

Giant abdominal chylolymphatic cyst: Review of Two Rare Cases

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ABSTRACT

Mesenteric cysts are rare benign intra peritoneal tumor and more than half of the mesenteric cysts involve the mesentery of the terminal ileum but cyst in mesentery of jejunum and also in retroperitoneum is very rare. A mesenteric cyst is a fluid-filled sac lined with endothelium or mesothelium arising anywhere in the mesentery of the duodenum through the large bowel .We present two cases of Giant chylolymphatic mesenteric cyst one in jejunal mesentery which was very large and other one in retroperitoneum .In both cases cyst was excised without any complication or recurrence. We would like to emphasize the importance of successful enucleation of the cyst irrespective of its size due to its independent blood supply as opposed to enterogenous cyst which requires bowel resection and anastomosis.We report these cases because of its rare site and size.

Keywords: Chylolymphatic, Mesentericcyst, Lymphangioma

Introduction

First reported in 1907 by the Florentine anatomist Benevieni in an 8-year-old girl[1] A mesenteric cyst is a fluid-filled sac lined with endothelium or mesothelium arising anywhere in the mesentery of the duodenum through the large bowel. They may be filled with serous, chylous, sanguinous or chylolymphatic fluid and may be composed of a single sac, septated or multiloculated[2]. The incidence of mesenteric cysts has been reported to be in the region of 1/100 000–1/200 000 and between 10% and 30% of these may be in children although can present at any age [3, 4].Giant mesenteric cysts are even rarer and those containing chylolymphatic fluid are the rarest [2].Clinically mesenteric cysts may present as an asymptomatic abdominal mass, incidental finding during laparotomy for other abdominal conditions, or it may present as an acute abdomen. Mesenteric cysts may cause acute abdomen from the cyst rupture, infection, hemorrhage, intestinal obstruction, and volvulus [5]. USG and computed tomography scan of the abdomen are the investigations of choice [2]. Mesenteric cysts may vary in size from 4 cm to 30 cm [5]. Complete surgical excision remains the mainstay for the treatment of the mesenteric cysts with an excellent result [2].

Case Reports

Case 1: A 2- year- old female presented with swelling in abdomen from 2 month duration. Physical examination revealed a huge intrabdominal mass filling the whole of the upper abdomen below umbilicus.Her biochemical investigations were in the normal range. Ultrasound

abdomen revealed a large cystic space occupying lesion of size 13X9cms with multiple septa .CT scan revealed large predominantly cystic mass of size 12.7X10.1X7.5 cms in abdomen and pelvis with few thickened enhancing septae in upper portion[Figure-1]. Surgical exploration was done which revealed multiple huge cysts 6 cm distal to duodenojejunal flexure abutting the jejunalmesentery[Figure 2]. Cysts were removed by resection of jejunal segment followed by anastomosis.The diagnosis was confirmed on histopathology which revealed thin cyst wall lined with flat endothelium having clear lymphoid aggregates. Patient was discharged under satisfactory condition.

Case 2: A 4 year female presented with swelling in lower abdomen with off and on pain in abdomen. There was no history of fever vomiting or feature of intestinal obstruction. On examination cystic swelling confined left lower abdomen which was fixed. On CT scan abdomen showed 10x9x9 cm cyst in left lower retroperitoneum indenting to bladder wall [figure-3]. Surgical exploration was done and cyst was removed as whole from retroperitoneum [figure-4]. Surgical outcome was good.

Discussion

Mesenteric cysts are most commonly solitary and multiloculated, but may occur at multiple positions within the peritoneal cavity. One third of the mesenteric cysts occur in the children younger than 15 years of age and it is reported slightly more often in males [6]. The exact etiology for the development of the mesenteric cysts is not known. The most commonly accepted theory was proposed by Gross, and it is the result of benign

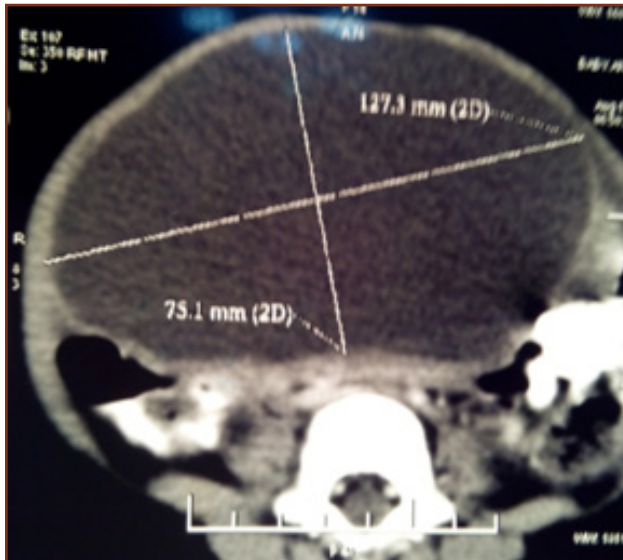


Fig. 1: CT Scan showed large cystic mass of size 12.7X10.1X7.5 cms in abdomen with septa.

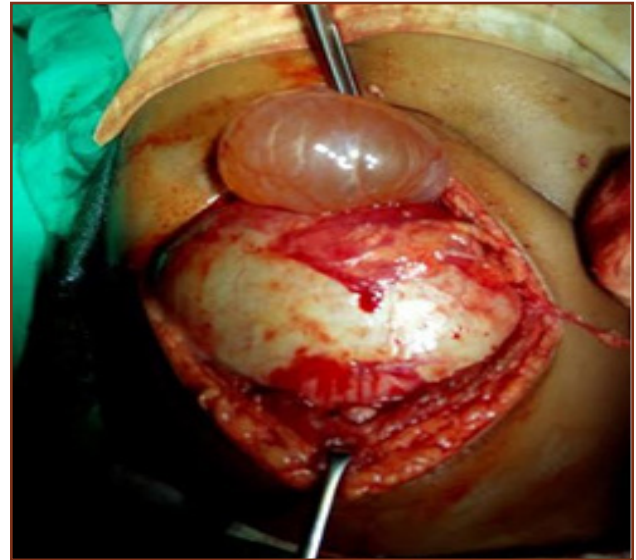


Fig. 2: Intraoperative picture showed multiple other cyst along with larger cyst .

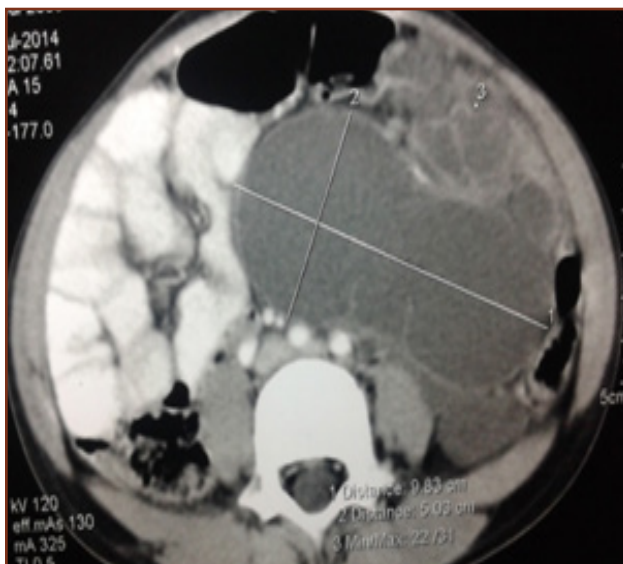


Fig. 3: CT Scan showed large cystic mass of size 10x9.5x9 cms in retroperitoneum.

proliferation of ectopic lymphatics in the mesentery that lack communication with remainder of the lymphatic system [6] These cysts arise in the sequestered lymphatic channels or ectopic lymphatic tissue in the small bowel mesentery and enlarge by accumulating both lymph and chyle. The accumulation of lymph and chyle is thought to result from an imbalance between the inflow and outflow of fluid across these channels.[7]. Other cystic lesions in the abdomen that resemble mesenteric cysts are cystic lymphangioma (hygroma), cystic teratoma, ovarian cyst, intestinal duplication cyst, hydatid cyst, etc



Fig. 4: Intraoperative picture showed larger retroperitoneal cyst

[2,6]. Histopathological examination is confirmatory and differentiates chylolymphatic cysts from all these lesions [2,6] Complete surgical excision remains the mainstay for the treatment of the mesenteric cysts with an excellent result[6].In approximately 20% to 60% of the cases bowel resection and anastomosis is needed along with the excision of the mesenteric cysts [8]. Excision of the mesenteric cysts may also be accomplished successfully with laparoscopically [8]

This present case the cyst was localized in the mesentery of the jejunum, and it also involved the adjacent ileum. He

was presented with distention of abdomen. The diagnosis of the cyst was suspected on the USG of the abdomen and was confirmed by CT scan. En bloc complete surgical excision of the cyst involving the mesentery of jejunum along with the involved adjacent bowel was done

Conclusion

Children with chylolymphatic cyst (mesenteric cyst) involving the mesentery of jejunum may present with features of acute intestinal obstruction. Surgical excision of the mesenteric cyst remains a mainstay of treatment with an excellent result.

References

1. Mohanty SK, Bal RK, Maudar KK. Mesenteric cyst—an unusual presentation. *J Pediatr Surg* 1998;33:792–3.
2. Rattan K, Vimoj JN, Manish P, et al. Pediatric chylolymphatic mesenteric cyst—a separate entity from cystic lymphangioma: a case series. *J Med Case Rep* 2009;3:111.
3. Kurtz RJ, Heimann TM, Holt J, et al. Mesenteric and retroperitoneal cysts. *Ann Surg* 1986;203:109.
4. Bliss DP, Jr, Coffin CM, Bower RJ, et al. Mesenteric cysts in children. *Surgery* 1994;115:571–7
5. JJ Tan, KK Tan, SP Chew. Mesenteric cysts: an institution experience over 14 years and review of literature. *World J Surg.* 2009;33:1961–65
6. [1] RR Ricketts. Mesenteric and omental cysts. In: Grosfeld Jay L, O'Neill JA, Fonkalsrud EW, Coran AG, Caldamone AA (eds), *Pediatric Surgery*. Chapter 89. Mosby Inc. 2006; Vol II:1399–1406.
7. Engel S., Clagett O.T., Harrison Eg., Jr. Chylous cysts of the abdomen. *Surgery*. 1961;50:593–599.
8. NSTran, TLNguyen. Laparoscopic management of abdominal lymphatic cyst in children. *J Laparoendosc Adv Surg Tech A.* 2012;22:505–07

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