

A Rare Surgical Entity - Chylolymphatic Mesenteric Cyst- presenting as Acute Intestinal Obstruction

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Abstract: Mesenteric cysts, particularly chylolymphatic cysts, represent a rare intra-peritoneal finding with potential complications in pediatric patients. These cysts, arising from lymphatic vessel proliferation, often present with non-specific symptoms such as abdominal pain, nausea, vomiting, and may lead to intestinal obstruction or volvulus. This case study focuses on a 12-year-old male presenting with abdominal pain and vomiting. Imaging studies including ultrasound and computed tomography CT scan were suggestive of small bowel obstruction due to a mesenteric cyst. Surgical exploration revealed a twisted mesentery and a sizable cyst requiring resection. Mesenteric cysts are classified based on etiology and pathological characteristics, and their definitive diagnosis relies on histopathological examination. Complete excision is the recommended treatment, with possible bowel resection if the cyst involves adjacent structures. This case underscores the importance of recognizing and managing these rare entities to achieve favorable outcomes.

Keywords: Mesenteric cyst, Chylolymphatic cyst, Pediatric, Small bowel obstruction, Histopathological examination

1. Introduction

Mesenteric cysts are benign intra peritoneal finding and almost half of them involve the mesentery of the terminal ileum. Chylolymphatic cysts are benign proliferation of the lymphatic vessels which results from obstruction in the lymphatic system. They account for approximately 3% to 9% of all pediatric lymphangiomas

The presenting symptoms include abdominal pain, nausea, vomiting, anorexia and often can complicate into intestinal obstruction, volvulus and torsion. These clinical presentation may not be characteristic and the preoperative imaging although suggestive is not diagnostic. In most cases, the diagnosis is done after surgical exploration and confirmed after histopathological examination.

2. Case Profile

12yr male

History of abdominal pain since 3 days-generalized in nature, mild to moderate in intensity, non localized & non radiating in nature.

History of vomiting since 2 days-non projectile, non bilious, containing food particles.

On examination-Per abdomen was distended and rigid

Per rectal-No any abnormality

Rest of systemic examination was normal

No any previous history of trauma/operative intervention

Investigation

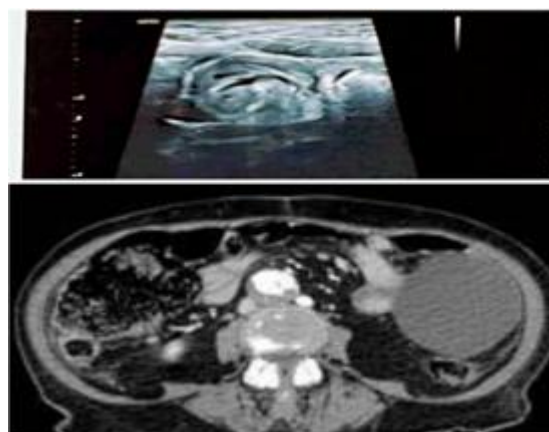
CBC, serum electrolytes, RFT- within normal limits

Chest radiograph-Unremarkable

Abdominal radiograph-multiple air fluid level were seen

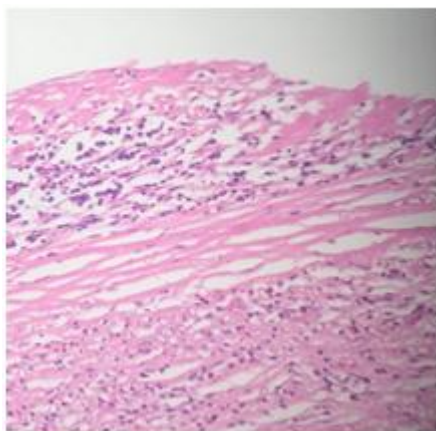
Ultrasound abdomen & pelvis-Multiple dilated content loaded bowel loops noted all over abdomen with max. diameter 3.4cm with to & fro peristalsis, suggestive of small bowel obstruction

Computed Tomography (CT) scan of abdomen-Lobulated hypodense collection in pelvic region with twisting of the mesentery seen suggestive of midgut volvulus with changes of small bowel obstruction.



Intra-op findings

There was approximately 15*10*7 cm mesenteric cyst found approx 100cm proximal to ileocaecal junction. Mesentery around cyst was found twisted. Rest of the bowel loop and solid organs were found normal. Resection of cyst containing part of ileum of approx 10 cm segment was done and sent for histopathological examination.



Histopathological examination is confirmatory and differentiates chylolymphatic cysts from all the other lesions.

The different surgical approaches used are marsupialization, sclerotherapy, drainage, enucleation, and excision of the cyst with or without resection of the involved gut. Laproscopic approach is safe and feasible.

4. Conclusion

Cysts of the mesentery are among rare surgical entities.

The diagnosis is confirmed after surgical exploration and removal of the cyst

Ultrasonography and computed tomography suggest the diagnosis but histopathological examination is required for confirmation

Complete excision of the cyst yields excellent results. Bowel resection may be needed if involved by the cyst and may rarely need an ileostomy.

References

- [1] Memanbets, Rous Ticana Martinez Castaño Reyes Fics, V Vitam -Gran Valio of al Mesenteric cysts in children As Pediatr Sec 2014
- [2] A Prak A Agua Gupta, Sanghunskur Larly management of mesenteric cyst prevents cotastrophes a single centre anseo of 17case And Sing 2017 Sch 201

3. Discussion

Mesenteric cysts are rare intra-abdominal findings with prevalence of about 1:100,000 in adults and 1:20,000 in paediatric age group. Chylolymphatic cysts are rare variants of mesenteric cysts and constitute 7.1% to 9.7% of all abdominal cysts.

These cysts arise in the sequestered lymphatic channels or ectopic lymphatic tissue in the small bowel mesentery and enlarge by accumulating lymph and chyle. The accumulation is due to result from an imbalance between the inflow and outflow of fluid across channels.

It can occur in the mesentery of the gastrointestinal tract from duodenum to rectum but most commonly are localized in the mesentery of the small & large intestine and retroperitoneum. These cysts can be single or multiple, unilocular or multilocular, can have serous, chylous, hemorrhagic or mixed fluid

Mesenteric cysts have been classified based on etiology into: embryonic or developmental, traumatic or acquired, neoplastic or non-neoplastic and infective or degenerative. Pathological classification includes type 1 (Pedunculated) and type 2 (Sessile), which are limited to the mesentery, hence can be excised completely with or without resection of the involved gut. Type 3 and type 4 are multicentric