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Case Study

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MESENTERIC PSEUDOCYST OF THE SMALL BOWEL: CASE REPORT

Faten Limaiem*[1,2] and Saâdia Bouraoui[1,2]

[1]University of Tunis El Manar, Tunis Faculty of Medicine, 1007.
[2]Department of Pathology, University Hospital Mongi Slim La Marsa.

***Corresponding Author: Dr. Faten Limaiem**

University of Tunis El Manar, Tunis Faculty of Medicine, 1007.

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ABSTRACT

Introduction: Mesenteric pseudocysts are rare types of mesenteric cysts, which are often asymptomatic and found incidentally on imaging or during an unrelated surgery. **Case report:** A 40-year-old man consulted for intermittent abdominal pain for the past four months. Physical examination found discreet abdominal tenderness with no palpable mass. Computed tomography showed a hypodense unilocular mesenteric cyst measuring 6 cm in diameter. The patient had an excision of the small intestine and cystic formation of the mesentery. On cut section, the mesenteric cyst contained a white clayish material. Histological examination of the samples taken from the cystic formation showed a fibrous and inflammatory cystic wall devoid of epithelial lining. The final pathological diagnosis was that of a mesenteric pseudocyst. **Conclusion:** Mesenteric pseudocysts are difficult to diagnose due to the lack of specific clinical, laboratory and imaging findings. Only histopathological examination of the surgical specimen establishes the correct diagnosis. Despite their rarity, mesenteric pseudocysts must be considered in the differential diagnosis of intra-abdominal masses**.**

KEYWORDS: Pseudocyst, mesentery, small bowel, surgery, pathology.

INTRODUCTION

Mesenteric cysts are relatively rare lesions arising within the abdominal cavity. They originate from the mesentery or the surrounding area and have no linkage with retroperitoneal organs. Mesenteric cysts are usually located in the small bowel mesentery (50-80%) followed by the large bowel mesentery (15-30%).[1] Mesenteric pseudocysts (false cysts) are a variant of mesenteric cysts devoid of specific epithelial lining. Most of these lesions occur secondary to trauma or infection. Preoperative diagnosis of a mesenteric pseudocyst is usually difficult because of the lack of disease-specific signs.[2,3] Their diagnosis relies on histopathological examination. In this paper, we report a new case of mesenteric pseudocyst in the small bowel. Our aim was to describe the clinicopathological features of this rare entity.

CLINICAL HISTORY

A 40-year-old man with no particular past medical history, consulted for intermittent abdominal pain for the past four months. Physical examination found discreet abdominal tenderness with no palpable mass. Computed tomography scan showed a hypodense unilocular mesenteric cyst measuring 6 cm in diameter. The patient had an excision of the small intestine and cystic formation of the mesentery. Grossly, the small intestine measured 18 cm long with an associated thick-walled mesenteric cystic formation measuring 6 x 5.8 cm (Figure 1A). On cut section, the mesenteric cyst contained a white clayish material (Figure 1B). The small intestinal mucosa was normal. Histological examination of the samples taken from the cystic formation showed a fibrous and inflammatory cystic wall devoid of epithelial lining (Figure 2). It was focally lined by a fibrino-leukocytic coating. In the rest of the wall, there were hyperplastic lymphoid follicles. The final pathological diagnosis was that of a mesenteric pseudocyst. The postoperative course was uneventful and the patient was symptom free one month after surgery.

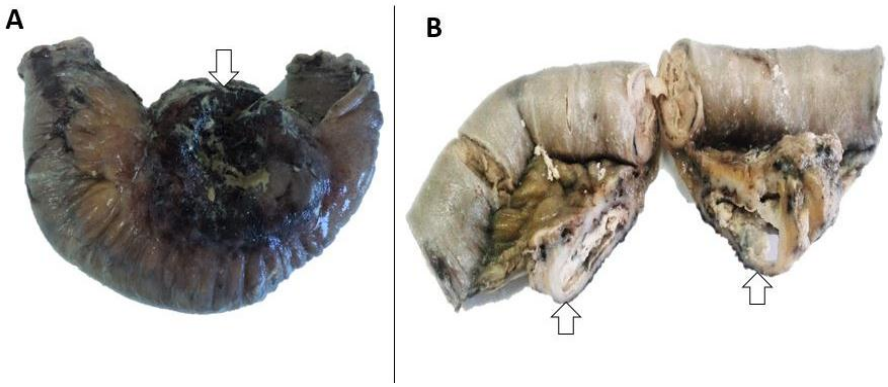

Figure 1: Macroscopic examination of the surgical specimen showing a thick-walled mesenteric cystic formation measuring 6 x 5.8 cm (arrow) (Figure 1A). On cut section, the mesenteric cystic formation contained a white clayish material (arrow) (Figure 1B).

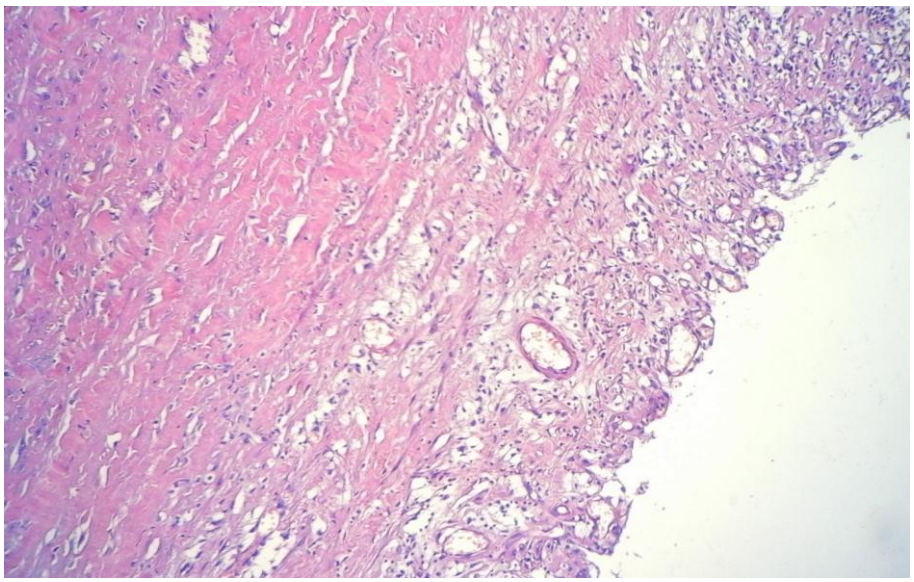

Figure 2: Histological examination of the surgical specimen showing an inflamed fibrous wall without an epithelial lining; (Hematoxylin and eosin, magnification × 200).

DISCUSSION

The incidence of mesenteric cysts is about one case per 100,000 hospital admissions.[4] They may occur at any age but are more common at ages 40-70 and can affect children younger than 10 years. The age of the patient described here, 40 years of age, coincides with ages reported in previous studies.[5] Regarding gender, there are reports showing male predominance, whereas, in the Western world, there is a female predominance.[6] Based on histopathological features, Perrot et al. established a new classification of mesenteric cysts, which includes: a) Cysts of lymphatic origin, (b) cysts of mesothelial origin, (c) cysts of enteric origin (enteric cyst and enteric duplication cyst), (d) cysts of urogenital origin, (e) mature cystic teratoma (dermoid cysts), and (f) pseudocysts.[7] Mesenteric pseudocysts can be located in the small bowel, large bowel mesentery and retroperitoneum. They are usually symptom free, detected incidentally while performing a physical examination or an imaging test.[8] Our patient was symptomatic as he presented with a four-month history of intermittent abdominal pain. The abdominal symptoms induced by mesenteric cysts include abdominal pain (55-82%), a palpable abdominal mass (44-61%), and abdominal distension secondary to intestinal process of occlusion (17-61%).[9,10] Symptoms of intermittent colicky pain, nausea, vomiting, constipation and diarrhea have been reported.[11] Acute cases are usually secondary to rupture, obstruction, hemorrhage into the cyst, or infection of abscess of the cyst. Etiologically, mesenteric pseudocysts can be of infectious or traumatic origin, with lymphatic or purulent fluid accumulating between the mesentery layers, causing ballooning. Our patient denied abdominal trauma or any symptoms of previous abdominal inflammatory diseases. Ultrasonography and CT scan are useful in the diagnosis of mesenteric cysts with the ability to distinguish between solid and cystic components. Contrast CT scan provides further information regarding relation to vascular structures.[12] One study showed the utility of chemical shift MRI in distinguishing the origin of the cyst by detecting its lipid content thereby further guiding treatment. On ultrasonography, pseudocysts are hypoechoic masses that

filled with echogenic debris. On CT scan, they are hypodense, and demonstrate no post contrast enhancement. Mesenteric pseudocysts are cystic masses devoid of an inner cellular lining. They are unrelated to pancreatitis. Generally, the size varies from few centimeters up to 10 cm, and they can be of greater size.[2] Pathologically, pseudocysts are thick-walled, usually septate cystic masses with either hemorrhagic or purulent contents.[2] Complete surgical resection with or without bowel resection is the treatment of choice of mesenteric pseudocysts. The intestinal resection is indicated if there is evidence that the blood supply of the intestinal segment where the cyst was resected is compromised. Some authors believe that laparoscopic resection is the preferred treatment for mesenteric cysts when the cysts are not huge in size.[13] Our patient underwent surgical resection of the mesenteric pseudocyst with the small bowel via laparotomy and postoperative course was uneventful. Prognosis of mesenteric pseudocysts is favorable as it was the case in our patient.

In conclusion, mesenteric pseudocysts are infrequent cystic lesions rarely included in the differential diagnosis of a patient presenting with abdominal pain. They are difficult to diagnose due to varied presentation and lack of specific clinical, laboratory and imaging findings. It is important to consider these lesions due to the morbidity if misdiagnosed or without proper management. Diagnosis of mesenteric pseudocysts can only be established by histopathological examination of the surgical specimen.

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