

Intraabdominal Hemorrhage from Torn Short Gastric Vessels by Excessive Vomiting from Tramadol

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ABSTRACT

Herein, we present a 24-year-old healthy male who presented to the emergency department with acute abdomen and generalized peritonism caused by intraabdominal bleeding after excessive vomiting and dry retching after a single dose of 50 mg of tramadol for musculoskeletal back pain. The bleeding proved to be from the short gastric vessels as a result of tear in the gastrosplenic ligament caused by the excessive vomiting.

Key words: Laparotomy, Vomiting, Short gastric vessels, Emergency surgery

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ÖZET

Tramadol Kullanımı Nedeniyle Aşırı Kusma Sonucu Yırtılan Kısa Gastrik Arterlerden Kaynaklı İntraabdominal Kanama

Bu yazıda, sırt ağrısı için 50 mg tek doz tramadol kullanımı sonrasında aşırı kusma ve kuru bir öğürme sonucunda meydana gelen intraabdominal kanamanın neden olduğu akut karın ve jeneralize peritonit bulguları nedeniyle acil servise başvuran 24 yaşındaki sağlıklı bir erkek hastayı sunduk. Kanamanın aşırı kusma sonucu, gastrosplenik ligamanın yırtılmasına bağlı kısa gastrik arterlerden olduğu kanıtlandı.

Anahtar kelimeler: Laparotomi, Kusma, Kısa gastrik arterler, Acil cerrahi

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INTRODUCTION

Excessive vomiting can lead to upper gastrointestinal bleeding from a tear of the mucosa above the gastroesophageal ligament (Mallory-Weiss); it is also known to cause rupture of the lower part of the esophagus (Boerhaave's syndrome)^[1,2].

Intraabdominal hemorrhage is seen in trauma, ruptured visceral aneurysms, ruptured tumors and hematologic disorders. This patient had intraperitoneal bleeding from torn short gastric vessels due to excessive vomiting.

CASE REPORT

This male patient presented to the emergency department with lower back pain for a few days and reported some heavy lifting at work, but there was no history of injury. Lumbosacral X-rays were performed, which revealed no abnormality. He had no alcohol or drug history and was not using any medications. He underwent a computerized tomography (CT) scan for his spine due to the extent of the pain, which raised the possibility of spinal epidural abscess. The CT scan showed no abnormality; he had no abdominal complaint at this point. The diagnosis of muscular strain was made, and he was discharged on paracetamol and given a single dose of tramadol 50 mg orally. Once at home, he experienced nausea, which was followed by several episodes of excessive and violent vomiting, and then by a few episodes of dry retching.

During one episode of vomiting, he sustained a sudden attack of epigastric pain, which gradually worsened, and after one hour, the pain became generalized. He presented to the emergency department again with severe abdominal pain. On examination, he was hemodynamically stable, and his temperature was 36.9°C, heart rate 78 bpm, and blood pressure 130/70 mmHg. His abdomen was rigid and tender with generalized guarding. Plain abdominal X-ray and chest X-ray showed no free air, and no abnormality was seen; his white cell count was $17 \times 10^9/L$, hemoglobin was 130 g/L, and lipase, amylase and electrolytes were normal. A CT scan was arranged with intravenous contrast, which showed a large amount of free fluid in the peritoneal cavity with no free air; the vascular anatomy including the visceral arteries showed no abnormality.

A surgical review was performed, and he was taken to the operating theater; the initial differential diagnosis was a perforated peptic duodenal ulcer or intraabdominal rupture of the esophagus due to the excessive vomiting.

Laparotomy was performed via a midline incision, which revealed 1600 mL of blood and 300 mL of clot. After packing of the abdomen in four quadrants and evacuation of the blood, the liver and spleen were seen to be normal. A hematoma was seen in the gastrosplenic ligament of the greater omentum, and further exploration of the lesser sac showed a torn uppermost part of the gastrosplenic ligament and bleeding from the uppermost short gastric vessels, which was controlled by ligatures. The possibility of ruptured esophagus was taken into consideration further because the hematoma extended into the phrenoesophageal and phrenogastric ligaments; thorough exploration of the esophagus showed no evidence of tear. The splenic vessels were explored to exclude a splenic artery aneurysm, but there was no abnormality. In the postoperative period, a CT angiogram of the abdomen was arranged to rule out any missed visceral aneurysm, and it showed a normal visceral arterial anatomy with no aneurysms.

The patient recovered well and was tolerating oral fluids after 24 hours. He was discharged home after four days with no complications, and advised to avoid the use of tramadol again.

DISCUSSION

To our knowledge, this is the first case of intraabdominal bleeding caused by excessive vomiting due to tramadol administration. There have been five previous case reports of a similar tear due to vomiting from other causes^[3-5]. The patient clearly needed a laparotomy due to the definite evidence of acute intraabdominal pathology based on the clinical examination and the finding of a large amount of fluid in the peritoneal cavity on the CT scan. The diagnosis was a suspected perforated ulcer; however, there was an unusual presentation due to the fact that he was afebrile, and the abdominal pain had been precipitated by excessive vomiting.

Intraabdominal rupture of the esophagus was a possibility, but there was no free air on imaging. Exploration of the esophagus confirmed it was intact. Five cases of torn short gastric vessels caused by vomiting have been reported in the literature.

In conclusion, in patients who present with acute abdominal pain after vomiting, the differential diagnosis should include the possibility of tear of the short gastric vessels in addition to Mallory-Weiss tear and Boerhaave's syndrome.

REFERENCES

1. Kaplan JL, Hausmann MG. Hemoperitoneum secondary to avulsed short gastric arteries after vomiting: the first documented case in North America. *Curr Surg* 2005; 62: 57-8.
2. Hayes N, Waterworth PD, Griffin SM. Avulsion of short gastric arteries caused by vomiting. *Gut* 1994; 35: 1137-8.
3. Hight DW, Philippart AI. Ruptured short gastric vein associated with protracted vomiting. *Arch Surg* 1970; 100: 321-2.
4. Ho MP, Chang CJ, Huang CY, Yu CJ, Tsai KC, Chen HA, et al. Spontaneous rupture of the short gastric artery after vomiting. *Am J Emerg Med* 2012; 30: 513.
5. Piccagliani L, D'Arienzo M, Manco G, Luppi D, Rossi A. Haemoperitoneum secondary to avulsed short gastric arteries after vomiting]. *Chir Ital* 2009; 61: 237-40.

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