



A RARE CASE REPORT ON AN INCIDENTAL MASSIVE RETROPERITONEAL ASCENDING COLON MESENTERIC CYST

Dr. Taraka Krishna Nulukurthi

Associate Professor, Department Of General Surgery, KIMS &RF.

Dr. Ch. Anjni Suvarchala Devi*

General Surgery, PG, 3rd year, KIMS & RF. *Corresponding Author

Dr. V. S. R. K. N. Sree Dutta

General Surgery, PG, 3rd year.

ABSTRACT

Background: The discovery of cystic lesions within the retroperitoneal region is a rare occurrence that presents clinicians with the problem of a difficult diagnosis and management of the condition. The present paper details the management of a case wherein a substantial cystic lesion was incidentally identified following an episode of dengue fever during a routine abdominal scan. **Case Presentation:** A 24-year-old male presented to the surgical outpatient department (OPD) with the incidental discovery of an intra-abdominal cystic mass during an ultrasound scan conducted as part of his evaluation for dengue infection. He underwent surgery and was discharged after a successful recovery. **Conclusion:** Mesenteric cysts are uncommon benign abdominal lesions with a 3% risk of malignant development. Most cysts are asymptomatic and are discovered by chance or during the treatment of their problems. The mesentery of the small bowel is the most common origin, followed by the mesocolon. A case report of a 24-year-old male with a huge abdominal mesenteric retroperitoneal cyst arising from caecum and ascending colon is presented.

KEYWORDS : retroperitoneal cyst, mesenteric cyst, enterogenous cyst, caecum and ascending colon cyst

INTRODUCTION:

Mesenteric cysts are benign lesions seen in the abdomen. They occur in 1 in 100,000 patients⁽¹⁾. Mesenteric cysts are most usually found in the small bowel mesentery, but they can also be found in the mesocolon (24%) and retroperitoneum (14.5%)⁽¹⁾. The cyst can grow to be quite large before becoming symptomatic. A CT scan may assist in confirming the diagnosis, but surgery is still the best treatment choice.

CASE PRESENTATION:

A 24-year-old male patient with dengue infection was referred to the surgical OPD after an abdominal lesion was discovered by chance during an abdominal ultrasonography. He had no previous history of fever, abdominal pain, distension, vomiting, diarrhoea, melena, or mucoid stools. His bowel and bladder habits were normal. Vitals were stable, and other systemic examinations were normal. On local examination, fullness is noted in the right iliac fossa, extending up to the right lumbar region. A non-tender, vague lump of 15*12 cm in size is palpated in the right iliac fossa, extending up to the right lumbar region. There are no other lumps palpated elsewhere in the body. There were no abnormalities in the per-rectal examination.

INVESTIGATIONS:

Laboratory investigations showed haemoglobin of 13.6 g/dL and Serum glucose, liver function tests, blood urea, and serum creatinine were normal.

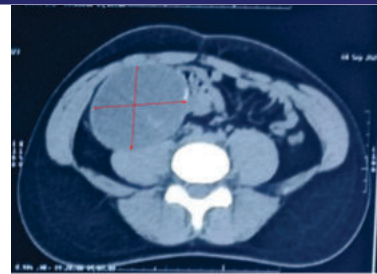


Figure 2 showing axial section of same cystic lesion

USG showed evidence of a large heterogeneously hypoechoic walled-off collection measuring about 18.1 x 8.1 x 7.0 cm in the right iliac region with internal echoes and few wall calcifications. There is no obvious internal vascularity on the colour doppler. Contrast-enhanced computed tomography revealed a 17.6 * 8.8 * 8.8 cm elongated, thick-walled, hypodense cystic lesion extending into the retroperitoneum and displacing the ascending colon medially, as evident in Figure 1 and 2

Colonoscopy showed an extrinsic compression in the ascending colon without lumen constriction.

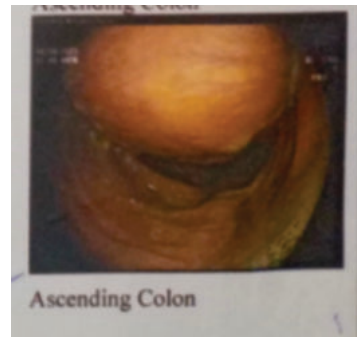


Figure 3 shows the cystic lesion compressing ascending colon

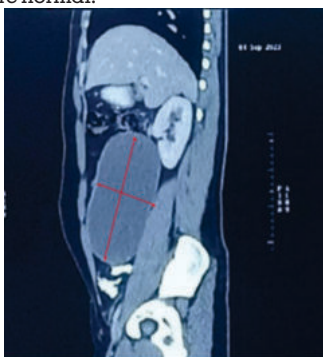


Figure 1 showing mesenteric cyst

Figure 3 shows the cystic lesion compressing the ascending colon.

The patient was scheduled for elective mesenteric cyst excision, with the possibility of conversion to resection and anastomosis. He was placed in the supine position, and under general anaesthesia, a midline laparotomy incision was made and the peritoneum opened. An 18 * 9 cm enterogenous cyst emerging from the caecum and ascending colon and extending up to the hepatic flexure was seen. Medialization of ascending colon done by cattle brasch manoeuvre, hepatic flexure mobilised, kocherization done for duodenum.



Figure 4 Intra operative image of mesenteric cyst

Mesocolon rent was created, separated from caecum and ascending colon, mesentery separated at terminal ileum, transection done at terminal ileum 7 cm proximal to ileo colic junction, ascending colon transection done at 8 cm proximal to hepatic flexure using linear stapler, and right hemicolectomy done. Intestinal continuity was restored with ileo-ascending colon anastomosis, done in a side-to-side manner in two layers.



Figure 5 resected enterogenous cyst specimen

Figure 5 shows the resected enterogenous cyst

The patient's postoperative recovery was uneventful. He was discharged in stable condition. Histopathology revealed a benign mucinous mesenteric cyst lined by tall columnar mucin-secreting cells.

DISCUSSION:

Mesenteric cyst is an uncommon cystic condition that arises in the abdominal cavity, with an incidence of 1/100,000 to 250,000 in adult hospitalised patients [2]. Benevieni, a Florentine anatomist, described mesentery cysts for the first time in 1507 [3]. Tillaux conducted the first successful resection of a mesentery cystic tumour in 1880 [3]. The cyst is usually found in the mesentery of the small intestine, especially the mesentery of the ileum. Mesenteric cysts are more common in women and appear in their fifth decade. Mesenteric cysts are caused by a variety of factors. They are typically caused by lymph node failure to communicate with the lymphatic or venous systems or by blockage of draining lymphatics as a result of trauma,

tumour, or infection [4] [5].

Classification Of Mesenteric Cysts:

Mesenteric cysts were classified into four groups by Beachrs et al. [6] in 1950: traumatic cysts, neoplastic cysts, infective and degenerative cysts, and embryonic and developmental cysts. Eventually, based on the radiological results of the cysts, Ros et al. [5]

established a histological classification into five groups: lymphangiomas, enteric duplication cysts, enteric cysts, mesothelial cysts, and non-pancreatic pseudocysts.

The proposed updated classification of mesenteric cysts and cystic tumours [11] is as follows:

1. Cyst of lymphatic origin
 - A. Simple lymphatic cyst
 - B. Lymphangiomas
2. Cysts of mesothelial origin
 - A. Simple mesothelial cysts
 - B. Benign cystic mesotheliomas
 - C. Malignant cystic mesotheliomas
3. Cysts of enteric origin
 - A. Enteric duplication cysts
 - B. Enteric cysts
4. Cysts of urogenital origin
5. Non-pancreatic pseudocysts
 - A. Cysts of traumatic origin
 - B. Cysts of infectious origin
6. Non-neoplastic cysts
 - A. Hydatid
 - B. Tuberculous cyst
7. Mucinous cystic neoplasms
 - Mucinous cystadenoma
 - A. Borderline malignant mucinous cystic neoplasm
 - B. Mucinous cyst adenocarcinoma

8. Miscellaneous neoplasms Since the majority of mesenteric cysts are asymptomatic, their detection is usually accidental through USG or CT scans; it is improbable that they will be detected by physical examination or blood testing [2].

Occasionally, they may present with symptoms like pressure or fullness in the abdomen, or they may appear as a result of other issues, including rupture, torsion, cyst haemorrhage, intestinal herniation into an abdominal defect, or obstruction. Though it occurs seldom, malignant transformation has been reported in as few as 3% of instances [1]. A complete physical examination and relevant radiological examinations are necessary for a precise diagnosis of a mesenteric cyst [5] [8] [9].

If radiological assessment is insufficient to determine the location and features of the lesion, the surgeon may also choose to use diagnostic laparoscopy [11].

For benign and malignant cysts, surgical excision is the mainstay of treatment. The extent of the lesion and its penetration into the surrounding organs determine the surgical approach [2]. Most mesenteric cysts can be adequately enucleated, but occasionally, bowel resection may be required if the cyst is near intestinal structures or involves the arteries that supply the gut [5]. Patients with mesenteric cysts had a great prognosis and an extremely low recurrence rate of 0–13.6% [10].

Laparoscopic resection offers a good success rate and a low incidence of postoperative sequelae [11].

Although mesenteric cysts are rare and difficult to diagnose prior to surgery due to the absence of symptoms, they must be considered in the differential diagnosis of a cystic lesion within the abdomen cavity in the majority of instances ^[2]. Although the majority are benign, surgical resection should be considered because these cysts have the potential to become malignant ^[2].

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