



## A RARE CAUSE OF ACUTE ABDOMEN: MESENTERIC CYST TORSION

Serdar Yormaz\*, Huseyin Yilmaz, Husnu Alptekin, Ilhan Ece, Mustafa Sahin

Department of Surgery, Faculty of Medicine, Selcuk University, 42075, Konya, Turkey.

Corresponding Author:- **Serdar Yormaz**

**E-mail:** [serdaryormaz@gmail.com](mailto:serdaryormaz@gmail.com)

<p><b>Article Info</b></p> <p><i>Received 13/11/2014</i> <i>Revised 24/11/2014</i> <i>Accepted 4/12/2014</i></p> <p><b>Key words:</b> Mesenteric cysts, Volvulus, Bleeding, Torsion and Rupture.</p>	<p><b>ABSTRACT</b></p> <p>Mesenteric cysts are rare pathologic abdominal masses which cause vomiting and distention and may be complicated with volvulus, bleeding, torsion and rupture, gastrointestinal perforation and even urinary obstruction. We present a patient with a giant mesenteric cyst torsion successfully removed surgically. The rarity of such mesenteric cysts makes them difficult to diagnose clinically and pathologically. Simple mesenteric cysts need to be distinguished from peritoneal inclusion cysts, cystic mesenteric panniculitis, hydatid cysts, cystic teratomas, lymphangiomas, hemangiomas, pancreatic pseudocysts, endometriomas and urogenital cysts of the mesentery. Complete enucleation of these cysts is considered the procedure of choice, to prevent complications, recurrence and possible malignant transformation.</p>
--	---

### INTRODUCTION

Mesenteric cysts are rarely seen in adults with an incidence rate of 1/100000 [1,2]. Despite being rare, these cysts can lead to life-threatening acute abdomen cases by causing complications such as bleeding, infection, torsion, rupture and intestinal obstruction. Although the causes of mesenteric cysts are not clear, it is thought to be caused by lymphatic duct obstruction, lymphatic node degeneration, lymphatic duct injury and mesenteric leaves fail to fuse. Congenital disorders, diverticulitis, pelvic surgery and inflammatory bowel disease are accused in the etiology [3]. Ileum and jejunum are the most common locations (80%). Less frequently, they occur in other parts of the colon and transverse colon [4]. These tumors are benign in general. Their malignant degenerations are rare. Their typical sizes are between 5 and 30 cm. The cysts may have serous, chylous or hemorrhagic content. In this article, a 74-year-old patient admitted to our emergency service because of abdominal pain was discussed.

### CASE REPORT

A 74-year-old female patient admitted to our emergency service with nausea, vomiting, abdominal pain and abdominal swelling complaints. The patient was

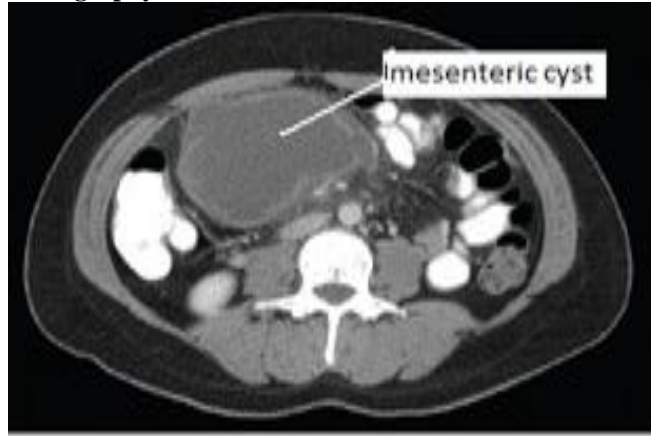
describing an abdominal swelling, growing gradually for approximately 6 months. She had no history or family history in this regard. Her biochemical and hematological parameters were normal. There was an asymmetrical appearance in the physical examination from the right side of the abdomen to the pelvis, indicating a mass. The bowel sounds were decreased. In the palpation test, a mass was palpated in the right lower quadrant. There were widespread abdominal guarding and rebound tenderness. The liver and spleen could not be palpated. The patient had no abnormal findings in the routine examinations. In the direct abdominal imaging, a dense gas appearance was present in the bowels, albeit no air-fluid level was observed. Computed tomography revealed a cystic lesion of 108x55 mm in size with thick septations in the pelvic region. There was a second lesion in the inferior lateral neighborhood of this lesion with mutual multilocular expansions. There was a 17x16 mm of solid mass on the wall of the cystic lesion. No other pathology was identified in other abdominal organs. There was no free fluid in the abdomen. The patient was operated after performing the necessary preparations. There was a cystic mass lesion of chylous character with necrosis in patches ranging from the



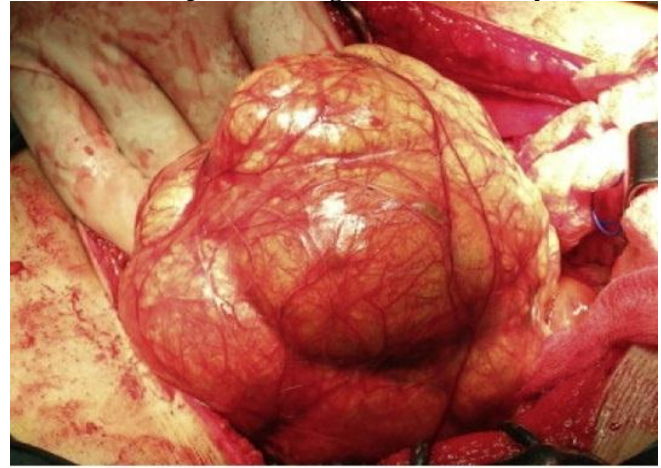
umbilicus to the pelvis in the abdomen. It was observed that the mass was originated and fed in the meso-ileum, and exposed to torsion around pedicle. The mesenteric cyst

was totally excised without damage to adjacent organs. There was no complication in the postoperative period, and the patient was discharged on the 2<sup>nd</sup> postoperative day.

**Picture 1. Image of the Mesenteric cyst In Computerised Tomography**



**Picture 2. Preoperative image of Mesenteric cyst**



## DISCUSSION AND CONCLUSION

Mesenteric cysts are rare in the abdomen. Although their cause and origins are not clear, they are common in childhood [9]. There are numerous opinions suggested on the formation of mesenteric cysts. The most accepted hypothesis is the disconnection of a developing lymphatic tissue with the central lymphatic system due to a trauma or other reasons. That is to say, lymphangiomatosis and malformation are considered as the causes [10]. The mesenteric cysts have a benign character usually. They have a unilocular and multilocular structure, with single-row endothelium covered fibrous wall interiors. These cysts contain serous or chylous fluid inside. Cysts can reach larger sizes by their multilocular structures. Most of the mesenteric cysts develop in the ileum. And, a minority of them develops in the jejunum and other parts of its branches respectively. The contents of the cysts developed in the meso of small intestine were chylous, whereas the contents of the cysts developed in the mesocolon were serous.

Mesenteric cysts can be confused with enteric duplication or pancreatic pseudocysts. Mesenteric cysts can be asymptomatic. They cause abdominal distention, nausea, vomiting and abdominal pain in symptomatic cases. They can cause complications such as intestinal obstruction, volvulus, bleeding into the cyst and torsion. Symptoms are not specific to the disease. These may vary according to the location of mesenteric cysts. They are

identified as a mobile, soft mass, without tenderness. The most common complication is the obstruction caused by the pressure of the cyst on the small intestine. The cyst's torsion or volvulus is less frequently encountered complications. Bleeding into the cyst caused by a trauma leads to a sudden pain and growth. Traumatic rupture, torsion, urinary obstructions and malignant changes of cyst are less common complications. Though rare, generalized peritonitis may be seen because of perforation of the cyst.

Total surgical excision is the definitive treatment of mesenteric cysts. However, it may not be possible to completely remove the cyst in some cases. A segment of the small intestine may need to be excised as well in these cases. We were able to remove the cyst as a whole without complications in our case.

Mesenteric cysts are detected either by chance through the imaging techniques used for various reasons or when fatal complications such as infection, hemorrhage, volvulus, perforation, intestinal obstruction caused by mesenteric cysts occur in certain cases. Therefore, resection should be considered when a mesenteric cyst is identified, albeit accidentally.

In this study, we want to remind the mesenteric cysts and complications when faced with acute abdomen, in line with the literature.

**Conflict of Interest:** Serdar Yormaz and co –authors has no conflict of interest and financial support.

## REFERENCES

1. Vanet VW, Philips AK. (1984). Retroperitoneal, mesenteric and Omental cysts. *Arch surg*, 199, 838-842.
2. Chou Yh, Tiu CM, Lui WY, Chang T. (1991). Mesenteric and omental cysts, an ultrasonographic and clinical study of 15 patients. *Gastrointest Radiol*, 16, 311-4.
3. Liew SCC, Gleen DC, Storey DW. (1994). Mesenteric cyst. *Aust NZ J Surg*, 64, 741-4.
4. Ros PR, Olmsted WW, Moser RP et al. (1987). Mesenteric and omental cysts. Histological classification with imaging correlation. *Radiology*, 164, 327-32.



5. Mollitt DI, Ballantine TVN, Grosfeld JL. (1978). Mesenteric cysts in infancy and childhood. *Surg Gynecol Obstet*, 147, 182-4.
6. Ulman I, Herek O, Ozok G, Avanoğlu A, Erdener A. (1995). Traumatic rupture of mesenteric cysts, a life threatening complication of rare lesion. *Eur J Surg*, 5, 238- 9.
7. Erdener A, Ozok G, Herek O. (1991). Mesenteric cysts in children Medical journal of Ege University, 1, 143-5.
8. Godart S. (1966). Embryological significance of lymphangioma. *Arch Dis Child*, 41, 204-6.
9. Kovalivker M. Motovic A. (1987). Obstruction and gangrene of bowel with perforation due to a mesenteric cyst in a newborn. *J Pediatr Surg*, 22, 377-8.
10. Chung MA, Brant ML, St-Vil D, Yazbeck S. (1991). Mesenteric cysts in children. *J Pediatr Surg*, 26, 1306-8.

