Chylolymphatic Mesenteric Cyst as a Surgical Emergency

Alana Ravasio, MD[1], Jimmie Knight 3rd, MD[1], Scott W Schimpke, MD[1]
[1]Department of Surgery, Rush University Medical Center, Chicago, IL, USA.

Introduction

- Mesenteric cysts are rare tumors of the GI tract, and are even less prevalent in adults than in children
- Pathologic classifications include serous, chylous, hemorrhagic, and chylolymphatic
- Chylolymphatic mesenteric cysts are a rare variant, lined with a thin endothelium or mesothelium, and filled with chylous or lymphatic fluid[1]
- Recommended surgical management is complete excision of the cyst, to reduce the risk of recurrence[2]

Patient Presentation

- 28 year old female presenting with three days of subjective fever, right-sided abdominal pain, nausea, vomiting, PO intolerance, and obstipation in the setting of one month of constipation and a palpable abdominal mass
- Hemodynamically normal, examination significant for tenderness to palpation of a mid-right abdominal mass
- Laboratory data: WBC 10.47
- Imaging: CT Abdomen/Pelvis with IV contrast, showing a heterogeneous, complex cystic structure with internal fat densities. There was communication with the central mesentery, with fat stranding, shifting of the third part of the duodenum and jejunum to the right, and thickened wall of the proximal jejunum, implicating concern for mesenteric cyst torsion

Images

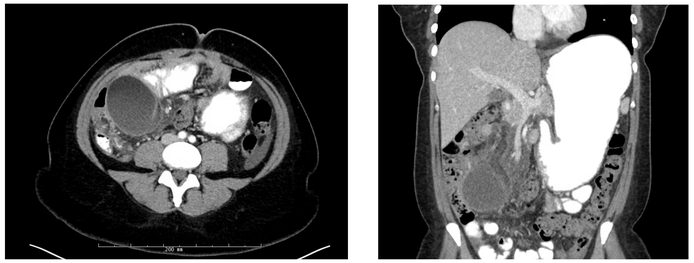


Figure 1 & 2. CTAP with IV contrast showing the cystic structure and thickened jejunal wall



Figure 3. Resected segment of jejunum, mesentery, and mesenteric cyst

Clinical Course

- Taken for urgent exploratory laparotomy due to concern for obstruction and small bowel ischemia
- Large cyst found to be emanating from a congested but viable loop of jejunum and its mesentery, 20 cm distal to the ligament of Treitz
- Involved segment of bowel and cyst resected en bloc, anastomosis created to leave the bowel in continuity
- Pathology: 8.6 cm chylolymphatic cyst of the small intestinal wall, with inflammation and necrotic tissue in the adipose tissue of the adjacent mesentery

Discussion

- This is a case of an adult patient presenting with a chylolymphatic mesenteric cyst requiring urgent surgical excision, a rare tumor and presentation
- In a review of 70 cases of symptomatic mesenteric cysts >10 cm, 10% of patients presented with acute onset of abdominal pain due to mechanical compression and bowel obstruction, requiring urgent intervention[3]
- This case highlights that when a young patient with a virgin abdomen presents with a bowel obstruction and/or mesenteric ischemia secondary to a suspected mesenteric cyst, a surgeon's threshold should be low to consider urgent surgical removal

Contact

Jimmie Knight 3rd, MD
Rush University Medical Center
1620 W Harrison St Chicago, IL 60612
Jimmie_T_Knight@rush.edu

References

1. Yadav KK, Acharya K, Yadav C, Yadav RK, Koirala DP, Dahal GR. Chylolymphatic mesenteric cyst: A rare differential diagnosis of cystic mass in abdomen: A case report. Int J Surg Case Rep. 2024 Apr;117:109480.
2. Tan, J.J.-Y., Tan, K.-K. and Chew, S.-P. (2009), Mesenteric Cysts: An Institution Experience Over 14 Years and Review of Literature. World J Surg, 33: 1961-1965 1687.
3. Gagliardi, F., Lauro, A., Tripodi, D. et al. Mesenteric Cyst with GI Symptoms: A Fluid Approach to Treatment—Case Report and Literature Review. Dig Dis Sci 67, 786–798 (2022).

© POSTER TEMPLATE BY GENIGRAPHICS® 1.800.790.4001 WWW.GENIGRAPHICS.COM