

Giant Mesocolon Cyst in a Child: A Rare Presentation

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Abstract

Mesenteric cyst is a rare cause of intra-abdominal mass in children. The most common site is the mesentery of the ileum. The other rare sites are descending colon, sigmoid colon, and the retroperitoneum. We are presenting a case of 12 years old male who presented to us as epigastric mass and was finally diagnosed to have huge sigmoid mesenteric cyst. We want to emphasize here that the sigmoid mesenteric cyst which in itself is a rare entity can also present as an epigastric mass making the diagnosis even more difficult.

Introduction

The mesenteric cysts are very rare intra- abdominal tumors with an incidence of 1:105000-1:250000 hospitalized adult surgical patients [1]. Its incidence in children is 1:20,000 [2]. The cyst can occur in any part of mesentery from duodenum to rectum. The most frequent site is the mesentery of the ileum (60%) and the mesocolon (ascending colon 40%). It develops over a long period and diagnosed incidentally. Since the development is insidious, it rarely causes abdominal symptoms. The most common acute presentation in children is small bowel obstruction. Other causes of acute presentation are rupture, hemorrhage into cyst, infection or abscess formation. The most common physical findings are palpable partially mobile abdominal mass. Mesenteric cysts have similar pathogenesis, but may have different histopathological origin and structure. There are various suggested classification of mesenteric cyst but clinically accepted classification is based on histopathology (lymphatic, mesothelial, enteric, urogenital, cystic teratoma, non-pancreatic pseudo cyst) [1].

Case Report

A 12 years old male child presented to our outpatient department, with complaint of painless epigastric swelling which has increased gradually to present size over a period of 1year. There was no history of pain abdomen, altered bowel habits, vomiting. On her abdomen examination there was fullness in epigastric region. A soft, partially mobile mass with cystic consistency was palpable in epigastric region which was partially involving right n left hypochondrium. The ultrasonography of abdomen showed huge, well defined cystic mass involving whole of the abdomen. Contrast Enhanced Computed Tomography (CECT) of abdomen showed large cystic mass measuring 130x80x90 mm and involving whole of the abdomen but without any pressure changes in the adjacent viscera (Figures 1and 2). It was in close relation to the bowel. On exploratory laparotomy, a large multiloculated cyst, arising from mesentery of sigmoid colon was enucleated (Figure 3). The



Figure 1: Abdominal CT scan. A cystic mass in close relation with the intestine.



Figure 2: Intraoperative findings cyst deriving from the mesentery of the sigmoid colon.



Figure 3: The completely excised cyst.

cyst contained a yellowish clear fluid and was enucleated completely leaving bowel intact. The Histopathological Examination (HPE) of the cyst revealed it to be a benign lymphangioma. The post-operative period was uneventful and patient was discharged on post-operative day.

Discussion

The mesenteric cyst are mostly benign in nature but malignant transformation has been reported [2,3]. Very few cases have been reported in mesentery of descending colon or sigmoid colon [4,5]. First case of mesenteric cyst was reported in 1507 by Bebevienal and first successful surgical excision was done in 1880 [6]. There are several hypotheses in vogue for the possible etiology of the mesenteric cyst. The most commonly accepted theory is that the cysts arise from the disruption of lymphatic vessels with extravasation of lymph and the development of surrounding granulation tissue that leads to the formation of the cyst [7]: it has also been suggested that cysts are embryologically true diverticulum of the small intestine that grow

within the mesentery and then become closed leading to formation of cysts; or cysts are developmental abnormalities that arise secondary to trauma or degeneration of lymph nodes [4,5].

There are two types of classifications. The etiological classification was given by Beahrs et al and it includes embryonic cysts or development, traumatic or acquired cysts, neoplastic and infectious cysts or degenerative. The histopathological classification was given by Ros et al which include lymphangioma, non-pancreatic pseudocysts, enteric cyst and mesothelial cysts. The most common type are chylous or lymph cysts [6,7,8].

The mesenteric cysts are more commonly seen in mesentery of the small intestine (67%). But they can be seen anywhere from duodenum to the rectum. The cysts seen in mesocolon are reported in 33% of cases [5,6].

The symptoms are related to the size, location and presence of complications. The most common symptom is pain abdomen and abdominal mass [3]. It may present acutely due to torsion, intestinal obstruction, hemorrhage, infection, traumatic rupture.

Various diagnostic modalities can be used for the diagnosis of these cysts but USG and CT scan is favored these days. Senocak et al reported that abdominal ultrasonography is good investigation in experienced hands. CT scan can be done in doubtful cases. We diagnosed our patient with both USG and CT scan. Our differential diagnoses were omental cyst, mesenteric cyst and tumour.

The treatment of choice is complete surgical excision. This can be done by open or laparoscopic method. Following complete surgical excision it carries good prognosis with no preoperative mortality or morbidity and low recurrence rate [8]. But neglected mesocolon cysts can lead to complications like, infection, hemorrhage into cyst, and rupture of cyst leading to peritonitis which has a poorer prognosis.

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