

## Intestinal Obstruction Due to a Mesenteric Cyst

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Mesenteric cysts are rarely thought of, may be difficult to diagnose, and are usually asymptomatic except when complicated. Intestinal obstruction is a rarely reported complication of these cysts. A case of mesenteric cyst that was causing obstruction of the large bowel is presented, along with a review of the literature.

**Key Words:** Mesenteric cyst, intestinal obstruction.

### INTRODUCTION

Mesenteric cysts (MCs) are rare cystic malformations that appear to result from the sequestration of embryonic lymphatic tissue within the mesentery.<sup>1</sup> Most cases are asymptomatic except when complicated.<sup>2</sup> Intestinal obstruction is a rarely reported complication of these cysts.<sup>3-8</sup> The differential diagnosis should include MC when the patient presents with a history of multiple episodes of partial bowel obstruction or with an asymptomatic abdominal mass and may be difficult to diagnose.<sup>9</sup> A case of MC associated with large bowel obstruction is presented with a review of the literature.

### CASE REPORT

A 75-year-old male presented with colicky abdominal pain, nausea, vomiting, mild abdominal distension and constipation for 3 days. The pain was intermittent and located on the epigastrium.

Vomiting was fecaloid in nature. Physical examination revealed a distended abdomen with diffuse tenderness but no rebound tenderness and no detected mass. Bowel sounds were markedly decreased. An upright abdominal x-ray examination showed multiple air-fluid levels. A clinical diagnosis of acute intestinal obstruction was made. Laboratory investigations were within normal limits. There was no finding on US or CT. The patient was managed conservatively for 12 hours. An increase in the severity of the symptoms and clinical findings warranted an emergency operation.

Surgical exploration of the abdomen revealed the presence of a thin walled cyst which contained gelatinous material between the transverse colon and the posterior wall of pylorus (Fig. 1). No definite pathology was found in the small or large bowel. The cyst was excised totally and the abdomen was closed.

Histopathological examination confirmed the cyst to be mesenteric. The cyst wall was fibrotic,



**Fig. 1.** The mesenteric cyst which contains gelatinous material between the transverse colon and the posterior wall of pylorus.

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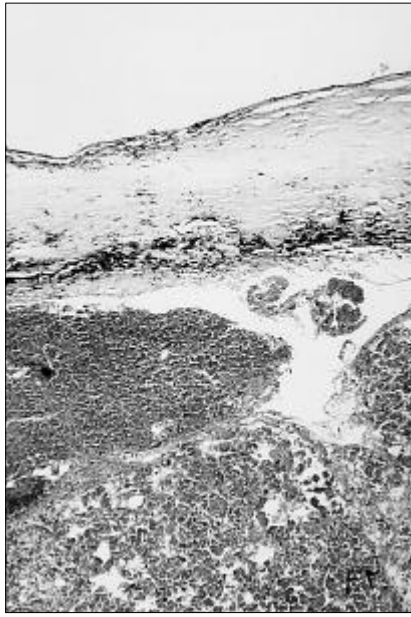


Fig. 2. The cyst wall (H&E stain, 40X).

with hypocellular formation and hemosiderin accumulation (Fig. 2). The gelatinous material was determined microscopically as hematoma.

The patient was discharged on the 5th postoperative day without any complication.

## DISCUSSION

MCs are rare cystic malformations that appear to result from the sequestration of embryonic lymphatic tissue within the mesentery, and may be difficult to diagnose.<sup>1,8,9</sup> They may be divided into four groups based on their etiology: (a) embryonic and developmental cysts, (b) traumatic or acquired cysts, (c) neoplastic cysts, or (d) infective and degenerative cysts.<sup>9,10</sup> Anatomico-clinical study of the cases forms the basis for some conclusions on the pathogenetic problem of MC whether the disease is congenital or acquired due to expressions of lymphatic flow decompensation.<sup>11</sup> MC is most often caused by congenital lymphatic spaces that gradually enlarge as they fill with lymph.<sup>10</sup> MC is typically thin walled and doesn't have any mucosa or muscular wall.<sup>1,12</sup> The cyst lining is typically composed of endothelial cells but is often incomplete. MC may be filled with either chyle or serous fluid and MC may be either

multilocular or unilocular.<sup>1</sup> MC can cause intestinal obstruction or may present as an abdominal mass.<sup>12</sup> Hemorrhage, volvulus, cyst rupture, and infection are all possible alternative presentations.<sup>1</sup> MCs usually present as abdominal masses accompanied by pain, nausea, and vomiting. These masses can be diagnosed on physical examination.<sup>1,10,12</sup> US and CT are valuable as diagnostic tools, although the specific diagnosis may not be possible.<sup>1,9,12</sup> The differential diagnosis includes such critical lesions as aortic aneurysm, pancreatitis, ovarian cysts, omental cysts, and lipomas of the mesentery.<sup>9</sup> Surgical removal is accomplished by resection of the adjacent intestine, partial excision or marsupialization being reserved for cysts involving a large portion of the mesentery.<sup>1,10,12</sup> However, generally MC can be excised without bowel resection. Occasionally, partial excision of the cysts with marsupialization may be appropriate, but total excision is preferable.<sup>1</sup> In conclusion, MC as a causative factor of intestinal obstruction, although rare, should be considered in adults with chronic or acute obstruction.

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