



MESENTERIC CYST PRESENTING AS INTESTINAL OBSTRUCTION: A RARE ENTITY IN PAEDIATRIC AGE

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ABSTRACT Mesenteric cyst is a rare intra-abdominal pathology in paediatric age group. Patients usually remains asymptomatic or can have nonspecific complains of abdominal pain and progressive abdominal distension. Acute presentations are extremely uncommon and their preoperative diagnosis is difficult. Here, we present a 6 year old boy presenting as an acute intestinal obstruction and was later diagnosed to be mesenteric cyst. Explorative laprotomy was done and mesenteric cyst along with incidental Meckel's diverticulum and twisted bowel loop was resected and ileoileal anastomosis done. Patient recovered uneventfully. Mesenteric cyst presenting as acute obstruction in paediatric age is rare and challenging preoperative diagnosis prompted us to report this case.

KEYWORDS :

Introduction:

Mesenteric cyst is a rare intra-abdominal benign lesion, formed as a result of sequestration of embryonic lymphatic tissue within mesentery (1). It can arise from anywhere in the course of mesentery, from duodenum to rectum. Most commonly involved site is small bowel, mainly terminal ileum(2,3).

Reported incidence of mesenteric cyst is 1/35,000 paediatric hospital admissions (3). Clinical spectrum ranges from asymptomatic abdominal distension to features of acute abdomen. Clinical features include recurrent abdominal pain, asymptomatic abdominal distension, abdominal mass, nausea, vomiting, and constipation (4). However, most of the cases of mesenteric cysts remain asymptomatic. Preoperative clinical diagnosis is really difficult as condition being a rare entity and does not have any pathognomic clinical feature (5). Here, we report here a case of mesenteric cysts that presented as acute intestinal obstruction and had asymptomatic Meckel diverticulum revealed during intra-operative period.

Case summary:

A 6-year-old boy presented with history of abdominal pain, vomiting for five days and abdominal distension, not passing stool for four days prior to admission. Pain abdomen was continuous, diffuse and used to aggravate on lying down. Vomiting was nonprojectile, nonbilious and used to occur particularly after meals. He also had progressive abdominal distension and inability to pass flatus and faeces. There was no history of fever, jaundice, melaena, haematemesis, bleeding per rectum, or worm infestation. There was no history of TB contact in family. On clinical examination, vital parameters were within normal limit with no pallor, icterus, pedal oedema or any significant lymphadenopathy. Per abdomen examination revealed, diffuse abdominal distension, no guarding or rigidity, tympanic note all over abdomen, no free fluid with sluggish bowel sounds. Rectum was empty on digital rectal examination. Laboratory tests found haemoglobin of 10.7 g%, hematocrit of 32.3%, total leukocyte count of 6000/cumm, and platelet count of 580000/cumm. His blood differential showed 70% neutrophils, 26% lymphocytes, 2% eosinophils and 2% basophils. His liver function tests, kidney function, coagulation profile, serum amylase and lipase levels were within normal limits. Chest radiograph findings were normal. Ultrasound abdomen showed evidence of multiple septate collections in peritoneal cavity with dense internal echoes, sluggish peristalsis noted in bowel loops likely subacute intestinal obstruction with infective peritoneal collection. Patient underwent exploratory laparotomy, which revealed a mesenteric cyst measuring 15x10 cm along with Meckel's diverticulum and twisted ileal loops (Figs. 1e3). Ileal loop involved

was resected along with mesenteric cyst and ileo-ileal anastomosis was done.

Post-operative period was uneventful and he was discharged after 14 days of hospital stay. Patient remained asymptomatic on regular follow-up during next 2 months.

Discussion:

Mesenteric cyst was first described way back in 1507 during the autopsy of an 8year old girl(3,6). Mesenteric cyst results from benign proliferation of ectopic lymphatic tissue in the mesentery that lacks communication with the remainder of the lymphatic system.

Mesenteric cyst can vary in size, number and location. It can occur anywhere in the mesentery from duodenum to rectum, but they are most commonly located in the mesentery of the ileum (50% to 60%)(2) followed by sigmoid mesocolon. Size of mesenteric cysts may vary from 2 cm to 35 cm(7). In our case, it was located in ileum region along with Meckel diverticulum and twisted ileal loops around it and measured 15x10cm.

Symptoms in these cases are variable; remain asymptomatic till complications occur. Clinical features are related to the size and the position of the cyst, without any pathognomic signs in uncomplicated patients. Patients may also present with acute symptoms secondary to complications such as obstruction, rupture, and haemorrhage into cyst or obstruction. Intestinal obstruction is a frequent complication and is usually produced by compression of the adjacent intestine as noted in our case(8).

Abdominal ultrasonography and computed tomography are investigation of choice for the diagnosis of cystic abdominal mass(8). Plain abdominal radiograph may show a gasless, homogenous mass defect displacing the bowel loops to one side. Patients presenting with obstruction shows multiple air-fluid levels on an erect abdominal radiograph; both the findings were evident in roentgenograms in our case. Abdominal USG in our case showed evidence of multiple septate collection noted in peritoneal cavity with dense internal echoes, sluggish peristalsis, which was later on confirmed with CECT as cystic collection with bowel loops with multiple adhesions surrounding it.

Complete surgical excision of cyst is the treatment of choice. Bowel resection and anastomosis may be required along with excision of the cysts (2) as performed in our case. Evacuation of cyst and marsupialisation are not recommended because of high recurrence and infection rate(9,10).



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