



## Laparoscopic Removal of Mesenteric Cyst

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### INTRODUCTION

Mesenteric cysts are rare intra-abdominal tumours with a prevalence of 1:100.000 in adults and 1:20.000 in children <sup>[1,2]</sup>. They are usually benign and asymptomatic, but occasionally can present with various, non-specific symptoms. Due to the rarity of this entity and the lack of specific symptoms, correct pre-operative diagnosis is most often difficult.

Complete surgical excision is the treatment of choice. This can be accomplished by laparotomy or by minimally invasive surgery.

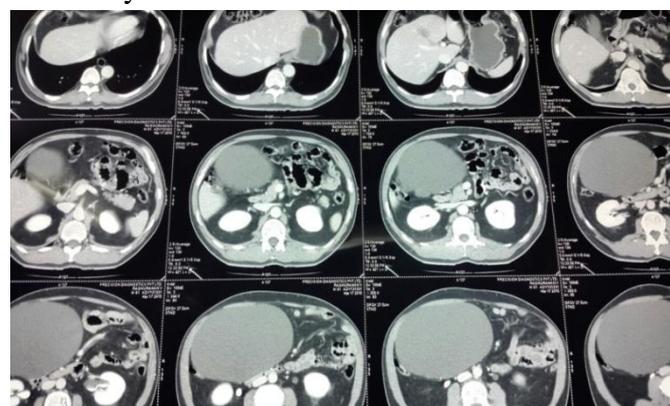
We present a case of mesenteric cyst that was managed laparoscopically.

**Keywords:** Mesenteric Cyst, Classification, Laparoscopic Removal.

### CASE DETAILS

A 61-year old male presented with a five month history of urinary disturbance. He was otherwise asymptomatic and did not give any history of abdominal pain, irregular bowel habits, weight loss. No other significant past history. On examination, a large, smooth mobile mass was palpable in the central quadrant of the abdomen of about 15x15cm size. A preoperative CT of the

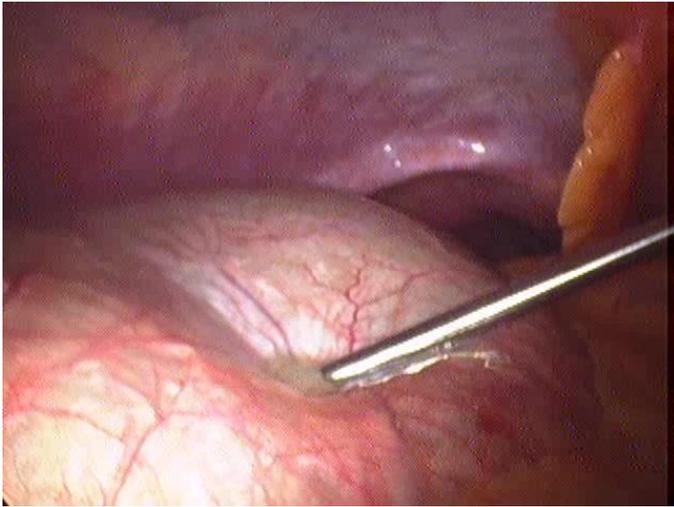
abdomen (Figure 1) showed a 18 × 16 cm intraabdominal, homogenous cystic lesion which was unilocular, with a thin capsule located on the mesentery of the small intestine.



**Figure: 1**

Based on the preoperative CT, a minimally invasive operation was chosen. A total of three trocars were used for the surgery. Initially, a 10mm trocar was placed at the Palmer's point, with two additional 5mm trocars placed under direct vision.

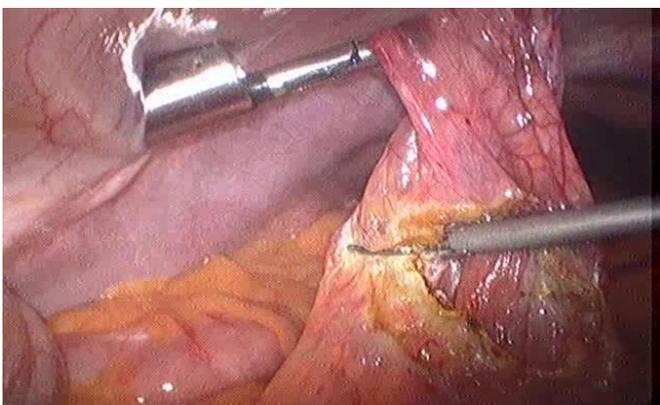
During the laparoscopic exploration, it was noted that the mesenteric cyst was in the right upper quadrant. It was a thin walled structure, with yellow fluid, and was fixed to the mesentery posteriorly, with no other points of attachment (Figure 2 and 3).



**Figure: 2**



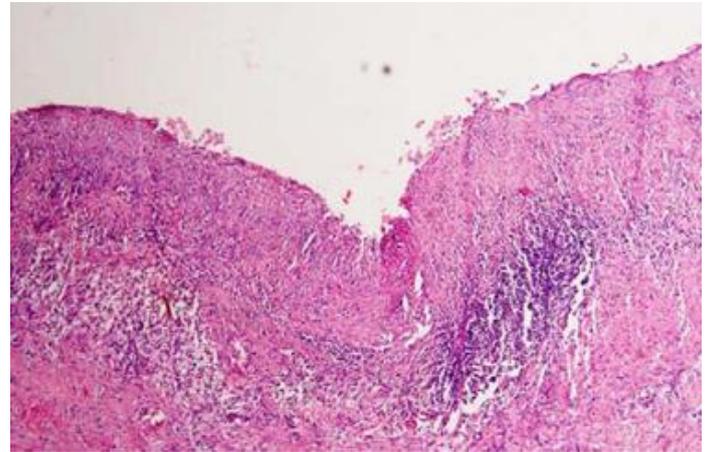
**Figure : 3**



**Figure : 4**

The cyst was mobilized from the mesentery using harmonic scalpel and a suction irrigator (Figure 4). Once free, the contents were aspirated completely, and the cyst was removed in toto and retrieved from the abdomen using a surgical retrieval bag. The patient started tolerating a regular diet the next day, was discharged home the following day and subsequently made a complete recovery.

Pathological examination of the cyst revealed the fluid to be benign. The wall of the cyst was found to be fibrous with histology consistent with lymphangioma (Figure 5).



**Figure 5:** shows cyst wall with lymphoid aggregates.

### Discussion

Mesenteric cysts are uncommon intra-abdominal disorders that do not show typical clinical findings. Almost half of the cases are noticed incidentally during routine abdominal examination, when the patients present with the various abdominal complaints. Mesenteric cysts are most frequently located in mesentery of the small bowel; however, they can also be found in mesentery from the jejunum to the rectum. Ultrasonography and CT are valuable diagnostic tools in this process. CT is useful for delineating the location, extent and nature of these lesions<sup>(3-5)</sup>. The first report of a mesenteric cyst case was in an autopsy by an Italian anatomist, Benevanni, in 1507. The first description of a chylous mesenteric cyst was recorded by Rokitansky in 1842.

The first successful surgical resection was performed by Tillaux in 1880 and the first successful laparoscopic resection was reported by Mackenzie<sup>(3,4)</sup>.

The etiology of lymphangiomas and benign cystic mesotheliomas has not been defined clearly.

However, simple lymphatic and mesothelial cysts are mostly congenital. They can also be related to

previous pelvic surgery, trauma, pelvic inflammatory disease, endometriosis and neoplasia<sup>(3,4)</sup>.

Mesenteric cysts should be treated when they become symptomatic or when they cause complications.

Surgery can prevent complications, such as rupture, bleeding, intestinal obstruction, volvulus, torsion and infection.

Treatment options for mesenteric cyst are simple drainage, external or internal excision, enucleation, and external or internal marsupialisation<sup>(3-5,8)</sup>. The mainstay of treatment is surgical removal of the cyst. Acceptable therapy of the mesenteric cyst is complete resection to avoid malignant transformation<sup>(3, 5,7)</sup>. Excision of the cyst with segmental resection of involved bowel may be required in some patients<sup>(3,4)</sup>.

## CONCLUSION

Mesenteric cysts, although quite rare tumours of the mesenterium, must always be considered in differential diagnosis of an intra-abdominal swelling. Laparoscopic removal of mesenteric cysts is feasible and should be considered as an option of treatment in feasible cases.

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