

Case Report

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Mesenteric Cyst- A Rare Cause of Abdominal Pain in McBurney's Point and Presence of need to Urinate in Sitting Position: Case Report

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ABSTRACT

Background: Mesenteric cysts are rare benign intra-abdominal tumors manifested with a lack of specific symptoms with the importance of diagnosis because of various complications associated with suboptimal surgical management.

Aim: To raise awareness about the unusual manifestation of mesenteric cyst at unusual age.

Case Report: A 19-year-old male adolescent came to the local ambulance due to throat pain and the appearance of a need to urinate but only while he was sitting. During physical examination his throat was hyperemic and abdominal painful resistance was palpated in the suprapubic area. He was given Cefuroxime and probiotics due to suspicion of cystitis. After three days on control examination, his throat pain was gone but abdominal pain was still present. During this physical examination, a painful resistance was palpated in McBurney's spot. Further examination indicated ultrasound, which showed a round formation size of approximately 3.5 cm located above the bladder, paraaortal. Behind formation was present acoustic enhancement. The patient was referred to the general surgery department, the appointment was scheduled for next week. But in the evening of that same day the abdominal pain increased so he went to the emergency room. The patient underwent computed tomography. CT confirmed the presence of cystic formation in the right lower quadrant probably corresponding to the mesenteric cyst of the small intestine. Due to findings patient was referred to the surgery intervention to remove the cyst.

Conclusion: Mesenteric cysts are very rare conditions but different abdominal symptoms due to cyst localization and specific ultrasound findings should raise the suspicion of abdominal cysts.

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Introduction

Mesenteric cysts are rare benign intra-abdominal tumors with an incidence of 1 case per 250,000 hospital admission. They may be localized all over the mesentery but, they are mostly found in the ileum and right colon mesentery mostly manifested with a lack of specific symptoms. The importance of diagnosis are various complications associated with suboptimal surgical management [1].

Case Presentation

A 19-year-old male adolescent came to the local ambulance due to throat pain and the appearance of a need to urinate but only while he was sitting. During physical examination his throat was hyperemic and abdominal painful resistance was palpated in the suprapubic area. He was given Cefuroxime and probiotics due to suspicion of cystitis. After three days on control examination, his

throat pain was gone but abdominal pain was still present. During this physical examination, a painful resistance was palpated in McBurney's spot. Further examination indicated ultrasound, which showed a round formation size of approximately 3.5 cm located above the bladder, paraaortic. Behind formation was present acoustic enhancement. The patient was referred to the general surgery department, the appointment was scheduled for next week. But in the evening of that same day, the abdominal pain increased so he went to the emergency room. On clinical examination, he was conscious, oriented, and not pale. His vital parameters were found to be within normal limits. The patient underwent computed tomography. CT confirmed the presence of cystic formation in the right lower quadrant probably corresponding to a mesenteric cyst of the small intestine without changes of the appendix. Due to findings patient was referred to the surgery intervention to remove the cyst. Exploratory laparotomy and excision of the cyst were performed. Based on pathohistological analysis cyst was defined as a retention cyst. The operation went without complications. The patient has had no longer any symptoms.

Discussion

Abdominal cysts are Cystic lesions found in and around the peritoneal cavity. They can arise from the abdominal organ or mesentery and peritoneum. When the cystic lesion can be recognized to arise from one of the solid abdominal organs, the differential considerations can be more straightforward. Cystic lesions arising from the mesentery and peritoneum are less commonly encountered and can be caused by relatively rare entities or by a variant appearance of less rare entities. However, many cystic lesions, particularly when large, cannot be clearly associated with any one organ. Moreover, lesions arising from the peritoneal surface, omentum, mesentery, adnexa, or gastrointestinal tract develop within the same general anatomic space [2].

Cystic-appearing lesions arising in the peritoneal cavity can be classified according to their cause or histologic definition. Based on their cause abdominal cysts can be congenital, neoplastic, reactive or proliferative, infectious or inflammatory, iatrogenic or traumatic. On the other hand, based on histology abdominal cysts can be true cysts, pseudocysts, trapped fluid, solid lesions mimicking a cyst. True cysts are lined by epithelium, endothelium, or mesothelium, depending on the tissue of origin; pseudocysts lack such a lining. Collections of necrotic tissue, pus, hemorrhage, or loculated ascites can be indistinguishable from true cysts at imaging [2].

The term "mesenteric cyst" is considered descriptive of the location and gross appearance of "any cyst" arising in the mesentery. They may be localized all over the mesentery, from the duodenum to the rectum, however, they are mostly found in the ileum and right colon mesentery [1]. There are several classifications of these formations, among which the one based on histopathologic features including 6 groups: lymphatic (hilar cysts) and lymphangiomas, benign or malignant mesothelial cysts, enteric cysts, cysts of urogenital origin, dermoid cysts, and pseudocysts of infectious or traumatic etiology. Although there are a number of hypotheses explaining the genesis of these cysts, the exact etiology is unknown. Some authors consider that mesenteric, omental, and retroperitoneal cysts have the same origin. Other authors define these various mesenteric cysts as separate entities [3].

The clinical picture varies according to the size, number, anatomic structure, and position of the cyst. The main presenting symptom is abdominal pain, followed by nausea and vomiting. Some mesenteric cysts may also present as an acute abdomen due to a possible complication, such as hemorrhage, rupture, or torsion of the cyst. In many cases they are manifested with a lack of specific symptoms so very often, they are discovered either accidentally during an abdominal radiological examination for other reasons or during laparotomy [4].

In this case, first main symptoms were abdominal suprapubic pain and the need to urinate in a sitting position. Clinical manifestations of cystitis consist of dysuria, urinary frequency, urgency, and/or suprapubic pain so based on this first manifestation symptomatic cystitis was suspected. Cystitis in males is uncommon, and there are no comparative antimicrobial treatment trials from which to draw evidence-based recommendations. The patient was given cefuroxime for seven days. After three days abdominal pain was still present but this time located in the right lower quadrant. On examination pain in McBurney's point was found. Pain in McBurney's point is included in The Alvarado score for clinical diagnosis of acute appendicitis. The Alvarado score has minimal evidence backing its use, and it has limited utility.

Ultrasound should be the first line for diagnostic evaluation of appendicitis when it can be readily obtained. In this case, ultrasound showed a round formation size of approximately 3.5 cm located above the bladder, paraaortic without changes of appendix. Behind formation was present acoustic enhancement. Founded round formation was suspected as simple cysts. Simple cysts are well-defined, anechoic, spheroid structures with posterior acoustic enhancement and no internal flow at color Doppler imaging. The presence of hemorrhage or debris within a cystic lesion will introduce internal echoes, which may complicate the distinction from solid lesions. With increasing cyst complexity or size, CT or MRI may be needed for further evaluation. In this case in the evening of that same day the abdominal pain increased so he went to the emergency room. The patient underwent computed tomography. CT confirmed the presence of cystic formation in the right lower quadrant probably corresponding to a mesenteric cyst of the small intestine [1-6].

The standard treatment of mesenteric cysts is surgical resection, which is mandatory in patients with large cysts to confirm the benign nature because the definitive diagnosis can be made only by resection. Indeed, complete resection of the cyst is required to avoid recurrence, especially in cases of malignancy and to prevent the development of acute abdomen induced by torsion, rupture, or infection. Once the decision has been made to remove a mesenteric cyst, the next decision is whether to perform resection through an open or laparoscopic approach; this depends on the preoperative diagnosis. If the cyst is possibly hemorrhagic, infectious, or parasitic, the open approach might be preferred. When malignancy is suspected, the open approach is also considered reasonable. Laparoscopic cyst removal is considered a preferred approach and can be performed safely in properly selected patients as patients with benign, noninfectious and nonhemorrhagic cysts [7-9].

Due to findings patient was referred to the surgery intervention to remove the cyst. Exploratory laparotomy and excision of the cyst were performed. Based on pathohistological analysis cyst was defined as a simple retention cyst. The operation went without complications. The patient has had no longer any symptoms.

Conclusion

Mesenteric cysts are very rare conditions but different abdominal symptoms due to cyst localization and specific ultrasounds findings should raise the suspicion of abdominal cysts. Surgery is the treatment of choice as complete resection. Although mesenteric cysts are rare and mostly manifested with nonspecific symptoms, diagnosis of mesenteric cysts is important because of differential diagnosis of abdominal pain and various complications associated with suboptimal surgical management.

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