

## **Mesenteric Cyst- A Rare Case**

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### **I. Introduction:**

Mesenteric cysts are the rare cysts may occur in the mesentery of either small intestine (60%) or the colon (40%). They most commonly occur in adult with a mean age of 45 years, twice common in males. The most common presentation is painless abdominal lump with characteristic signs: there is a fluctuant swelling near the umbilicus which moves freely in a plane at right angles to the attachment of the mesentery (Tillaux's sign) and resonant note around the cyst. Other presentations are with recurrent abdominal pain with or without vomiting. They can be classified as Chylolympathic, Enterogenous, Urogenital remnant and Dermoid. Out of these Chylolympathic is the most common. We report a case of mesenteric cyst in a child.

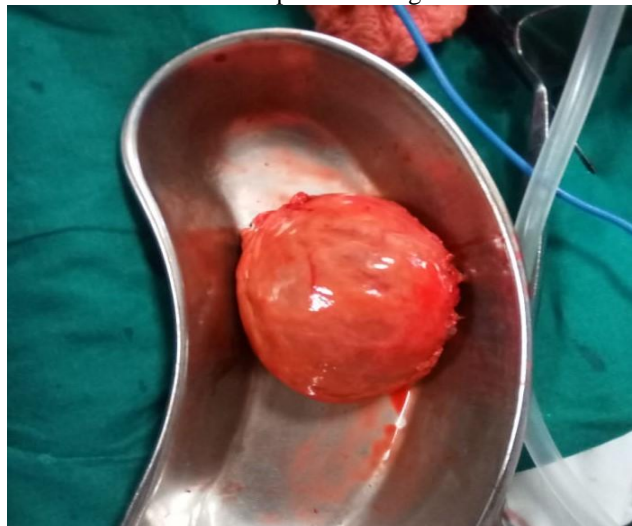
### **II. Case Report**

A 12 year old male patient came with complaints of periumbilical pain since 4-5 days with multiple episode of vomiting since 2 days. The pain in the periumbilical region was sudden in onset, gradually progressing nonradiating with multiple episodes of vomiting nonprojectile containing the food particles with on and off fever with chills with no any complaints of bowel and bladder disturbances. On examination there was of palpable lump of size 3 x 3 cm, which firm to hard in consistency with mild tenderness having resonant note on percussion with no any other abnormal findings on examination. On investigating the patient, first ultrasonography was done which was suggestive of a thin walled cystic lesion of approximate size 4.5 x 7.7 x 7.8 cm noted within the abdominal cavity at the level of umbilicus more on the left side, possibly arising from the mesentery with internal echoes and few foci of internal calcification with post acoustic shadowing with possibility of mesenteric cyst likely. Further CECT ABDOMEN was planned and done which was suggestive of a well defined peripherally enhancing smooth marginated unilocular cystic lesion of approximate size (4.5 x 7 x 8) cm noted in the peritoneal cavity in the hypogastric region in the left paramedian location which anteriorly reaches upto anterior abdominal wall with preserved fat plane, laterally on the right side lies in close relation with the sigmoid colon with preserved fat plane and on left side lies in close relation with distal part of the descending colon with preserved fat plane and posteriorly lies in close relation with left psoas muscle, left lower ureter, left common iliac vessels and left external iliac artery with preserved fat plane. Inferiorly it lies in close relation to sigmoid and lies 4 cm away from the dome of urinary bladder with small intestine loops in between with preserved fat plane. This is suggestive of a neoplastic cystic lesion involving abdominal cavity in the hypogastric region in the left paramedian location suggestive of benign etiology, mesenteric cyst. There were also changes of acute pyelonephritis involving right kidney with pyelitis and upper uretheritis with changes of appendicitis with mild ascitis. The after preoperative assessment patient was posted for exploratory laprotomy on 15/2/2020. After exploration a lump was found in the intraabdomen centrally placed of size surrounded by large bowel loops. Lump was dissected and separated which was not arising from any of the large bowel loops and gently removed and abdomen was closed followed by skin closure. The specimen was sent for histopathological examination for further study. Postoperative stay of the patient was normal and stable. Patient was discharged and was asked for followup for suture removal. On Histopathological examination gross structure revealed a structure of size 8 x 7 cm grayish brown in color, firm in consistency and on cut section brown fluid came out and on microscopic examination on H and E stained section shows flattened epithelial lined by fibrocollagenous tissue with area of vascular congestion, adipose tissue and inflammatory cells are observed with findings suggestive of Enterogenous mesenteric cyst.

Intra operative image



Post operative image



### III. Discussion

Mesenteric cysts are one of the rare cysts observed in the abdomen. Occurs approximately in 1/3<sup>rd</sup> of cases occur in children younger than 15 years. No difference in sexes in term of frequency. Tillaux performed the first successful surgery for cystic mass in the mesentery in 1850. It can occur anywhere in the mesentery of the GI tract from duodenum to rectum. It may or may not extend into the retroperitoneum. Most frequent localization in the small bowel mesentery (70%) and within small bowel it is commonly localized in the ileal mesentery (50-60%). Its aetiology is not certain but it may be associated with failure of the lymph nodes to communicate with the lymphatic or the venous system / blockage of the lymphatics as a result of trauma, infection and neoplasm are said to be contributing factor. The most accepted theory, proposed by **GROSS**, is benign proliferation of ectopic lymphatics in the mesentery that lack communication with the remainder of the lymphatic system.

The most common classification is histopathological classification, which divides these cyst into 6 groups:

1. Cyst of lymphatic system.
2. Cyst of mesothelial origin.
3. Enteric cyst.
4. Cyst of urogenital origin.
5. Dermoid cyst.
6. Pseudocyst.

**Cyst of lymphatic origin (Chylolymphatic cyst)**

most common variety and almost invariably solitary and most often unilocular and probably arising in the congenitally misplaced lymphatic tissue. Thin walled, composed of connective tissue lined by flat endothelium, filled with clear lymph or rarely chyle and consistency vary from watered milk to creamy.

**Cyst of mesothelial origin**

It includes simple mesothelial cyst, benign cystic mesothelioma and malignant cystic mesothelioma and it is usually small in size and multiple in number. They are thin walled, filled with clear or yellowish fluid or gelatinous material.

**Enteric cyst**

It is believed to be derived either from diverticulum of the mesenteric border of the intestine during embryonic life or from duplication of the intestine. It is thick walled, lined by ciliated mucous membrane which usually contains mucinous content and is either colourless or yellowish brown as a result of past haemorrhage.

**Cyst of urogenital origin**

Cysts may be unilocular or multilocular believed to be derived from remanant of wolffian duct which often attains large dimension and develops in the retroperic space.

**Clinical features:**

- May be asymptomatic
- Abdominal discomfort
- Acute / chronic pain
- Distension of abdomen
- Compression of adjacent structures i.e anorexia, nausea, vomiting, fatigue and weight loss.
- **Tillaux sign:** mass lesion mobile only from patient's right to left or left to right.

**Treatment**

- When symptomatic, simple mesenteric cysts are surgically excised either openly or laproscopically.
- Cyst unroofing or marsupialization is not recommended because they have high propensity to recur.
- Rarely adjacent mesentery or bowel may get adhered to the cyst or mesenteric vessels must be sacrificed in order to achieve complete excision.

**References:**

- [1]. Mesentric cyst review literature – dr priyadarshan konar

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