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CASE PRESENTATION

Mesenteric cyst as a cause of acute abdomen: regarding a case

Quiste mesentérico como causa de abdomen agudo: a propósito de un caso

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ABSTRACT

Introduction: the mesenteric cyst is a pathological entity that occurs infrequently and its diagnosis is generally incidental. They can be located from the duodenum to the rectum. Its clinical presentation is nonspecific, which hinders the diagnosis and can be found as an incidental finding. Its clinical manifestations depend mainly on size and location. Treatment is surgical with excision or enucleation.

Objective: to describe the case of a patient with Acute Abdomen Syndrome due to mesentery cyst.

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Case Presentation: we present the case of a 35-year-old patient with acute abdomen secondary to a mesenteric cyst who came to our service due to severe abdominal pain associated with lipothymia. After presenting a peritoneal reaction and hypotension, she underwent emergency surgery and approximately 800 ml of serohematic contents were aspirated from the abdominal cavity. A ruptured double-wall mass is observed at the level of the ascending colon, which involves the mesentery, which impresses a ruptured mesentery cyst.

Conclusions: acute abdomen secondary to complications of a mesenteric cyst is rare and should be taken into account as a differential diagnosis in patients with Acute Abdomen Syndrome and palpable mass. The patient's surgical intervention allowed timely treatment without complications.

Keywords: Acute Abdomen; Abdominal pain; Mesentery; Mesenteric Cyst

RESUMEN

Introducción: el quiste mesentérico es una entidad patológica que se presenta con poca frecuencia y su diagnóstico es generalmente incidental. Pueden localizarse desde el duodeno hasta el recto. Su presentación clínica es inespecífica lo que entorpece el diagnóstico y pueden encontrarse como hallazgo incidental. Sus manifestaciones clínicas dependen principalmente del tamaño y localización. El tratamiento es quirúrgico con escisión o enucleación.

Objetivo: describir el caso de una paciente con Síndrome de Abdomen Agudo por quiste de mesenterio.

Presentación del Caso: presentamos el caso de una paciente de 35 años con abdomen agudo secundario a quiste mesentérico que acude a nuestro servicio por presentar dolor abdominal intenso asociado a lipotimia. Tras presentar reacción peritoneal e hipotensión es intervenida de urgencia y se aspiran de la cavidad abdominal aproximadamente 800 ml de contenido serohemático. Se observa a nivel del colon ascendente, que involucra mesenterio, una masa de doble pared rota, que impresiona un quiste de mesenterio roto.

Conclusiones: el abdomen agudo secundario a las complicaciones de un quiste mesentérico es raro y debe tenerse en cuenta como diagnóstico diferencial en los enfermos con un Síndrome de Abdomen Agudo y masa palpable. La intervención quirúrgica de la paciente permitió un tratamiento oportuno y sin complicaciones.

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Palabras clave: Abdomen Agudo; Dolor abdominal; Mesentério; Quiste Mesentérico

INTRODUCTION

Mesenteric cysts are a pathological entity that occurs infrequently and are generally diagnosed incidentally. The first case was described in Italy in 1507. In 1880, Tillaux was the first surgeon to successfully remove one. (1)

Currently, its incidence is approximately 1 in 100 000 adult patients and 1 in 20 000 children who attend a hospital. Other bibliographies establish a frequency of one in 26 794 to 250 000 hospital admissions. It occurs more in adults and, within this age group, in the female sex, between 40-70 years of age. (2,3,4)

The totality of elements that intervene in its etiology are still unknown, however, it is believed that it is due to a failure in the communication between the lymph nodes with the lymphatic or venous system. This may be due to lymphatic blockage, either by trauma, infection or neoplasia, or by proliferation of ectopic lymphatic tissue that does not connect to the lymphatic system. (5)

Mesenteric cysts are usually smooth and round, with a thin wall, unilocular, and contain a serous fluid similar to plasma, or a milky fluid. There are considered to be 5 different histological types of mesenteric cysts, which are chylolymphatic, simple (mesothelial), heterogeneous, urogenital remnant, and dermoid, with chylolymphatic being the most common. (6)

Mesentery cysts can be located from the duodenum to the rectum. They are most frequently found in the ileal mesentery of the small intestine (67 % of cases) and in the mesocolon in 33 %, of which 24 % are located in the ascending colon. Sometimes they can extend to the retroperitoneum (14,5 %) and in one third of patients multiple cysts will be found. (7)

Their clinical presentation is nonspecific, which makes diagnosis difficult and in up to 40 % of cases they are found as an incidental finding during imaging studies or during abdominal surgery. Their clinical manifestations depend mainly on the size and location, as well as the relationship with neighboring organs of the cyst, so three clinical forms are recognized: incidental form, chronic condition and acute abdomen syndrome. (7)

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Regarding the prognosis of this entity, the consulted research reports that it depends fundamentally on the clinical conditions of the patient. However, "there is a morbidity of 2 % of cases of enucleation up to 25 % of cysts in large resections. It is generally excellent as long as complete excision is achieved." (8)

The diagnosis is made through imaging tests such as ultrasound and/or computed axial tomography of the abdomen. The treatment is surgical with excision or enucleation, to exclude malignant transformation, which can occur in up to 3 % of cases, as well as to avoid complications such as rupture, hemorrhage, torsion or infection. Intestinal resection is rarely necessary. (8)

Taking into account the above and due to the small number of cases described with this pathology, the following case report was made, in which the clinical presentation, diagnosis and treatment used in this case will be presented. The objective of this presentation is to describe the case of a patient with Acute Abdominal Syndrome due to a mesentery cyst.

CASE PRESENTATION

This is a 35-year-old white female patient who comes to the emergency room of the Faustino Pérez Provincial Clinical-Surgical-Teaching Hospital in the Matanzas municipality, Matanzas province; on March 24, 2024. She has a history of high blood pressure for which she is on stable treatment and menstrual irregularity for which she has been taking birth control pills for approximately two months. She reports that approximately 12 hours ago she began to have diffuse abdominal pain that then focused on the lower abdomen. In the early morning hours she had two small bouts of diarrhea, which made the pain worse and was accompanied by intense "fatigue" with cold, pale and sweaty skin.

To the positive physical examination:

Skin and mucous membranes: cold, pale and sweaty skin. Cardiovascular: rhythmic heart sounds, good tone and intensity, no murmurs. BP: 90/70 mmHg and HR: 85 beats per minute. Abdomen: soft, depressible, painful to palpation in the hypogastrium and right iliac fossa, no peritoneal reaction. No visceromegaly, nor palpable masses. Slightly increased hydro-air sounds. Paracentesis was performed with negative results. Vaginal examination: warm vagina, painful to mobilization of the cervix, no palpable masses or secretions.

Complementary exams

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Complete blood count: Hematocrit: 0,40; Leukocytes: 10 x 109/LM; PMN: 0,77 and leukocytes 0,23; Bleeding time: 1 minute.

Hemochemistry: Glycemia: 6,04 mmol/L, Creatinine: 72 µmol/L, Cholesterol: 2,6 L, Triglycerides: 1,59 mmol/L, Alkaline Phosphatase: 90 Ul/L.

Abdominal ultrasound: No alterations are seen in the liver, gallbladder, pancreas, spleen, both kidneys and bladder. Presence of fluid in all spaces, more abundant in the hypogastric region.

Gynecological ultrasound: Uterus measuring 58 x 49 x 49 mm with 5 mm endometrium. No IUD. Moderate amount of fluid in the cul-de-sac. Left ovary with follicular cyst. Right adnexa is not visualized.

The patient is admitted to the Surgery Department with abdominal pain for study. Two hours after her admission she reports that the pain has worsened and is assessed by the Surgery Emergency Room. At that time she is experiencing peritoneal and hypotensive reaction, so her emergency surgery is announced.

An exploratory laparotomy with a Pfannenstiel incision is performed since the patient's physical examination revealed a bulging fornix by vaginal touch. When opening the cavity, a large amount of clear serosanguineous content is released; this is aspirated and the adnexa and uterus are observed without alterations. It is decided to extend the incision with infra and supra umbilical media.

Then, approximately 800 ml of content with the same characteristics already described is aspirated from the abdominal cavity, after taking a sample for cytological study. The patient was eviscerated and a double-walled mass was observed at the level of the ascending colon, which involved the mesentery. The surgeons considered it to be a ruptured mesentery cyst. The cavity was washed and a Penrose drain was left in the right parietocolic area. The planes were closed and a sterile dressing was placed.

The patient's postoperative evolution was adequate and he was discharged after 3 days of hospital stay. The cytological study later showed no signs of malignancy.

DISCUSSION

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Mesenteric cysts are a rare nosological entity in our environment, with a worldwide incidence of 1 per 100,000 adult patients, affecting mainly young adults. These lesions can be located in any part of the abdominal anatomy, but are more frequent in the ileum and mesocolon, as occurred in the case presented here since the cyst was located in the ascending colon. (9)

The diagnosis of this pathology is very complicated and in many cases it is made incidentally or during abdominal surgery secondary to another cause. Its presentation as an Acute Abdominal Syndrome is a common element found in much of the scientific literature compared to other case reports; which leads to considering it as a differential diagnosis with other more common pathologies causing this syndrome. (9)

According to Granados Romero J et al., (10) the classic form of presentation of this entity is as an intestinal occlusion, which can cause intestinal volvulus and ischemia. However, it can also be asymptomatic. Serrano Pastrana et al., (11) state that mesenteric cyst rupture is a rare condition, usually secondary to abdominal trauma. However, the patient presents with Peritoneal Syndrome secondary to the rupture of a mesenteric cyst, which makes the case even less common.

Among the complications that the patient may experience are: peritonitis secondary to cyst perforation, intestinal occlusion, kidney failure, scrotal herniation, volvulus and even malignancy, but these are generally rare. (12)

It is a consensus within the reviewed literature that imaging studies are the fundamental tool for preoperative diagnosis. Among these, ultrasound, computerized axial tomography and magnetic resonance are very useful. The definitive diagnosis is established during the surgical procedure with the excision of the cyst, as in our patient, and subsequently with the histopathological study. (13)

The definitive treatment is surgical resection of the cystic mass and has been shown to prevent recurrence, malignancy and other complications. There is still a dilemma between the best way to perform the treatment, laparoscopic or conventional, and although the former provides many benefits, it is still advocated that the route be chosen based on the surgeon's criteria and experience. (14)

CONCLUSIONS

Mesenteric cyst is a rare entity. The low incidence of this pathology and its different forms of clinical presentation, whether asymptomatic, as an

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abdominal mass or Acute Abdominal Syndrome, the latter being the most frequent and corresponding to the case in question, often makes its diagnosis complex. The use of imaging studies is essential. Acute abdomen secondary to complications of a mesenteric cyst is rare and should be taken into account as a differential diagnosis in patients with Acute Abdominal Syndrome and a palpable mass. The patient's surgical intervention allowed timely treatment with satisfactory clinical improvement and without complications during the postoperative period.

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STATEMENT OF AUTHORSHIP

LEML: Conceptualization, data curation, formal analysis, investigation, visualization, writing-original draft, writing-review and editing.

OYVP: Conceptualization, data curation, formal analysis, investigation, visualization, writing-original draft, writing-review and editing.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest.

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