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Case Report

Giant Chylolymphatic Mesenteric Cyst in a Young Adult - A Rare Case Report

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Abstract

Mesenteric cysts are rare abdominal masses in adult presenting usually as vague abdominal pain, discomfort, distension and mid abdominal mass. Here we present a giant lymphatic cyst in a 17 year adult male with nonspecific symptoms like vague abdominal discomfort and post prandial discomfort with non-distended abdomen and fluid thrill. Imaging revealed giant cyst occupying the entire abdomen. On surgical exploration, found a huge cyst occupying the whole abdomen, attached to whole of mesentery encroaching into the retro peritoneum. Complete excision of the cyst with jejunal resection and anastomosis was done. Histopathology revealed it to be benign lymphatic cyst.

Keywords: *Giant Lymphatic Cyst; Mesenteric Cyst; Abdominal Pain*

Abbreviation

CT: Computed Tomography

Introduction

Mesenteric cysts are benign tumor with incidence of less than 1 in 100,000 hospital admissions [1]. These may be due to disruption of the mesenteric lymphatics either by traumatic disruption or mechanical obstruction or congenital lymphatic malformations [2]. The patient's clinical presentations is dependent on cyst size, location and related complications such as partial or complete bowel obstruction, perforation, peritonitis, volvulus and malignant degeneration [1]. Clinical examination - palpable abdominal lump and tillaux sign and radiological investigations - abdominal CT and ultrasonography are used to diagnose mesenteric cysts [1]. Surgical excision with or without resection anastomosis is the main stay of treatment because marsupialization and deroofing have high incidence of recurrence and does not provide definitive histopathological proof [1].

Case Report

17 year old unmarried male presented to the surgery outpatient department with upper abdominal pain of 4 months duration which got aggravated in the last 5 days. The pain radiated to back and increased after food intake. He was unable to take food despite good appetite as he had post prandial discomfort. Patient's physical examination was unremarkable except for mild epigastric tenderness. All

laboratory parameters were within normal limits. Ultrasound abdomen showed giant cystic lesion occupying the whole of the abdomen cavity. So, he was subjected to abdominal CT which revealed a very large intra peritoneal mesenteric cystic lesion - non organ derived, measuring 25*17.5*21.5 cm extending from epigastrium to pelvis. Wall shows no enhancement. The lesion abuts the bowel loops and solid organs. The mesenteric vessels were seen traversing the cystic lesion suggesting a possibility of mesenteric cystic lymphangioma.

He underwent surgical exploration after getting consent for possibility of massive intestinal resection. Exploratory laparotomy revealed a giant mesenteric cyst of size about 30* 20 cm was found attached to whole of small bowel mesentery encroaching the retro peritoneum. The cyst was found occupying the entire abdomen pushing the entire small bowel to the supracolic compartment and was abutting the stomach and colon. Patient underwent excision of the cyst with resection of approximately 30 cms of jejunum and mesentery with end to end jejuno jejunal anastomosis very close to duodeno jejunal flexure. So, a posterior gastro jejunostomy with a feeding jejunostomy was done. Post-operative period was uneventful. Patient was started on jejunal feeds from day 2 and to oral feeds on day 7. Feeding jejunostomy tube was removed after 6 weeks.

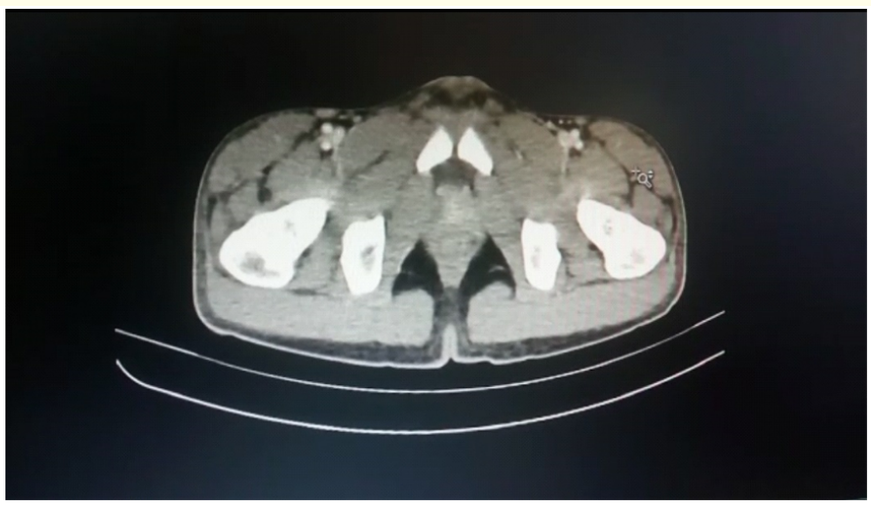

Figure 1: *Mass is not encroaching the pelvis.*

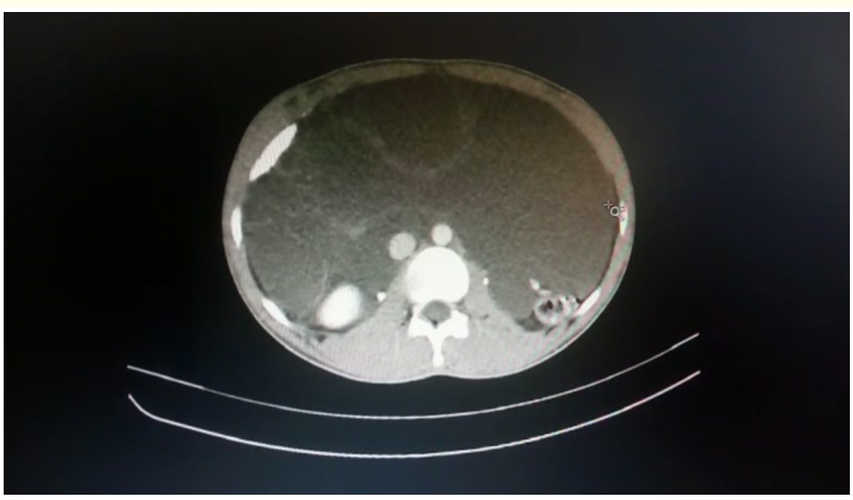

Figure 2: *Ill-defined hypo dense lesion occupying the entire abdominal cavity.*

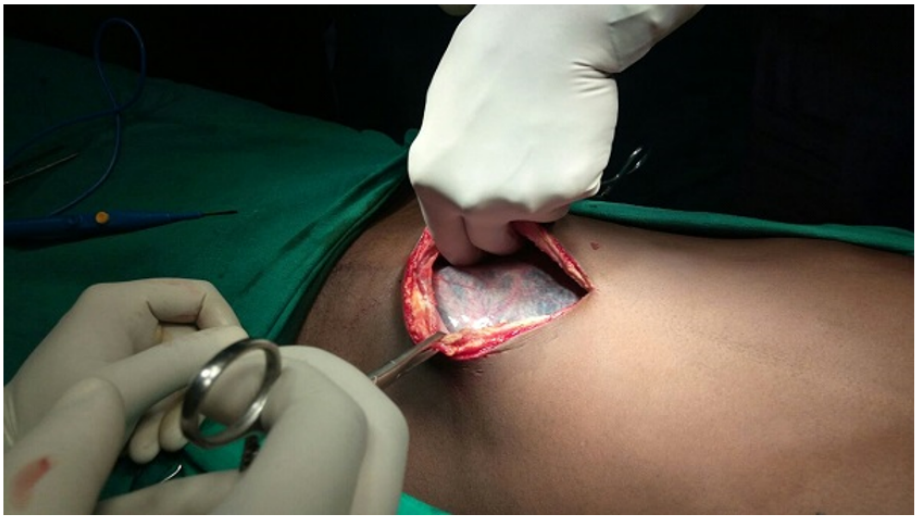

Figure 3: *Cystic mass visible on opening the abdomen.*

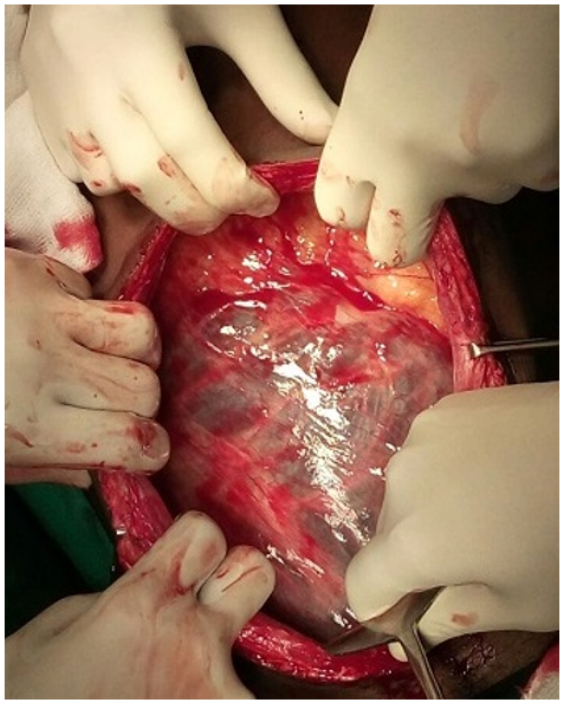

Figure 4: *Mass seen occupying the entire abdomen on laparotomy.*

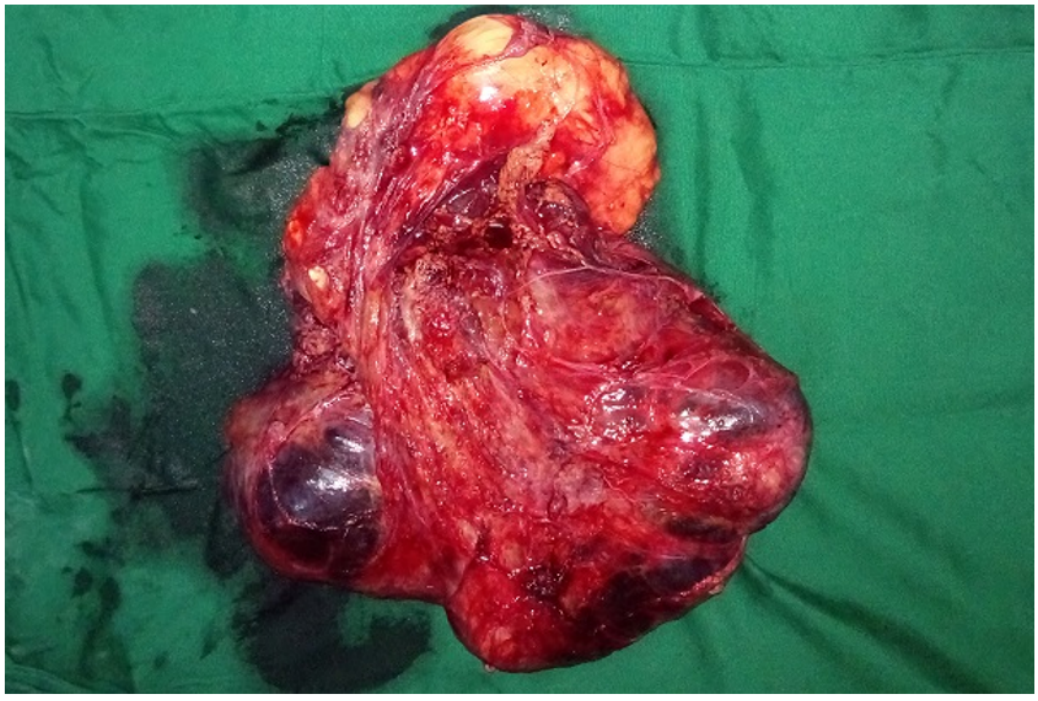

Figure 5: *Excised specimen.*

The final histopathological examination revealed encapsulated varying sized dilated lymphatic vessels with lymphoid tissue and secretion, congested vessels with some fibro fatty tissue which was consistent with lymphatic cyst of mesentery.

Discussion

Mesenteric cyst also called as mesothelial cysts are usually located in the mesentery of small bowel (60%) or large bowel (40%) with or without retroperitoneal extension [2]. The most accepted etiology is that these cysts are caused by benign proliferation of ectopic lymphatics which lacks communication with the lymphatic system [3]. Pathologically these cysts can be of lymphatic, mesothelial, enteric or urogenital origin [4].

The patient usually presents with nonspecific chronic abdominal pain and distension, anorexia, nausea, vomiting or changes in bowel habits which is usually due to compression of intra-abdominal structures and acute abdominal pain may be due to rupture of the cyst or torsion of the bowel [5-7]. In this case, the patient had vague upper abdominal pain with decrease food intake due to post prandial fullness.

Diagnosis of mesenteric cyst is usually made with high index of clinical suspicion and imaging modalities among which ultrasound and CT are most preferred as it helps determining the size, point of origin, the relation to the neighboring organs and demonstrates wall calcification much better [3,8,9].

Surgery, by open or laparoscopic approach, is the standard treatment of choice [10]. Cysts of lymphatic origin has independent blood supply so enucleation of the cyst can be done where as in enterogenous cyst and cysts of urogenital remnant the treatment of choice is excision of the cyst with resection of the adjacent bowel [11-13]. In this case the cyst was occupying the whole length of mesentery and was encroaching reroperitoneum and major retroperitoneal structures like aorta and ivc which needed surgical expertise and experience in order to prevent iatrogenic injury. Even small damage in the root of mesentery could compromise the blood supply to the bowel which could lead to major bowel resection and short bowel syndrome [6,11,13].

Conclusion

Mesenteric cysts are rare; continue to arouse the curiosity of the radiologist, surgeon and pathologist, due to the difficulties encountered in diagnosing and treatment. Open surgery is the easiest approach although laparoscopic surgery is being commonly practiced as it decreases the post op morbidity. However, one should exercise utmost caution to avoid cyst wall rupture, which causes recurrence if part is left behind, or dissemination of malignancy, if the cyst turns out to be malignant.

Conflict of Interest

No financial interest or any conflict of interest exists.

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