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# Giant Lymphatic Multi Loculated Omental Cyst: A Case Report And Review Of Literature

*Dr. Yavalkar PA **Dr Shinde J ***Dr Kshirsagar

*Associate Prof.,Department of Surgery,Smt. Kasibai Navale Medical College & General Hospital,Maharashtra, India.

**Assistant Prof.,Department of Surgery,Smt. Kasibai Navale Medical College & General Hospital,Maharashtra, India.

***Assistant Prof.,Department of Surgery,Smt. Kasibai Navale Medical College & General Hospital,Maharashtra, India.

**ABSTRACT**

*Lymphatic cysts are uncommon benign lesions occurring commonly in the neck and axilla and rarely in the abdomen. They are more common in males than females and occur mainly in childhood. They are detected incidentally during imaging studies being performed for some other unrelated reasons. Large omental cysts may mimic ascites.Patients with omental cysts usually present with abdominal distention and a painless mass with vague abdominal symptoms.They may present acutely due to complications like intestinal obstruction, hemorrhage into the cyst or torsion. Most cysts present with chronic symptoms. In children the presenting symptoms are due tointestinal obstruction. Complete excision of the cyst is the treatment of choice. Ultrasonography is helpful in excluding other causes of abdominal mass. We report a case of giant lymphatic multi loculated cyst presenting with abdominal mass. The clinical features, radiological findings and outcome is described.*

**Keywords : omental cyst, lymphatic cyst, multi loculated abdominal cyst.**

**Introduction**

Lymphatic cysts are uncommon benign lesions occurring commonly in the neck and axilla (95%) whereas rarely occurring in the mesentery, omentum, retroperitoneum and mediastinum

1. They are more common in boys than girls and occur in childhood 2Gairdner published the first report of an omental cyst in 1852 3. Clinical presentation depends upon the size of the cyst. Small cysts may be asymptomatic or present with acute abdomen while a big omental cyst may mimic ascites. Konen et al have suggested that progressive enlargement, multiplication and thickening of septa with increased echogenicity of cystic fluid are signs that indicate complications and will require surgery 2.

**Case report**

A 35-year-old female presented to us with progressive distension of abdomen and dull aching abdominal pain for about 5 to 6 months. There was no history of vomiting, weight loss or loss of appetite. Her menstrual history was normal and obstetric history was G2P2L2A0. On per abdominal examination there was distention, and a mass measuring 18 x 18 cms was felt. The large mass was soft to cystic and involving whole of the abdomen. It was extending from the epigastric to the pelvis, upper and lower border were not palpable but lateral borders were felt. It was mobile, non tender and cystic with a smooth surface.Routine blood investigations were within normal limits. An abdominal Ultrasound examination was performed, and it showed a giant cystic lesion with internal septations, extending from epigastrium to pelvis. The origin of the cystic lesion could not be established. CT scan showed a large mass lesion located in the midline, with imaging characteristics favoring diagnosis of omental or peritoneal cyst probably lymphangioma. Possibility of duplication cyst was less likely.The uterus and adenexa were normal.Patient underwent a laparotomy, intra operative findings were a cystic lesion arising from the greater omentum. The cyst was displacing the stomach anteriorly and extending into the pelvis. Lateral extents were from right lobe of liver to spleen. It was filling the abdominal cavity and had displaced all intrabdominal viscera posteriorly. It was excised in toto and sent for histopathological examination.The gross appearance was of a huge thin walled cyst, filled with clear fluid and had multiple septae. Histopathological examination revealed that lesion was lined by a single layer of cuboidal cells lined with lymph. These findings were consistent with lymphatic cyst of omentum. Post operative recovery was uneventful.

**Discussion**

Omental cysts are rare and are mostly derived from lymphatic tissue. They are present in the lesser or greater omentum and are lined by endothelium. Omental cyst occurs in all age groups, but most often presents in children and young adults 4. Gairdner published the first report of an omental cyst in 1852 3. Omental cysts are thought to represent benign proliferations of ectopic lymphatics that lack communication with the normal lymphatic system.

**Etiological theories-**

(1) failure of the embryonic lymph channels to join the venous system
(2) failure of the leaves of the mesentery to fuse
(3) trauma
(4) neoplasm
(5) degeneration of lymph nodes 5.

**Classification of omental cysts-**

Embryonic/developmental.
Traumatic.
Neoplastic.
Infectious.

Marc de Perrot 6 proposed a more comprehensive classification based on the histological identity of the epithelial lining when present.Lymphatic cysts (simple lymphatic cyst and lymphangioma).Mesothelial cysts (simple mesothelial cyst, benign cystic mesothelioma, and malignant cystic mesothelioma).Enteric cysts (including enteric duplication cyst).Urogenital cysts.Mature cystic teratoma (dermoid cysts).Pseudo cysts (infectious and traumatic cysts).These cysts are lined by a distinct membrane similar to cavernous lymphangioma.

It shows abnormal localized collection of fluid that may be bloody, serous or chylous. The cyst often has a flaccid consistency and tends to occupy the dependent parts of the abdominal cavity. They may mimic ascites. In ascites there is abdominal distension, pouting of the umbilicus, scrotal swelling, and bulging flanks with fluctuation, shifting dullness, and a fluid wave on palpation. Partial bowel resection is required in some cases. Laparoscopic surgery is performed in selected cases when the preoperative diagnosis is certain. The rarity of these lesions and lack of characteristic clinical features may present diagnostic difficulties. Most cases are asymptomatic. The clinical presentation relates to size, location, and complications, such as bowel obstruction, perforation, peritonitis, volvulus, or malignant degeneration. Presenting symptoms include abdominal distension, pain, and vomiting, mimicking appendicitis or an acute abdomen 7-9. A painless, asymptomatic, compressible, and freely movable abdominal mass may be the mode of presentation. Mesenteric lymphatic cysts may cause complete or partial intestinal obstruction or torsion of the small bowel 10,11. A hemorrhagic or ruptured mesenteric cyst following trauma12-14 is an abdominal emergency.

**Differential diagnosis –**

duplication cyst
enteric cyst
pseudo cyst of pancreas
cystic teratoma
ovarian cyst.

Presence of septa, compression of bowel, lack of fluid in dependent recess is suggestive of lymphangioma.Omental cysts can be simple or multiple, unilocular or multilocular, and they may contain hemorrhagic, serous, chylous, or infected fluid. Omental cysts can be discovered as an incidental finding during laparotomy for another condition, or they can present as a chronic or acute abdomen. Chronic symptoms include progressive abdominal distension and pain. The mass may be huge, mimicking ascites15 .The most common mode of acute presentation is that of a small-bowel obstruction, which may be associated with intestinal volvulus 16 or infarction, hemorrhage into the cyst, infection, rupture, cystic torsion, and obstruction of the urinary and biliary tract. The imaging modality of choice is abdominal ultrasonography. Ultrasound demonstrates fluid-filled cystic structure, commonly with thin internal septations and sometimes with internal echoes from debris, hemorrhage, or infection. These can be confused with large ovarian cysts in females. Abdominal computed tomography (CT) scanning adds little additional information, although it can reveal that the cyst is not arising from another organ such as the kidney, pancreas, or ovary. The goal of surgical therapy is complete excision of the cyst 15 .Omental cysts can be removed without endangering the adjacent bowel. If the cyst is encountered incidentally, it should be removed as the operative mortality for excision is negligible. There is no documented evidence to show that these cysts may undergo malignant degeneration or they may recur. Prognosis is excellent with complete excision.

**Conclusion**

Clinical presentation of omental cysts will depend upon the size of the cyst. Small cysts may be asymptomatic or present with acute abdomen while a big omental cyst may mimic ascites. Complete surgical excision of the cyst is must to prevent recurrence. Omental cysts can be excised without damage to the surrounding structures.Consent Written informed consent was obtained from the patient for publication of this case report and accompanying images. There is no conflict of interest.

Figure No.1 Figure No. 2

Intra operative photos

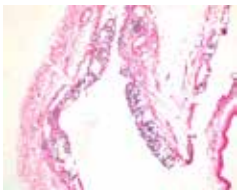
Figure No. 3

Intestines pushed by the large cyst

Figure No.4

Cyst arising from greater omentum

Histopathology



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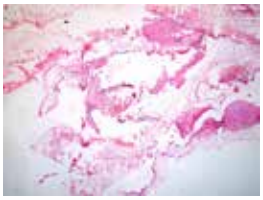

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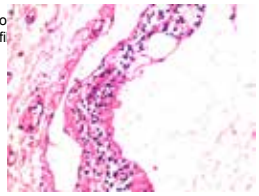

Histopatho
cells and fi

H & E 40x

## REFERENCES

1.Cutillo DP, Swayne LC, Cucco J, Dougan H (1989) CT and MR imaging in cystic abdominal lymphangiomatosis. J Comput Assist Tomogr 13: 534-536. | 2.KonenO, Rathaus V, Dlugy E, et al. Childhood abdominal cystic lymphangioma. Pediatr Radiol 2002;32:88-94. | 3 .Gairdner WT. A remarkable cyst in the omentum. Trans Path Soc Lond. 1852;3:1851. | 4.Walkar AR, Putham TC. Omental, mesenteric and retroperitoneal cyst.A clinical study of 33 new cases. Ann Surg. 1973;178:13–19. [PMC free article] [PubMed] | 5 .Egozi EI, Ricketts RR. Mesenteric and omental cysts in children. Am Surg. 1997;63(3):287–90. [PubMed] | 6. De Perrot M, Bründler MA, Totsch M , et al. Mesenteric cysts. Toward less confusion? Dig Surg. 2000;17:323–328. | 7. Egozi EI, Ricketts PR. Mesenteric and omental cysts in children.Am Surg. 1997; | 63:287-290. | | 8. Chung MA, Brandt ML, St-Vil D, Yazbeck S. Mesenteric cysts in children. J Pediatr | Surg. 1991;26:1306-1308. | | 9. Bliss DPJ, Coffin CM, Bower RJ, Stockmann PT, Temberg JL. Mesenteric cysts | in children. Surgery. 1994;115:571-577 | | 10. Wong SW, Gardner V. Sudden death in children due to mesenteric defect and | mesenteric cyst. Am J Forensic Med Pathol. 1992;13:214-216. 11. Namasivayam J, Ziervogel MA, Hollman AS. Case report: volvulus of a mesenteric | cyst: an unusual complication diagnosed by CT. Clin Radiol. 1992;46:211-212. | | 12. Ulman I, Herek O, Ozok G, Avanoglu A, Erdener A. Traumatic rupture of mesenteric | cyst: a life-threatening complication of a rare lesion.Eur J Pediatr Surg. 1995; | 5:238-239. | | 13. Porras-Ramirez G, Hernandez-Herrera MH. Hemorrhage into mesenteric cyst following | trauma as a cause of acute abdomen. J Pediatr Surg. 1991;26:847-848. | | 14. Klin B, Lotan G, Efrati Y, Vinograd I. Giant omental cyst in children presenting as | pseudoascites. Surg Laparosc Endosc. 1997;7:291-293. | | 15.lu Devrim Karaosmanog, OktarSuna O zhan, celCem Yu, zdemirHakan O. Huge omental cyst simulating ascites. European Journal of Radiology Extra. 2005;54:55–57. doi: 10.1016/j.ejrex.2005.03.001. [Cross Ref] | 16.Lam FCY, Fan TW, Chan KF, Leung YW, Chao NSY. Omental Lymphangioma with Torsion: Case Report. J HK CollRadiol. 2005;8:49–52. |