

Idiopathic giant hemorrhagic mesenteric pseudocyst presenting as an acute abdomen: A case report

Abdulaziz Abouhosa¹, Beril Kaptan¹, Rabia Seray Barlak¹, Ezgi Vural¹, Layan Ghunaim¹, Ufuk Utku Göktuğ², Tolga Müftüoğlu², Zeyneb Tatar³

¹ Bahçeşehir University School of Medicine,
Istanbul, Turkey

² Department of General Surgery, Medical Park
Göztepe Hospital, Istanbul, Turkey

ORCID of the author(s)

AA: <https://orcid.org/0000-0003-0682-488X>
BK: <https://orcid.org/0009-0004-7459-8188>
RSB: <https://orcid.org/0009-0006-8778-4785>
EV: <https://orcid.org/0009-0004-3572-2545>
LG: <https://orcid.org/0009-0001-0910-0302>
UUG: <https://orcid.org/0000-0002-9164-560X>
TM: <https://orcid.org/0000-0002-0040-4297>
ZT: <https://orcid.org/0000-0001-8369-2273>

Abstract

Mesenteric pseudocysts are rare intra-abdominal lesions that may present with nonspecific symptoms and pose diagnostic challenges. We report a 45-year-old woman who presented with abdominal pain, distension, and low-grade fever. Contrast-enhanced computed tomography (CT) revealed a large cystic lesion measuring approximately 27 × 20 cm and occupying a substantial portion of the abdominal cavity. The patient underwent laparoscopic surgical management. Because of the lesion's size, controlled decompression was performed to facilitate manipulation, followed by complete excision. Histopathological examination confirmed a hemorrhagic mesenteric pseudocyst without evidence of malignancy. The postoperative course was uneventful, and no recurrence was identified during follow-up. This case highlights the importance of considering mesenteric pseudocysts in the differential diagnosis of large intra-abdominal cystic lesions and demonstrates that even giant lesions can be managed laparoscopically in selected patients.

Keywords: mesenteric cyst, mesenteric pseudocyst, acute abdomen, laparoscopy, abdominal cysts

Introduction

Mesenteric cysts are rare intra-abdominal lesions that often present with nonspecific symptoms and may mimic other abdominal conditions, making diagnosis challenging [1, 2]. Mesenteric pseudocysts represent an uncommon subgroup and are generally distinguished from true cysts by the absence of an epithelial lining. Secondary pseudocysts have been associated with trauma, infection, or hemorrhage, although cases without an identifiable cause have also been reported [2-4]. Giant mesenteric cysts are particularly uncommon and may present with acute symptoms because of hemorrhage, infection, rapid enlargement, or mass effect [1, 3-5]. We present a case of an idiopathic giant hemorrhagic mesenteric pseudocyst presenting as an acute abdomen that was successfully managed laparoscopically without bowel resection.

Corresponding Author

Abdulaziz Abouhosa
Bahçeşehir University School of Medicine,
Istanbul, Turkey
E-mail: abdelaziz_hossa@yahoo.com

Informed Consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. Patient anonymity has been preserved.

Conflict of Interest

No conflict of interest was declared by the authors.

Financial Disclosure

The authors declared that this study has received no financial support.

Published

2026 August 13

Copyright © The Author(s)



This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0).
<https://creativecommons.org/licenses/by-nc-nd/4.0/>

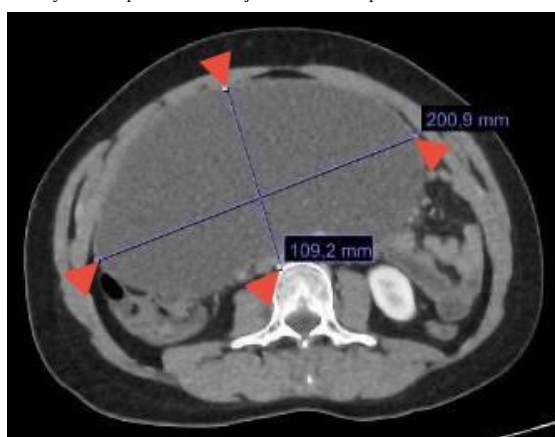


Case presentation

A 45-year-old woman presented with progressive abdominal distension accompanied by abdominal pain and low-grade fever. The symptoms had gradually worsened, prompting hospital admission. She had no significant medical or surgical history. On physical examination, the abdomen was distended, with a palpable mass occupying the central and lower abdominal regions. The mass was firm, mildly tender, and had limited mobility. There were no signs of peritoneal irritation, such as rebound tenderness or guarding. Laboratory investigations were largely within normal limits, with a C-reactive protein (CRP) level of 10 mg/L and an erythrocyte sedimentation rate (ESR) of 40 mm/h.

Contrast-enhanced CT revealed a large, well-defined cystic lesion occupying a substantial portion of the abdominal cavity and measuring approximately 27 × 20 cm, with internal heterogeneity suggestive of hemorrhagic content (Figures 1 and 2). The lesion exerted mass effect on adjacent bowel loops without clear evidence of invasion. Based on these findings, laparoscopic surgical intervention was planned.

Figure 1. Contrast-enhanced axial CT demonstrating a large cystic lesion occupying the abdominal cavity with displacement of adjacent bowel loops.



Abbreviations: CT: computed tomography.

Figure 2. Coronal CT view showing the craniocaudal extent of the cystic lesion, extending from the upper abdomen to the pelvis.



Abbreviations: CT: computed tomography.

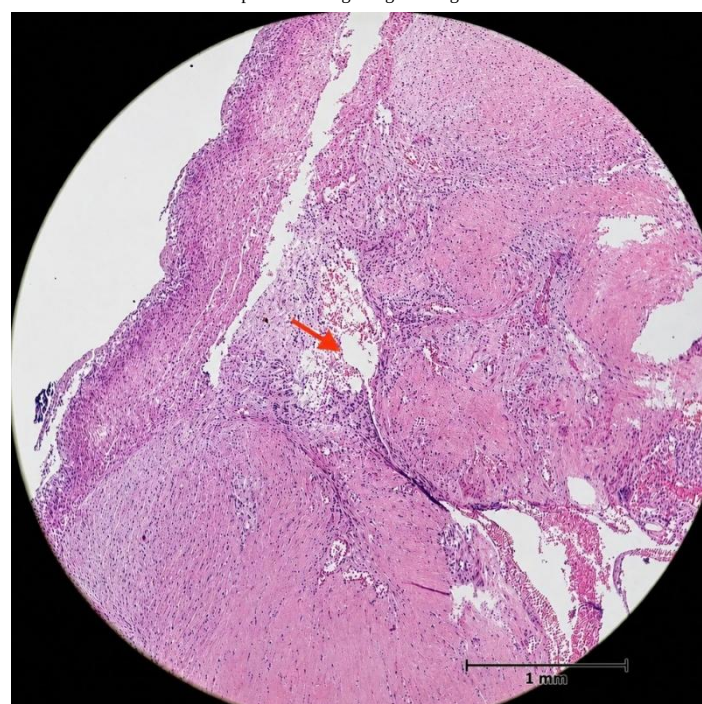
Intraoperatively, a large cystic mass occupying the abdominal cavity was identified. Because of its size, controlled decompression was performed to facilitate safe manipulation. After aspiration of the cyst contents, careful dissection revealed a well-defined plane between the cyst and the surrounding structures. Complete excision was achieved without unintended rupture or the need for bowel resection, as no involvement of adjacent bowel or mesenteric vessels was identified. The resected specimen was submitted for histopathological examination. Gross evaluation confirmed a large cystic lesion consistent with the intraoperative findings, while microscopic examination demonstrated a hemorrhagic mesenteric pseudocyst with no evidence of malignancy (Figures 3 and 4). The postoperative course was uneventful, and the patient was discharged in stable condition. At 1 month of postoperative follow-up, no evidence of recurrence or complications was observed.

Figure 3. Histopathological image (H&E) showing a fibrotic cyst wall with hemorrhage and vascular congestion. Original magnification ×100.



Abbreviations: H&E: hematoxylin and eosin.

Figure 4. Histopathological image (H&E) demonstrating fibrotic tissue with inflammatory infiltration and absence of an epithelial lining. Original magnification ×40.



Abbreviations: H&E: hematoxylin and eosin.

Discussion

Mesenteric cysts are rare clinical entities, and mesenteric pseudocysts represent an uncommon subgroup [1, 2]. Histopathological classification distinguishes pseudocysts from cysts of lymphatic, mesothelial, enteric, urogenital, and other origins [2]. Secondary pseudocysts have been associated with trauma, infection, or hemorrhage [2, 4]. The present lesion was considered idiopathic because the patient had no relevant medical or surgical history and no precipitating cause was identified.

The size and location of mesenteric cysts are highly variable. Large lesions can cause marked mass effect and may present with abdominal pain, distension, or an acute abdominal picture [1, 3]. In the present case, despite the lesion's size, adjacent bowel and major mesenteric vessels were not involved. A clear dissection plane therefore allowed complete excision without bowel resection. This is clinically relevant because complete excision is the preferred treatment, while resection of adjacent bowel may be required when the lesion is inseparable from surrounding structures [1, 3].

The differential diagnosis of a large intra-abdominal cystic lesion includes ovarian, pancreatic, retroperitoneal, and mesenteric lesions. In this patient, imaging defined the lesion's extent and relationship to surrounding structures, whereas the definitive diagnosis was established by histopathological examination.

Laparoscopic excision has been reported as feasible in selected patients with mesenteric cysts [3, 5]. In the present case, controlled decompression facilitated laparoscopic handling and was followed by complete excision without bowel resection. These findings support a minimally invasive approach in carefully selected patients when a safe dissection plane is present and the lesion can be removed without compromising adjacent bowel or mesenteric vessels [5].

Mesenteric pseudocysts should therefore remain in the differential diagnosis of large intra-abdominal cystic masses. This case also illustrates that giant lesions may be managed laparoscopically when the anatomy and surgical expertise permit.

References

1. Kurtz RJ, Heimann TM, Holt J, Beck AR. Mesenteric and retroperitoneal cysts. *Ann Surg.* 1986;203(1):109-12. doi: 10.1097/0000658-198601000-00017.
2. de Perrot M, Bründler M, Tötsch M, Mentha G, Morel P. Mesenteric cysts. Toward less confusion? *Dig Surg.* 2000;17(4):323-8. doi: 10.1159/000018872.
3. Tan JJ, Tan KK, Chew SP. Mesenteric cysts: an institution experience over 14 years and review of literature. *World J Surg.* 2009;33(9):1961-5. doi: 10.1007/s00268-009-0133-0.
4. Falidas E, Mathioulakis S, Vlachos K, Pavlakis E, Anyfantakis G, Villias C. Traumatic mesenteric cyst after blunt abdominal trauma. *Int J Surg Case Rep.* 2011;2(6):159-62. doi: 10.1016/j.ijscr.2011.03.006.
5. Bhandarwar AH, Tayade MB, Borisa AD, Kasat GV. Laparoscopic excision of mesenteric cyst of sigmoid mesocolon. *J Minim Access Surg.* 2013;9(1):37-9. doi: 10.4103/0972-9941.107138.

Disclaimer/Publisher's Note: The statements, opinions, and data presented in publications in the Journal of Surgery and Medicine (JOSAM) are exclusively those of the individual author(s) and contributor(s) and do not necessarily reflect the views of JOSAM, the publisher, or the editor(s). JOSAM, the publisher, and the editor(s) disclaim any liability for any harm to individuals or damage to property that may arise from implementing any ideas, methods, instructions, or products referenced within the content. Authors are responsible for all content in their article(s), including the accuracy of facts, statements, and citations. Authors are responsible for obtaining permission from the previous publisher or copyright holder if re-using any part of a paper (e.g., figures) published elsewhere. The publisher, editors, and their respective employees are not responsible or liable for the use of any potentially inaccurate or misleading data, opinions, or information contained within the articles on the journal's website.