

Mesocolon Cyst, Case Report and Literature Review

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ABSTRACT

Introduction: They commonly originate in the mesentery of the small intestine (70%), although a proportion has been found to originate in the mesocolon (24%) and the retroperitoneum (14.5%). **Clinical case:** 58-year-old female patient. The intervention was performed by performing exploratory laparotomy, dissecting by planes, cavity with no signs of tumor activity, exposure of the sigmoid colon, following its hilum, a tumor was found in the mesentery, the cyst measuring 150 x 130 mm. solid cystic appearance. **Discussion:** A definitive diagnosis is established through surgical excision and with a definitive study such as histopathological examination of the tumor. All of these considerations were taken into account in the management of our case. **Conclusions:** Regarding the sigmoid mesocolon cyst, it is a rare and mostly benign pathology, with an asymptomatic course and if symptoms are present, it is not very specific, and therefore there is a delay in the diagnosis.

Keywords: Mesocolon, cyst, mesentery, exploratory laparotomy.

INTRODUCTION

As important antecedents, we have that in 1842 the first mesentery cyst was reported and 10 years later the first omentum cyst (1). These can be present throughout the intestinal tract; they can be located from the duodenum to the rectum. They commonly originate in the mesentery of the small intestine (70%), although it has been found that a proportion originates in the mesocolon (24%) and the retroperitoneum (14.5%). (2) Performing a thorough physical examination and performing radiological investigations such as ultrasound and CT scan are the key to diagnosis. A mesenteric cyst originating from the sigmoid mesocolon is a very rare finding (2, 3). Most often, cysts are located in the mesentery of the small intestine. They usually occur during the first decade of life, occurring mainly in pediatric patients. These lesions characteristically arise from the mesenteric border of the intestine. (3)

CLINICAL CASE

This is a 58-year-old female patient, with no known personal history, who consulted for an 8-month history of abdominal pain, weight-type pain of mild intensity located in the left flank and iliac fossa without reporting weight loss. changes in evacuation habits or any associated symptoms. He went to a private doctor who, due to his symptoms and evolution, requested paraclinical tests (hematic biometry, blood chemistry, liver function tests, tumor markers), which were found within normal parameters and, in addition, a total abdominal ultrasound was requested, which reported a passive lesion lodged in the left iliac fossa in relation to the sigmoid colon, measuring 150 x 140 x 90 mm, non-septate, without presence of vascularization, without evidence of free fluid or any additional alteration. Given these findings, it was decided to perform an abdominal CT scan as a complementary study. The report of the simple and contrasted abdominopelvic tomography, which showed the presence of a voluminous collection that projected to the sigmoid colon, which displaced the ipsilateral colon and kidney with a homogeneous content, not septum, 8mm wall, without enhancement of contrast medium, without invasion to other structures, with regular edges, in its largest diameters with measurements about 130 x 100 x 90 mm for an approximate volume of 160 ml, liver, pancreas, spleen, normal intestinal loops, kidneys and system normal excretory. With the above findings, a diagnostic conclusion of mesenteric cyst was reached, for which the patient was scheduled for a surgical procedure.



Figure 2: tumor of soft consistency, with well-defined edges, dependent on mesocolon, loose adhesions between mesocolon fatty tissue and between cyst, with the presence of poor vascularization, not shown with any other adjacent organ.

An exploratory laparotomy was performed, dissecting in planes, a cavity with no evidence of tumor activity, exposure of the sigmoid colon, following its hilum, a tumor was found in the mesentery, the cyst measuring 150 x 130 mm with a solid cystic appearance (Figure 2) without create adhesions to surrounding structures, so the Mattox maneuver is performed , with subsequent exteriorization of the left hemicolon , dissection is carried out up to the hilum of the cyst, With subsequent ligation with 2-0 vicryl , after ligation there was no evidence of involvement of the sigmoid colon or upper portion of the rectum. Intestinal loops were reintroduced and the cavity was closed in planes, with the placement of a Penrose-type drain aimed at the pelvic cavity with a counter opening on the left flank. His post-surgical evolution was adequate and he was discharged 3 days after the surgical procedure. Outpatient post-surgical control was performed after 2 months, and follow-up after one year for a period of three years without evidence of recurrence.

The final pathology report reported:

Surgical piece with anatomical components relationship to cyst, (figure 4) without infiltration of adjacent structures, comprising at the base multiple cysts of variable size, predominantly collapsed, without infiltration of underlying fat, collagen septa separating the cysts.

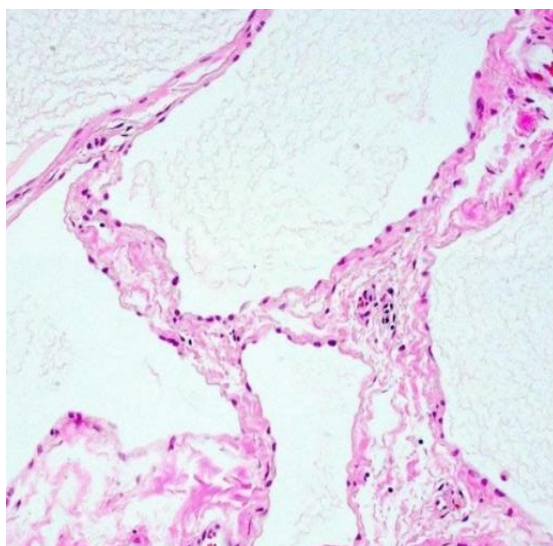


Figure 4: Non-septated mesocolon cyst. The lesion comprises multiple cysts of variable size, predominantly collapsed in the basal part. No underlying fat infiltration. It is lined by flattened mesothelial cells with soft nuclei. The cyst wall was lined by tall, mucin-secreting columnar cells with lymphomononuclear infiltrate.

DISCUSSION

Mesenteric cysts have a low incidence worldwide, approximately 1 in 100,000 adults seeking medical care, and primarily affect people in their second to third decades of life. (1) These lesions can affect any part of the mesentery and account for 7% of all abdominal cysts. These lesions exhibit primarily benign characteristics, but up to 3% of these lesions may be malignant (2).

The etiopathogenesis of the tumors has not been established but there are numerous theories regarding the formation of mesentery and omentum cysts, including benign proliferation of

ectopic lymphatic tissue; Another theory is lymphatic obstruction that causes the formation of large intraperitoneal cysts, which is controversial because experimental obstruction of the mesenteric lymphatic vessels does not produce cyst formation due to the large collateral circulation rich in lymphatic vessels that it presents. Other causes include failure to fuse the leaves of the mesentery, occult trauma, neoplasia, and degeneration of lymph nodules (3,4). In this case, the probable origin of the cyst was a failure of the fusion of the leaves of the mesentery and a failure in lymphatic drainage, since there is no significant history that demonstrates its origin.

The diagnosis is difficult to make, since it commonly imitates other conditions if it debuts with symptoms, it can be confused with pelvic inflammatory disease, pancreatic pseudocyst. The diagnostic suspicion may arise due to: non-specific abdominal symptoms, incidental radiological findings or acute abdomen. Some reported complications include intestinal obstruction, bleeding, rupture, intestinal torsion, or volvulus (5). As in this case and as in most cases, the cyst is detected by performing an imaging study due to suspicion of a different pathology.

Imaging studies are important for preoperative diagnosis. On ultrasound they are seen as hypoechoic masses filled with echogenic content such as debris. On the tomography you can see a cyst with a thick wall with a liquid level resulting from bleeding or debris, without internal septa (6).

Different imaging modalities have different clinical benefits, but tomography and magnetic resonance imaging are most important in determining precise location as well as its relationship to other neighboring structures (7).

A definitive diagnosis is established through surgical excision and with a definitive study such as histopathological examination of the tumor. All these considerations were taken into account in the management of our case (8).

In the differential diagnosis of cysts of the mesentery and omentum, an important factor is the age of the patient, since some lesions such as lymphangioma, cystic teratoma and duplication cysts are more common in childhood. The cystic teratoma may contain areas of fat inside, which are not seen in the rest of the lesions, and peripheral calcification. Cystic mesothelioma is a multiseptal, peritoneal lesion, most common in the pelvis and in middle-aged women (9,10). By imaging methods, it can simulate a lymphangioma, and may be indistinguishable from it. Pseudomyxoma peritonei usually results in diffuse involvement. Necrotic spindle cell tumors can produce nonspecific cystic masses.

Surgical resection of the cyst is the basis of treatment; follow-up with imaging controls must be carried out since a small percentage has demonstrated recurrence and malignant transformation. The laparoscopic route is the safest and reduces postoperative pain, shortens the length of hospital stay and has demonstrated better recovery rates (10). In our case, laparoscopy was not possible due to the size of the lesion. However, the approach was satisfactory since it did not cause recurrence and allowed adequate visualization of the underlying structures with control of the hilum of the sigmoid mesocolon as well as its preservation.

CONCLUSION

In relation to the sigmoid mesocolon cyst, it is a rare and mostly benign pathology, with an asymptomatic course and if symptoms are present, it is not very specific, and therefore there is a delay in the diagnosis. Its diagnostic process and characterization are based on radiological studies, from ultrasound to magnetic resonance imaging. The treatment of choice is surgical, in this way recurrences are avoided, with a recurrence occurring in a small percentage. Patient who in this case had an adequate response to surgical treatment, whose evolution had no complications associated with the procedure or with the histopathological report which demonstrated a benign condition.

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