Endoscopic view in a patient with acute gastric volvulus

A 52-year old man with recurrent vomiting was referred for upper gastrointestinal endoscopy. During endoscopy, superficial erosions were found on the upper part and obstruction in the middle part of the stomach (● Fig. 1 and ● Fig. 2). The stomach was rotated around an axis connecting the gastroesophageal junction and the pylorus. The antrum was rotated anterosuperiorly and the fundus rotates posteroinferiorly. Strangulation of the stomach is relatively common in this type of volvulus (up to 30% of cases) [3]. In mesenteroaxial volvulus, the stomach rotates around its short axis through a perpendicular line connecting the greater and lesser curvatures, and the antrum becomes displaced above the gastroesophageal junction. In another, complex form of gastric volvulus, elements of organoaxial and mesenteroaxial rotation are combined [4]. The combination of pain, vomiting, and the inability to pass a nasogastric tube, known as Borchardt's triad, is present in as many as 70% of patients with acute gastric volvulus [5]. Imaging studies, including computed tomography of the abdomen or chest and an upper gastrointestinal series, may be used for the diagnosis [4]. Endoscopy is unreliable for the diagnosis of gastric volvulus (failure rate of approximately 68%) but can be used for the differentiation of other clinical possibilities and decompression. Acute gastric volvulus is a surgical emergency and is associated with a 30% to 50% mortality rate when the diagnosis is missed [4].

mesenteroaxial according to the axis of rotation, and as acute or chronic depending on the clinical presentation [2]. In organoaxial volvulus, the stomach rotates along its long axis through a line that connects the gastroesophageal junction to the pylorus. The antrum rotates anterosuperiorly and the fundus rotates posteroinferiorly. Strangulation of the stomach is relatively common in this type of volvulus (up to 30% of cases) [3]. In mesenteroaxial volvulus, the stomach rotates around its short axis through a perpendicular line connecting the greater and lesser curvatures, and the antrum becomes displaced above the gastroesophageal junction. In another, complex form of gastric volvulus, elements of organoaxial and mesenteroaxial rotation are combined [4]. The combination of pain, vomiting, and the inability to pass a nasogastric tube, known as Borchardt's triad, is present in as many as 70% of patients with acute gastric volvulus [5]. Imaging studies, including computed tomography of the abdomen or chest and an upper gastrointestinal series, may be used for the diagnosis [4]. Endoscopy is unreliable for the diagnosis of gastric volvulus (failure rate of approximately 68%) but can be used for the differentiation of other clinical possibilities and decompression. Acute gastric volvulus is a surgical emergency and is associated with a 30% to 50% mortality rate when the diagnosis is missed [4].

Endoscopy_UCTN_Code_CCL_1AB_2AD_3AF

Competing interests: None

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Fig. 1 Organoaxial gastric volvulus with 180 degrees of rotation and stenosis in the middle part of the stomach of a 52-year-old man with recurrent vomiting.

Fig. 2 Superficial erosions on the body due to chronic ischemia.

Fig. 3 Diaphragmatic defects are the most common cause of gastric volvulus in adults.

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DOI <http://dx.doi.org/10.1055/s-0034-1392501>
Endoscopy 2015; 47: E379–E380
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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