



Acute Abdominal Pain Caused by a Mesenteric Cyst in a 20 Years Old Female Patient

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Abstract

To present a case of a mesenteric cyst with focal acute inflammation and four lymph nodes with follicular lymphoid hyperplasia. A 20-year-old female patient, examined in emergency department for abdominal pain, 12 hours of evolution located in flank and left upper quadrant, with mild improvement after analgesic treatment, accompanied with mild fever. Left paramedial cystic formation measuring 4 cm in size with echogenic content inside is identified, being compatible with complicated mesenteric cyst. Exploratory laparoscopy treatment of emergency is proposed. The postoperative course was favourable remaining afebrile, no abdominal pain and good tolerance to oral intake, so it is hospital discharged within 72 h of surgery. The diagnosis was mesenteric cyst with focal acute inflammation and four lymph nodes with follicular lymphoid hyperplasia.

Introduction

Mesenteric cysts are rare intra-abdominal benign tumors, about whose etiology and classification controversy still exists [1]. They are the rarest variety within the abdominal cysts and both its low incidence and the mistaken belief that it is a trivial process without apparent symptoms, have contributed to their scarce knowledge [2].

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Case Presentation

A 20 years old woman with no background of interest, who came to the emergency room of the Royo Villanova Hospital due to abdominal pain 12 h of evolution located in flank and left upper quadrant, with mild improvement after analgesic treatment, accompanied with mild fever. Does not refer nausea or vomiting or changes in bowel habits.

Physical exploration

Temp: 37.6°C; TA: 123/72; FC: 86 lpm; Sat. O₂ 100%. Conscious oriented normocolored and normohydrated patient. AC: rhythmic tones to 80 lpm No audible murmurs or extratones. AP: normoventilated. Abdomen: soft, depressible, painful on palpation in the left iliac fossa, with no signs of peritoneal irritation. Peristalsis preserved. Bilateral renal succession negative. Femoral pulses present and symmetric. EEI: No edema or signs of DVT. Pedis pulses present.

Supplementary tests

CBC: Hb 12.8 g/dl; HCT 37.9%; 216,000 platelets/mm³; Leukocytes 12,100/mm³; Neutrophils 79.4%; Lymphocytes 11.3%. Biochemistry: Glucose 120 mg/dl; Urea 15 mg/dl; Creatinine 0.71 mg/dL; Sodium 140 mEq/L; Potassium 4.3 mEq/L. Coagulation: PT 17.9 sec; AP 59.3%; INR 1.32; APTT 26.5 sec; Fibrinogen 358 mg/dl. Urine: No abnormalities. BHCG negative.

Abdominal ultrasound

Liver of normal size and morphology with echostructure preserved, without appreciating LOEs. Gallbladder, bile duct, pancreas, spleen and both kidneys in normal size morphology and echostructure. No lymphadenopathy. No free fluid. Left paramedial cystic formation measuring 4 cm in size with echogenic content inside is identified.

Contrast-enhanced CT

Left paramedial cystic injury of 4 cm, at the height of the aortic bifurcation, 4 cm in size, with



Figure 1: Computerized axial tomography scan which allows observing, left paramedial cystic injury located at the height of the aortic bifurcation compatible with mesenteric cyst.

greater density in its bottom portion. It enhances peripherally with the dye and it does not communicate with the gastrointestinal tract, being compatible with complicated mesenteric cyst. The lesion is accompanied by increased density of mesenteric fat (panniculitis) and small locoregional mesenteric lymph nodes. Discrete amount of free fluid in pelvis (Figure 1).

Evolution

Exploratory laparoscopy treatment of emergency is proposed. The postoperative course was favourable remaining afebrile, no abdominal pain and good tolerance to oral intake, so it is hospital discharged within 72 h of surgery. Anatomopathological examination of the surgical specimen was reported as:

Macroscopic description

Formation rounded ovoid 4 cm × 3 cm maximum dimensions. After opening it, a cystic cavity of approximately 2 cm of maximum diameter and irregular walls is objective with a whitish color and soft consistency content.

Microscopic description

Fibroconnective tissue with presence of a cystic cavity without epithelial lining, a proteinaceous and hematic content and with the presence of histiocytic and polymorphonuclear cells. Adjacent to said lesion the presence of four lymph nodes with lymphoid follicular hyperplasia is observed.

Diagnosis

Mesenteric cyst with focal acute inflammation. Four lymph nodes with follicular lymphoid hyperplasia.

Discussion

We report the case of a 20-year-old patient who comes to the emergency room with abdominal pain in flank and left upper quadrant associated with mild fever. After performing tests, it is diagnosed "mesenteric cyst with acute focal inflammation and four lymph nodes with lymphoid follicular hyperplasia".

Mesenteric cyst is called to all tumor liquid content of any pathogenetic origin which lies between the two layers of the mesentery, being most frequently on the ileal mesentery and right colon mesentery in 67% and 33% of the cases respectively. Approximately 14.5% corresponds to a retroperitoneal location [3]. Mesenteric cysts usually are unilocular containing serous fluid. Its size range from a few millimeters up to completely fill the abdominal cavity. Histologically it includes a cuboid epithelium or cylindrical

with microvilli, and sometimes smooth muscle component [4]. The differential diagnosis should include ovarian, pancreatic, renal or splenic cysts, along with hydronephrosis, periappendicular abscesses and even septic ascites, among others [5].

The etiologic of mesenteric cysts is unclear; considered from the injury and obstruction of the lymphatic vessels, degeneration thereof, to the failed fusion of mesenteric layers, being benign proliferation of ectopic lymphatic vessels in the mesentery with the creation of enclosed spaces where the lymph fluid accumulates, the most common cause in most cases [6].

Approximately 50% are asymptomatic. Mild abdominal pain, dull and poorly localized type is the most common clinical manifestation (55% to 82%). Other manifestations described are nausea and vomiting (45%), abdominal distention (17% to 61%), abdominal masses palpable (44% to 61%), constipation (27%) or diarrhea (6%). There have also been cases of compression of adjacent structures, resulting in pyelonephritis, due to ureteral obstruction; acute abdominal because of infection of the tumor; inguinoescrotal tumor; jaundice and anemia due to intratumoral bleeding [7]. Some authors claim that the symptoms associated with this disease are mainly shown in patients whose cysts exceed 5 cm diameter [5,6]. Usually they detected incidentally during ultrasound imaging study, computerized axial tomography or nuclear magnetic resonance, and even during a surgical procedure for another symptom [8].

Regardless of its origin, the treatment of choice is surgical excision, thus avoiding excessive growth or the appearance of serious complications for the patient. Sometimes the cyst closely shares its blood supply with a segment of the intestine so resection intestinal segment involved is required (up to 60% of cases) [8,9]. The type of surgery depends on the size of the cyst, its location in the peritoneal cavity and the experience of the surgeon. Laparoscopy is the technique used as a first option, since results similar to laparotomy have been achieved but with less comorbidity and postoperative stay. If surgical resection is not possible, another option is the subtotal or partial resection with marsupialization and sclerosis of the endothelium cyst [10].

References

- Ramirez-Ortega MA, Villegas-Romero J, Marquez-Diaz A, Gomez-Diaz A. A cystic mesenteric lymphangioma presented at the colon sigmoid. Case report. *Rev Med Inst Mex Seguro Soc.* 2010;48(5):557-62.
- Sosa R, Sánchez CA, Simón L. mesenteric cyst: a case report and literature review. *Rev Cubana Cir [online].* 2007;46(4).
- Rivera-Montes AM, Angelica-Barrera Y, Basavilvazo Rodriguez MA, Hernandez-Valencia M. Mesenteric cyst. A case report. *Rev Med Inst Mex Seguro Soc.* 2008;46(4):423-6.
- Riquelme MF, Vega L, O'Brien SA. Mesenteric masses: Evaluation by Computed Tomography. *Rev Chilena Radiol.* 2009;15(4):165-73.
- Pinotti E, Nardone A, Deldycke A, Ielapi S, Macchini D. Mesenteric cysts: case report, differential diagnosis and literature review. *Open J Clin Med Case Rep.* 2016;2(23).
- Eun-Ji K, Seung-Hyun L, Byung-Kwon Ahn, Sung-Uhn B. Acute abdominal Caused by an infected mesenteric cyst in the ascending colon: a case report. *J Korean Soc Coloproctol.* 2011;27(3):153-6.
- Seung Y, Yee S, Ryoung B, Hoon K, Tai H, Yun J, et al. Laparoscopic treatment of an omental cyst misdiagnosed as an adnexal cyst: A case report. *J Women's Med.* 2010;3(2):84-7.

8. Diaz-Beveridge R, Melian M, Zac C, Navarro E, Akhoundova D, Chrivella M, et al. Primary mesenteric undifferentiated pleomorphic sarcoma masquerading as a colon carcinoma: a case report and review of the literature. *Med Oncol Rep case*. 2015;532656.
9. Dufay C, Abdelli A, Le Pennec V, Chiche L. Mesenteric tumors: diagnosis and treatment. *J Visc Surg*. 2012;149(4):e239-51.
10. Granados JJ, Valderrama AI, Sevilla M. Approach mesenteric cyst, a not so infrequent. Presentation of a case. *Revista Mexicana de Endoscopic Surg*. 2013;14(1):34-7.