

A rare diagnosis of abdominal pain presentation in the emergency department: Idiopathic omental bleeding

A case report

Yen-Hung Wu, MD^a, Kuan-Ting Liu, MD^{a,b}, Chun-Kai Wen, MD^{a,*}

Abstract

Rationale: Idiopathic omental bleeding is a rare cause of acute abdomen, with only a few reported cases. It usually presents with abdominal pain and may be life-threatening. As it rarely occurs, it may not be considered initially during patient presentation.

Patient concerns: A 35-year-old male came to our emergency department with abdominal pain present for around 5 to 6 hours. The patient complained of left upper quadrant abdominal pain after eating breakfast. The only associated symptom was 3 episodes of vomiting up food. Physical examination revealed mild left upper quadrant abdominal tenderness without muscle guarding or rebounding pain. Blood examination showed leukocytosis with neutrophil predominance and C reactive protein elevation. The pain was persistent and relief was not obtained by medication.

Diagnoses: Computed tomography showed a large lobular-contour homogenous slightly hyperdense lesion without enhancement along the greater curvature of the stomach in the lesser sac. A surgeon was consulted and laparotomy was suggested. Hematoma was found at Morrison pouch, subsplenic fossa, and lesser sac under operation.

Intervention: Laparotomy and ligation for hemostasis.

Outcomes: The patient was discharged with stable condition after 7 days of hospitalization.

Lessons: This diagnosis should be considered in patients presenting with epigastric pain and vomiting after eating while in the emergency department because this disease might be life-threatening. This case highlights 2 important learning points. First, idiopathic omental bleeding could occur after eating in patients without underlying disease or trauma history, and this disease should be taken into consideration when acute abdomen occurs. Second, emergent laparotomy is indicated if the cause of acute abdomen is not clear.

Keywords: abdominal pain, acute abdomen, idiopathic omental bleeding

1. Introduction

Idiopathic omental bleeding is a rare cause of acute abdomen, with only a few reported cases.^[1–4] It usually presents with abdominal pain and may be life-threatening. As it rarely occurs, it may not be considered initially during patient presentation. Here, we report a case visiting the emergency department because of abdominal pain after eating breakfast, and idiopathic omental bleeding was diagnosed. After, we contacted the regulations of institutional review board of the Kaohsiung Medical University

Editor: N/A.

The authors have no funding and conflicts of interest to disclose.

^a Department of Emergency Medicine, Kaohsiung Medical University Hospital,

^b School of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan.

* Correspondence: Chun-Kai Wen, Department of Emergency Medicine, Kaohsiung Medical University Hospital, Kaohsiung Medical University, No.100, Tzyou 1st Road, Kaohsiung 807, Taiwan (e-mail: chunkaiwen@gmail.com).

Copyright © 2017 the Author(s). Published by Wolters Kluwer Health, Inc. This is an open access article distributed under the Creative Commons Attribution License 4.0 (CCBY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Medicine (2017) 96:51(e9463)

Received: 20 November 2017 / Received in final form: 1 December 2017 /

Accepted: 6 December 2017

<http://dx.doi.org/10.1097/MD.00000000000009463>

Hospital, there was no need for ethical approval for this case report article. Informed consent was obtained from the patient.

2. Case presentation

A 35-year-old male without any systemic disease and denying any medication use came to our emergency department with abdominal pain present for around 5 to 6 hours. When he arrived at emergency department, his consciousness was clear and vital signs showed body temperature 36.9° Celsius, blood pressure 112/73 mmHg, with heart beat 102 per minute. The patient complained of left upper quadrant abdominal pain after eating breakfast. The only associated symptom was 3 episodes of vomiting up food. Physical examination revealed mild left upper quadrant abdominal tenderness without muscle guarding or rebounding pain. Blood examination showed leukocytosis (white blood cell: 15,980/ μ L with neutrophil predominance) and C reactive protein 5.59 mg/L, with normal renal and liver function. The pain was persistent and relief was not obtained by medication, then computed tomography was done, which showed a large lobular-contour homogenous slightly hyperdense lesion without enhancement along the greater curvature of the stomach in the lesser sac (Fig. 1A and B). A surgeon was consulted and laparotomy was suggested. Hematoma was found at Morrison pouch, subsplenic fossa, and lesser sac under operation, and 1000 mL bloody ascites were removed by suction,

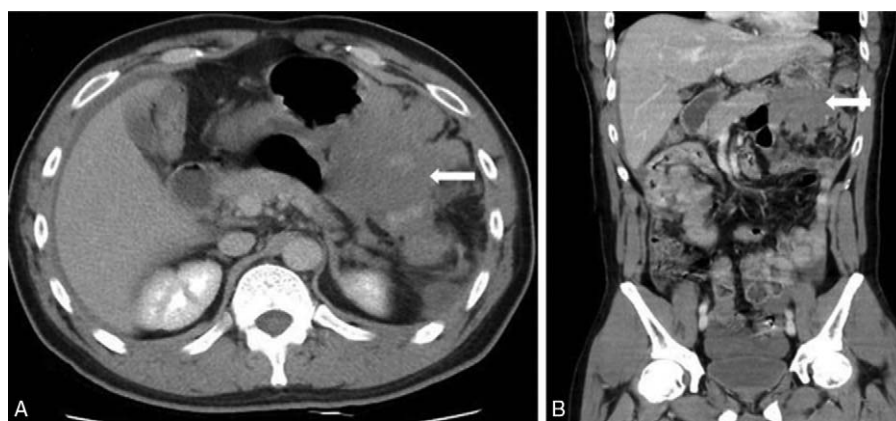


Figure 1. (A) Transverse view and (B) axial view of abdominal computed tomography with enhancement showed a large lobular-contour homogenous slightly hyperdense lesion without enhancement along the greater curvature of stomach in the lesser sac.

no obvious tumor lesion was found, bleeding from lesser omentum near spleen hilar was impressed, so ligation for hemostasis was performed. After the operation, the patient was discharged with stable condition after 7 days of hospitalization.

3. Discussion

Omental bleeding results from rupture of omental vessels, and it could be caused by tumor,^[1] trauma, aneurysm,^[2–3] coagulopathy,^[4] or vasculitis.^[5] Idiopathic omental bleeding is a rare cause. Omental bleeding often presents as abdominal pain, especially over the epigastric area, and is accompanied with nausea, vomiting, diarrhea, or even unstable hemodynamics. Some patients suffer just after a meal; the reason could be due to increased visceral blood flow after ingesting food.^[6] A larger meal increases the visceral blood flow and results in vessel rupture. The management of omental bleeding includes laparotomy or laparoscopy with omentectomy or simple vessel ligation, and transcatheter arterial embolization.^[7–9] In recent years, more minimally invasive surgery has been used such as transcatheter arterial embolization or laparoscopy.

In this case, the patient presented with symptoms of epigastric pain and vomiting after eating breakfast. No comorbidity was known before, and no trauma history or coagulopathy was noted. Emergent laparotomy was done instead of laparoscopy or transcatheter arterial embolization under the impression of massive intraperitoneal hemorrhage, with cause to be determined. Pathological examination of specimen revealed hemorrhage and showed no evidence of vasculitis, thrombosis, or malignancy. Idiopathic omental bleeding was thus diagnosed. In a review of the literature, idiopathic omental bleeding occurs more frequently in Japan than in other countries, and the occurrence of idiopathic omental bleeding ranges from young to old patients.^[10] Men are likely to suffer more than women from this condition.^[7–8,11–15] The reasons why there are more Japanese patients and why men are more likely than women to experience this condition are still unknown.

In conclusion, idiopathic omentum hemorrhage is a rare cause of acute abdomen which sometimes occurs after eating, while laparotomy with ligation and transcatheter artery embolization can be used to rule out malignancy and aneurysm. This diagnosis should be considered in patients presenting with epigastric pain and vomiting after eating while in the emergency department

because this disease might be life-threatening. This case highlights 2 important learning points. First, idiopathic omental bleeding could occur after eating in patients without underlying disease or trauma history, and this disease should be taken into consideration when acute abdomen occurs. Second, emergent laparotomy is indicated if the cause of acute abdomen is not clear.

References

- [1] Dixon AY, Reed JS, Dow N, et al. Primary omental leiomyosarcoma masquerading as hemorrhagic ascites. *Hum Pathol* 1984;15:233–7.
- [2] Borioni R, Garofalo M, Innocenti P, et al. Hemoperitoneum due to spontaneous rupture of an aneurysm of the left gastroepiploic artery. *J Cardiovasc Surg* 1999;40:63–4.
- [3] Bettini N, Goueffic Y, Marret O, et al. Hemoperitoneum due to rupture of an omental arterial aneurysm. *J Chir* 2007;144:544–5.
- [4] Cheng VE, Oppermen A, Natarajan D, et al. Spontaneous omental bleeding in the setting of dual anti-platelet therapy with ticagrelor. *Heart Lung Circ* 2014;23:e115–7.
- [5] Kroot EJ, Mak CL, Boelhouwer RU, et al. Involvement of the omentum in Wegener's granulomatosis. *Ann Rheum Dis* 2003;62:1238–9.
- [6] Nagata HOT, Murase N, Kime R, et al. Determining effect of food intake on comprehensive abdominal-pelvic visceral blood flow by Doppler ultrasound. *J Tokyo Med Univ* 2015;73:35–44.
- [7] Matsumoto T, Yamagami T, Morishita H, et al. Transcatheter arterial embolization for spontaneous rupture of the omental artery. *Cardiovasc Intervent Radiol* 2011;34:S142–5.
- [8] Tsuchiya R, Takahashi S, Takaoka T, et al. A case of idiopathic omental bleeding treated successfully with transarterial embolization. *Jpn J Gastroenterol* 2009;106:554–9.
- [9] Takahashi M, Matsuoka Y, Yasutake T, et al. Spontaneous rupture of the omental artery treated by transcatheter arterial embolization. *Case Rep Radiol* 2012;2012:273027.
- [10] Kimura J, Okumura K, Katagiri H, et al. Idiopathic omental hemorrhage: a case report and review of the literature. *Int J Surg Case Rep* 2016;28:214–8.
- [11] Takahashi H, Adachi Y, Kasahara Y, et al. Case reports two cases of spontaneous omental hematoma. *Acta Med Kinki Univ* 1996;21:255–61.
- [12] Ghiatas AA, Fisher R. CT of spontaneous haematoma of the omentum. *Eur Radiol* 1994;4:474–5.
- [13] Hosokawa H, Tanemura H, Sato M. A case of a ruptured left gastroepiploic artery aneurysm, diagnosed on mdct angiography and treated by transcatheter arterial embolization. *J Jpn Pract Surg Soc* 2009;70:2844–8.
- [14] Yasuoka R, Nishino S, Ogino S, et al. A case of the greater omental hemorrhage due to segmental arterial mediolysis. *Jpn J Gastroenterol Surg* 2008;41:46–51.
- [15] Ishii HYT, Hosokawa A, Kitagawa NA. Case of idiopathic omentum bleeding. *J Mitoyo Gen Hosp* 2006;27:86–8.