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Multiple Chylolymphatic Cysts in an elderly male- A surgical rarity

KEYWORDS: Mesenteric cyst, chylolymphatic, multiple"

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Introduction:
Mesenteric cysts continue to be rare and reported incidence is said to range from 1 in 27,000 to 1 in 250,000 admissions. (1,2).They were first reported in 1507 by Florentine anatomist Benevieni (1), after he performed a post-mortem examination on an 8-year-old boy. More than 1000 cases of mesenteric cysts have been described since then (3,4).

von Rokitansky first described a chylous cyst in 1842(1). The first surgical management of mesenteric cyst was described by Tillaux in 1880 and a clinical sign describing peculiar mobility of the cyst in a plane perpendicular to small bowel mesentery, which is now known by his name. (5,6)

Marsupialisation of the mesenteric cyst was described by Pean in 1883 (1). Laparoscopic surgery was first employed by Mackenzie in 1993 for removal. (4,7)

Due to asymptomatic nature of these cysts and non specific complaints, they tend to be discovered incidentally during radiological investigations for some other complaint or an incidental finding during a laparotomy for other cause. However, with increasing availability of radiological investigations, more cases are being detected and reported. Many attempts have been made to classify this broad group of diseases based on aetiology and histological features [8,9]. Wide age of presentation is reported from 22 to 46 years(1-3) but they are also known to present in extremes of ages. The highest incidence is reported in fourth decade of life. (10,11). We present a case of multiple mesenteric cysts in an elderly man.

Case Report:
A 70 year old, otherwise healthy male presented to surgical department with pain right lower abdomen and dragging sensation in the abdomen of 6 months duration. He had no associated bowel or bladder symptoms. There was no history of fever. His appetite was normal and there was no history of recent weight loss. His baseline blood investigations including hemogram and biochemistry were within normal limits.

Ultrasound of the abdomen revealed a large multiloculated cyst measuring 10 x 6 cms in size in right lower abdomen - ? Mesenteric cyst. A CT Scan was further done to characterise the lesion(Fig 1).

Intra-operative findings: A large cystic lesion was seen in the mesentery of the ileum with a bulge on either side of mesentery and on one side, a bowel loop was adherent to the cyst wall.(Fig2). The adherent bowel loop was separated from the cyst wall and then dissection was carried out. As further dissection was carried out, it was realised that there were two different cyst, on either side of the mesenteric vessels, which was retrospectively corroborated with CT images and a mesenteric vessel could be seen running between the two cysts. The larger cyst was thin walled and multiseptate and milky contents were clearly seen while the smaller cyst appeared to thick walled and chronically inflamed tissues. The contents of both the cysts were milky white in colour suggestive of a chylolymphatic cyst. Both the cysts were individually enucleated and the mesenteric vessel running between them could be preserved and no bowel sacrifice was necessary. Patient had unremarkable post-operative recovery and was discharged on post-operative day 5. Histopathology of the cysts was consistent with chylolympahtic cyst.

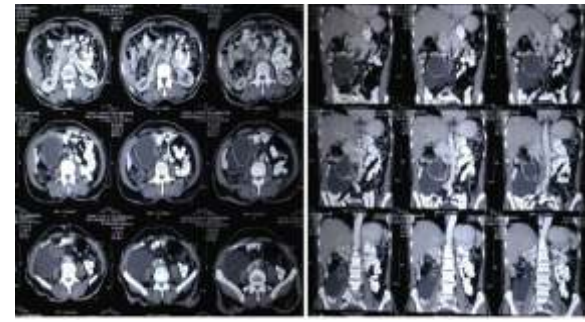

Fig 1. Fig 1. Axial and coronal sections of the CT scan showing a multiloculated cyst measuring 13x7 cms predominantly in right lower abdomen with enhancing walls and septations suggestive of a mesenteric cyst.

Fig 2. Intra-operative photograph showing two cysts on either side of mesenteric vessels.

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Discussion:

Mesenteric cysts may be asymptomatic, when they are incidentally diagnosed on radiology or surgery done for some other cause, and half of the cases are known to present in this scenario. Another presentation is presence of non specific abdominal complaints for which an ultrasound of abdomen is done and the diagnosis is suspected, as was the case in our patient. They may also present as acute surgical abdomen, due to complications of these cysts, which includes intestinal obstruction, volvulus, haemorrhage, infection or cyst rupture. (2,10,12).

The most common presenting abdominal complaint is pain, which was seen in our case too, followed by complaint of abdominal mass and sense of abdominal distension. The most common location of mesenteric cysts is in the small bowel mesentery, especially in the ileal mesentery, as was in our case. These cysts are also known to occur in mesocolon or retroperitoneum. (1,2,6). Most of these cysts are single, but can be unilocular or multilocular. In our case, there were more than one cyst and while one of the cysts was unilocular the other was multilocular. The average size of these cysts vary from 2 to 35 cms.(11,13) The size of the cyst in our case was 12 cm for the larger cyst and 5 cms for the smaller cyst.

Most of these cysts are lined by single layer of columnar or cuboidal epithelial cells (12). Sometimes, the pressure exerted by increasing cyst fluid can destroy this epithelial layer and then the cyst wall becomes composed of fibrocollagenous tissues infiltrated with chronic inflammatory cells, which was the histopathology in our case too. (3, 9, 12).

Cyst fluid can be serous, chylous, lymphatic or haemorrhagic. Serous cysts tend to be seen in mesocolon where chylous or lymphatic cysts in the small bowel mesentery. Haemorrhagic cysts are generally seen after trauma. Incidence of malignancy in these cysts is low and reported to be around 3%. Most of these malignant cysts are in the retroperitoneum and histolgically sarcomas. (1,10,11,13).

Various theories implicated to explain the development of these cysts include misplaced island of lymphoid tissue without drainage channel, mechanical obstruction to outflow of lymph, trauma to lymphatic channels and formation of bowel diverticula, which later may grow in the mesentery as cysts. (13) Both CT and MRI imaging are helpful in diagnosing the condition and location, MRI is more helpful in evaluating the contents of the cysts.(4)

The treatment of choice is surgical removal either by enucleation of the cyst or along with resection of adjacent bowel, if necessary. Simple aspiration and marsupialisation are not recommended anymore due to high recurrence and infection. (1,6,10,12). If laparoscopic surgery can be safely employed with expertise, it may be the procedure of choice as it helps in early post-operative recovery.

Conclusion:

Mesenteric cysts continue to be a rare surgical diagnosis. They tend to asymptomatic and even when they present with symptoms, they can be non-specific. Complete surgical excision is the preferred treatment of choice, and should be considered in all patients, since they are usually cured after complete removal and low morbidity.

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