

## CASE IMAGE

# Acute organoaxial gastric volvulus—A dangerous twist

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**Abstract**

Acute gastric volvulus is a rare yet life-threatening condition with mortality ranging from 30% to 50% if not treated promptly. The stomach rotates on itself causing strangulation precipitating necrosis, Cameron lesions, and perforation. Long-standing paraesophageal hernia is a common cause of organoaxial gastric volvulus.

**KEYWORDS**

acute gastric volvulus, organoaxial volvulus, paraesophageal hernia

## 1 | CASE HISTORY

Acute gastric volvulus is a rare yet life-threatening condition with mortality ranging from 30% to 50% if not treated promptly. The stomach rotates on itself causing strangulation (Figure 1) precipitating necrosis, Cameron lesions, and perforation.<sup>1</sup> Long-standing paraesophageal hernia is a common cause of organoaxial gastric volvulus.<sup>2</sup>

### 1.1 | Questions

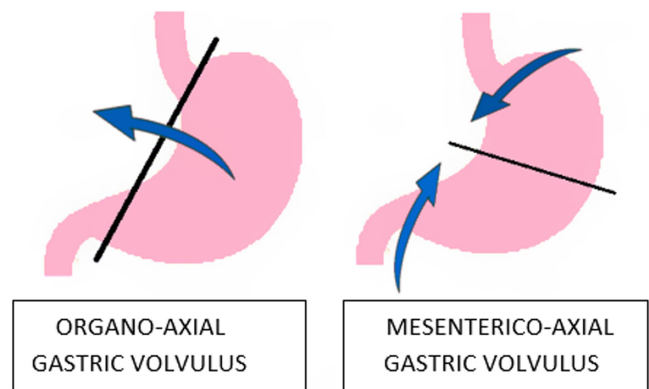
Which complication is an important indication for emergent surgery in long-standing paraesophageal hernia?

### 1.2 | Answer

We present a case of paraesophageal hernia complicated with organoaxial volvulus.

A 75-year-old man with medical history significant for atrial fibrillation on warfarin, recent endovascular abdominal aortic artery aneurysm repair, and long-standing

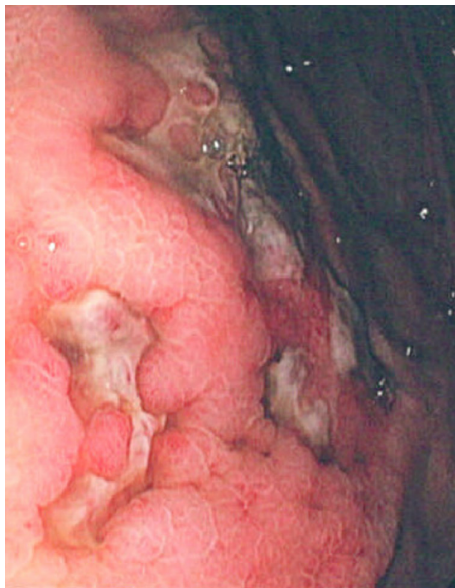
paraesophageal hernia presented with progressive worsening abdominal pain associated with coffee-ground emesis of one-week duration. Physical examination was remarkable for epigastric tenderness without guarding or rigidity. Laboratory workup revealed hemoglobin 13.7 g/dl, and prothrombin time (PT)/international normalized ratio (INR) 72 s/9.51. Emergent computed tomography angiography (CTA) for concerns of aortic pathology



**FIGURE 1** Schematic representation to understand the orientation of types of gastric volvulus



**FIGURE 2** Computed tomography angiography showing the entire stomach in the posterior mediastinum and the blue arrowhead pointing to the extraluminal air suggestive of perforation



**FIGURE 3** Esophagogastroduodenoscopy (EGD) showing multiple deep ulcerations in the body of the stomach

carried out demonstrated organoaxial volvulus with the entire stomach in the posterior mediastinum and small contained duodenal perforation (Figure 2). Given the acuity of the severe gastric distension and hemodynamic instability, nasogastric tube was placed after multiple failed attempts for immediate gastric decompression with simultaneous reversal of PT/INR with vitamin K and fresh

frozen plasma along with packed red blood cell transfusion. A significant drop in hemoglobin to 7.7 g/dl was noted in the first 24 h. Repeat CT illustrated reduction in stomach distention. Esophagogastroduodenoscopy (EGD) revealed a tortuous esophagus with multiple large ulcerations in the body of the stomach and esophagus (Figure 3), with no active bleeding. The patient later underwent laparoscopic transabdominal repair as definitive treatment.

#### ACKNOWLEDGMENTS

None.

#### CONFLICT OF INTEREST

None.

#### AUTHOR CONTRIBUTIONS

Justine Chinnappan and Murtaza Hussain involved in acquisition, and drafted and reviewed the manuscript. Smit S. Deliwala conceptualized and designed the manuscript. Ghassan Bachuwa reviewed the manuscript.

#### CONSENT

Published with appropriate informed written consent from the patient.

#### DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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