. The average incidence of these lesions is approximately 1:100,000 in adults, 1:20,000 in children (1, 2). They can be uni- or multilocular, and are mostly benign. Approximately 830 cases have been reported in the literature and only four of them were found to be malignant (1–5).

Although mesenteric cysts are usually diagnosed during routine abdominal examinations, they can present with various signs, such as acute abdominal pain, chronic abdominal pain, nausea and vomiting, or change in bowel habit. Although rare, shock due to rupture or bleeding of the cyst, intestinal obstruction secondary to external compression and volvulus or torsion of the cyst have been reported (1–3).

Case Report

A 74-year-old woman was admitted to our department with non-localized abdominal pain and constipation during the previous year. Physical examination did not show any abnormality other than a median incision scar on the lower abdomen from

a hysterectomy which she had had for myoma 15 years ago. All laboratory tests, including malignancy parameters, were within normal limits.

Abdominal ultrasonography showed a cyst 5 cm in diameter at the mesentery of the ileum on the right lower quadrant. The nature of the cyst was homogeneous with low internal echo. Computed tomography (CT) showed the cyst to be circumscribed and unilocular with a thin capsule, located at the mesenterium of the ileum (Figure).

Three trocars were used: a 10 mm trocar was placed at the midline, 2 cm above the umbilicus, using an open technique; a 5 mm trocar was placed lateral to the left rectus abdominus muscle at the left upper quadrant; and a second 5 mm trocar was placed lateral to the left rectus abdominus muscle



Figure. Abdominal computed tomography shows a unilocular (arrow), well-circumscribed cyst with a thin capsule, located in the mesenterium of the ileum.

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in the left lower quadrant. During exploration, the cyst was seen at the distal ileum mesentery. It was attached to mesentery by its posterior wall, and the lateral and anterior walls were free of any attachment. Initially, the cyst was dissected from the mesentery by blunt and sharp dissection. After the cystectomy was completed, it was put into an endobag. The cyst contents were aspirated within the endobag and the cyst was then withdrawn with the endobag through the 10 mm trocar site. Histopathological examination revealed a 1 mm thick fibrous wall with cuboidal lining cells, which was diagnosed as a simple mesothelial cyst according to de Perrot classification (Table).

The patient was discharged on the first postoperative day. She is doing well, with no complaints for 16 months.

Discussion

Mesenteric cysts are uncommon intra-abdominal disorders that do not show typical clinical findings. Almost half of the cases are noticed incidentally in routine abdominal examination, when the patients present with the various abdominal complaints. Mesenteric cysts are most frequently located in mesentery of the small bowel; however, they can also be found in mesentery from the jejunum to the rectum. Ultrasonography and CT are valuable diagnostic tools in this process. CT is useful for delineating the

location, extent and nature of these lesions (1–3).

The first report of a mesenteric cyst case was in an autopsy by an Italian anatomist, Benevanni, in 1507. The first description of a chylous mesenteric cyst was recorded by Rokitsky in 1842. The first successful surgical resection was performed by Tillaux in 1880 and the first successful laparoscopic resection was reported by Mackenzie (1, 2).

The etiology of lymphangiomas and benign cystic mesotheliomas has not been defined clearly. However, simple lymphatic and mesothelial cysts are mostly congenital. They can also be related to previous pelvic surgery, trauma, pelvic inflammatory disease, endometriosis and neoplasia (1, 2). Our patient had a hysterectomy 15 years previously, which may be a reason for her cyst.

Mesenteric cysts should be treated when they become symptomatic or when they cause complications. Surgery can prevent complications, such as rupture, bleeding, intestinal obstruction, volvulus, torsion and infection. Treatment options for mesenteric cyst are simple drainage, external or internal excision, enucleation, and external or internal marsupialization (1–3, 6). The mainstay of treatment is surgical removal of the cyst. Acceptable therapy of the mesenteric cyst is complete resection to avoid malignant transformation (1, 3, 5). Excision of the cyst with segmental resection of involved bowel may be required in some patients (1, 2).

Currently, with the developments in laparoscopic surgery, complete laparoscopic cyst enucleation can be performed without any complications in appropriately selected patients.

TABLE
de Perrot Classification of Mesenteric Cysts

Origin	Type
1. Cysts of lymphatic origin	a. Simple lymphatic cyst b. Lymphangioma
2. Cysts of mesothelial origin	a. Simple mesothelial cyst b. Benign cystic mesothelioma c. Malignant cystic mesothelioma
3. Cysts of enteric origin	a. Enteric duplication cyst b. Enteric cyst
4. Cysts of urogenital origin	
5. Mature cystic teratoma	Dermoid cyst
6. Nonpancreatic pseudocysts	a. Traumatic origin b. Infectious origin

Adapted with permission from de Perrot M, Bründler MA, Tötsch M, et al. Mesenteric cysts. Toward less confusion? *Dig Surg* 2000; 17(4):323–328 (1).

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