



Mesenteric Cyst of Transverse Mesocolon: A Rare Case Report and Review of Literature

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Abstract

Mesenteric cysts are rare and can occur at any age. They are frequently asymptomatic, but sometimes patients may present with an abdominal pain or lump. Mesenteric cysts generally arise within the mesentery of the small bowel in the ileum but rarely in the mesentery of the colon. The exact etiology of mesenteric cysts is unknown. Computed tomography (CT) scanning and ultrasonography (US) are important diagnostic modalities. Surgical removal is the treatment of choice for these lesions. Bowel resection becomes necessary in the event of the gut and the cyst having common blood supply. Once removed, mesenteric cysts rarely recur, and patients have a good prognosis.

Key words: Mesenteric cyst, abdominal pain, transverse colon

Introduction

A mesenteric cyst poses a diagnostic as well as therapeutic challenge due to a low incidence, nonspecific clinical picture and a lack of proper classification [1]. Mesenteric cysts are unusual intraabdominal tumors with an incidence of 1:100.000 in adults and 1:20.000 in children [2]. Etiology of mesenteric cysts is not clear. Simple mesenteric cysts need to be distinguished

from lymphangiomas, pancreatic pseudocysts, non-pancreatic pseudocysts, loculated ascites, peritoneal inclusion cysts (cystic mesothelioma), cystic mesenteric panniculitis, hydatid cysts, cystic teratomas and urogenital cysts of the mesentery. They are usually benign and asymptomatic, but may present with non-specific symptoms. Complete surgical excision is the treatment of choice. Complete removal is possible ei-

ther with laparotomy or with laparoscopy surgery. We report here the case of a woman who presented with left lower abdominal pain. An Ultrasonography (US) and Computed tomography (CT) scan showed a large abdominal cyst. Diagnostic laparoscopy revealed a cyst arising from transverse mesocolon. Laparotomy was performed, and the excised lesion was subsequently identified as a cyst arising from transverse mesocolon.

Case Report

A 38-year-old housewife was admitted with recurrent vague abdominal pain for the last 9 months. Clinical examination and her blood tests were within normal limits. An ultrasound and CT scan (Figure 1) revealed an 11.2x 5.9x 9.4 cm thin-walled, simple, unilocular cyst in left hypochondrium. At laparoscopy, a simple cyst was seen arising from the mesentery of the transverse mesocolon. During exploration, the lesser sac was opened and the cyst was found attached to transverse

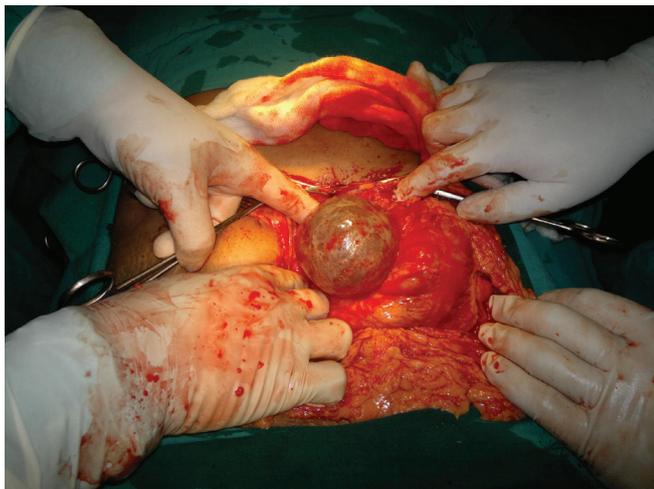


Figure 1. Operative field showing cyst in transverse mesocolon with transverse colon.



Figure 2. CT scan showing cyst.

mesocolon (Figure 2). The patient's postoperative period was uneventful and she was discharged free of symptoms after 5 days. Histopathological examination revealed a nonpancreatic pseudocyst.

Discussion

Mesenteric cysts are unusual intraabdominal tumors with an incidence of 1:100,000 in adults and 1:20,000 in children [2]. This condition was noticed in 1507 by Italian anatomist Benevanni while doing an autopsy on an 8-year-old boy [3]. Tillaux operated the first case in 1880 and about 820 cases have been reported in literature [4,5]. Mesenteric cysts are mostly common in the fourth decade of life, but young children can also be affected. The cysts affect all age groups and are common in both sexes. The mesenteric cyst and omental cyst have identical etiologies and histologic features, but the former occurs approximately 4.5 times more frequently than the latter cysts.

These cysts can be found in the mesentery of the duodenum to the sigmoid colon and are usually found in the mesentery of the small intestine (66%) and large intestine (33%) usually in the right colon. Very few cysts have been reported in the mesentery of the descending colon or sigmoid [4]. In our case, the cyst was lying in the transverse mesocolon, which is a very rare site for cysts and only two cases have been reported in literature so far [6].

Although the exact etiology of mesenteric cysts is unknown, several aetiological mechanisms have been suggested for the development of mesenteric cysts. Reported mechanisms are continued growth of congenital lymphatic tissue, failure of the leaves of the mesentery to fuse and degeneration of the lymphatics due to abdominal trauma [2,7].

Other suggested aetiological theories are: 1) that cysts are benign proliferation of ectopic lymphatics that fail to communicate with the remaining lymphatic system; 2) cysts are due to a failure of the embryonic lymph channels to join the venous system; 3) trauma, neoplasia, and lymph node degeneration have too been blamed.

Mesenteric cysts can be of lymphatic, mesothelial, enteric, enteric duplication, urogenital origin, or nonpancreatic pseudocysts (as in our case), depending upon the histopathological nature of the inner wall

of the cyst [8]. Lymphangiomas are more common among children, and the remaining classes are more frequently observed in adults. Mostly, these are benign cysts; only in 3% of the cases has malignancy been reported [9]. The size of mesenteric cysts varies from a few centimeters to 10 cms [10]. Cysts bigger than 10 cms are defined as giant mesenteric cysts, as in our case.

Mesenteric cysts commonly occur as single lesions, but multiple lesions have been reported. They can be unilocular or multilocular and may contain serous, chylous, hemorrhagic, or infective fluid. Cyst contents are mostly related to their etiological origin; a cyst due to occult trauma may contain hemorrhagic content. Chylous fluid is frequently found in jejunal cysts, as these are closely concerned in the lymphatic pathway. Serous fluid is usually present in cysts of the ileum and colonic mesentery.

Usually these cysts present with a nonspecific clinical picture. Clinical presentation consists of common features of an abdominal pain, lump or distension. In one study, the most common presentation was abdominal pain (63%), followed by abdominal mass (44%) [11]. Rarely these can be complicated with rupture or intestinal obstruction. A mesenteric cyst can present as small bowel volvulus in children with acute abdominal symptoms [12].

Correct preoperative diagnosis is very difficult due to the rarity of the entity and the lack of specific symptoms and signs. It can be achieved when one is vigilant and familiar with this condition and keeps this entity in mind as a differential diagnosis of intraperitoneal cysts. Clinical imaging modalities (ultrasound, Computed tomography or Magnetic Resonance Imaging (MRI)) may help in arriving at the exact diagnosis [10].

The treatment of choice is surgical excision of the cyst. This can be done either by laparotomy or laparoscopy [3,13,14]. Some patients may require bowel resection to attain complete removal of the cyst if it is closely adherent with bowel structures or there are common blood vessels between the bowel and the cyst. The bowel resection is mainly done in lymphangiomas. Bowel resection is required only in 33% of adult patients, whereas the incidence is up to 50%-60% in children [4]. A surgical approach depends on the size and location of a cyst in the abdominal cavity. Following

surgery, patient prognosis is excellent and recurrence is low (0% to 13.6%) [6].

Conclusion

Mesenteric cysts, however, are quite rare tumors of the mesentery, but one must always keep suspicion in mind regarding the existence of this entity and should be considered in a differential diagnosis of abdominal cystic lesions. Laparoscopic excision of a mesenteric cyst is possible and should be considered as the treatment of choice.

Conflict of interest statement

The authors do not declare any conflict of interest or financial support in this study.

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