

## Case Report

## Laparoscopic Excision of Mesenteric Cyst: Case Report

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**ABSTRACT**

Mesenteric cysts are one of the rarest abdominal tumors. Optimal surgical treatment requires complete excision of the cyst to avoid recurrence or possible malignant transformation. The advent of laparoscopic surgery has

allowed resection of these cysts to be achieved without full laparotomy. We report a case of a mesenteric cyst which was excised completely using the laparoscopic approach.

KEYWORDS: abdominal tumor, laparoscopy, mesenteric cyst

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**INTRODUCTION**

Mesenteric cysts (MC) are a rare surgical condition occurring approximately in 1 / 200,000 - 350,000<sup>[1,2]</sup>. The aetiology is unknown and the rarity of the tumor has led to confusion about their nature and classification<sup>[2]</sup>.

The majority are asymptomatic and if found are discovered incidentally during abdominal exploration or radiological examination.

The treatment of MC was surgical excision by laparotomy. However, in 1993 Mackenzie<sup>[3]</sup> described the first laparoscopic excision of a MC. Since then 16 cases have been reported<sup>[4]</sup>.

We report a case of calcified MC which was completely excised using the laparoscopic approach.

**CASE REPORT**

A 44-year-old lady known to have right renal stones was referred to us from the urology department with a reported accidental discovery of a left lumbar mobile non-tender abdominal mass. Plain abdominal X-Ray film showed a calcified mass in left lumbar region (Fig. 1).

Ultrasound and CT abdomen showed a 4 x 4 x 2 cm well defined calcified cystic mass in the left para-umbilical region and two small right renal calcified stones (Fig. 2 & 3).

Laparoscopic exploration was done through a 10 mm port in the infra-umbilical incision after insufflation with a Veres needle. The cyst was seen in the mesentery of the jejunum. Three additional abdominal ports were inserted; a 10 mm in right upper quadrant, a 5 mm in left upper quadrant and a 5 mm in the left iliac fossa. The cyst was

completely excised using cautery scissor and blunt dissection. Then the cyst was retrieved by an endobag through the 10 mm infra-umbilical port.

The operation time was 95 minutes. The patient was discharged home on the second postoperative day.

Pathological examination revealed a 5 cm unilocular cyst. Microscopy showed fibrotic wall without a lining, with dystrophic calcification and with features of fat necrosis.

**DISCUSSION**

MC are uncommon abdominal tumors first described by Benevieri in 1507<sup>[5]</sup>. They are tumors of the mesentery from duodenum till the rectum but are most commonly seen in the small bowel mesentery<sup>[6]</sup>.

They are invariably benign, although 3% are found to be malignant<sup>[7]</sup>. MC may occur at any age but the highest incidence is in the fourth decade of life as in our case. Although MC are often asymptomatic, they can present with abdominal pain, weight loss and as an abdominal mass<sup>[8]</sup>. Fifty percent of MC are palpable on physical examination and are typically mobile transversely and not longitudinally<sup>[1]</sup> as in our case. Accurate diagnosis was seldom made preoperatively<sup>[7]</sup>. Nowadays with the wide use of ultrasound and CT scan, correct diagnosis and localization of the cyst could be made<sup>[9]</sup>. Although calcification of the wall is unusual, our case had calcification of the wall on the plain abdominal X-Ray film.

Pathologically, MC vary in size and shape from a few centimeters to a size that can occupy the



Fig. 1: Plain abdominal X-Ray film showing calcified mass in the left lumbar region

**Table 1:** Ross classification of MC. according to histological characteristics of the cyst wall

Diagnosis	Histological Feature
Lymphangioma	Endothelial lining
Enteric duplication cyst	Enteric lining, double muscle line with neural element
Enteric cyst	Enteric lining, no muscle Layer
Mesothelial cyst	Mesothelial lining
Non - pancreatic pseudocyst	No epithelial lining fibrous wall

peritoneal cavity<sup>[1]</sup>. They can be single or multiple, uni or multiloculated. The color of the cyst contents can vary from clear or milky or dark brown depending on the location of the cyst and the presence of hemorrhage<sup>[9]</sup>. Ross *et al*<sup>[10]</sup> have classified the MC depending on the histological characteristics of the cyst wall as shown in Table 1.

The treatment of choice is complete surgical excision<sup>[3]</sup>. Occasionally resection of the adjacent gut is necessary due to the involvement of the mesenteric vessels<sup>[11]</sup>. Other treatment options include simple drainage or marsupialization that are associated with high rates of recurrence.

In the past, surgical excision required full laparotomy. Nowadays, these cysts can be resected laparoscopically, ever since Mackenzie in 1993



Fig. 2: Ultrasound abdomen showing a 4 x 4 x 2 cm, well defined calcified cystic mass in the left para-umbilical region



Fig. 3: CT scan abdomen showing a 4 x 4 x 2 cm, well defined calcified cystic mass in the left para-umbilical region

reported the first successful laparoscopic excision of a mesenteric cyst<sup>[3]</sup>. The advantages of the laparoscopic approach as compared to open surgery are less postoperative pain, earlier recovery, shorter hospital stay and better cosmesis.

## CONCLUSION

MC are rare yet well recognized cause of an abdominal mass. The laparoscopic approach allows definitive diagnosis and complete resection of MC which ensures fast recovery and better pain control.

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