Case Authors (702) Acute gastric volvulus: a rare case of a gastric emergency M. Blanco Guindel, N. Sordo Alonso, D. García Pérez, H. Cigarrán Sexto, J. Calvo Blanco, P. Quintana Martínez.

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CASE PRESENTATION

A 75 year-old female came to the emergency department with acute epigastric pain and vomiting. On examination, tenderness in the epigastric area and reduced bowel sounds. Laboratory test results leukocytosis and high PCR. Chest X-ray showed a rounded morphology imagen with fluid level in a retrocardiac position.

Thoracoabdominal CT with intravenous contrast was performed, revealing large hiatal hernia that includes the stomach, pancreas body and splenic, gastric and pancreaticoduodenal arteries. Also the greater curvature located superior to the lesser curvature (organo-axial rotation).

The extraluminal air and free perigatric and peripancreatic fluid that suggest complication like perforation.

DISCUSSION

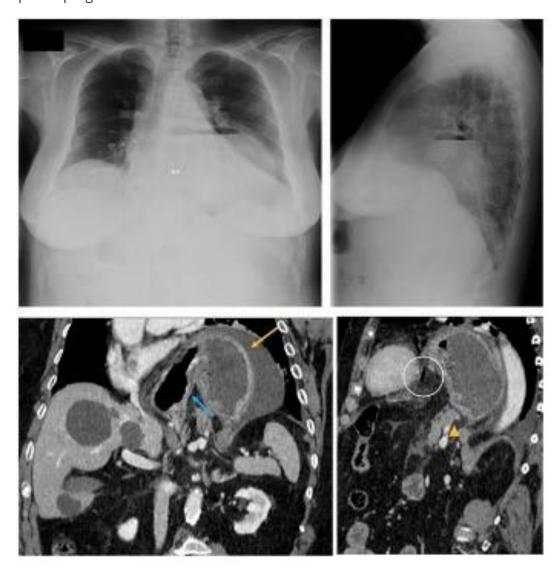
: Gastric volvulus in an abnormal rotation of the stomach by more than a 180 degrees resulting in gastric outlet obstruction and can result complications like ischemia or perforation. Although the etiology of this pathology is unclear there are some predisponing factors such as laxity or disruption of the gastric ligaments, diaphragmatic defects or eventrations, gastric hernias and asplenia. Patients with acute gastric volvulus used to present Borchardt's triad of severe epigastric pain and distension, vomiting and uproductive retching and inability to pass a nasogatric tube.

Gatric volvulus is divided into two subtypes, organo-axial and mesentero-axial. In the organo-axial volvulus the stomach rotates around the longitudinal axis of the stomach, the antrum goes anterosuperior and the fundus rotates posteroinferiorly resulting superior the greater curvature to the lesser curvature. In mesentero-axial the stomach rotates around its short axis and the antrum moves above the gastroesophageal junction.

Organo-axial volvulus is the most common type (2/3 of cases) and is associated with diaphragmatic defects or hiatal hernia, specially type III with sliding and paraesophageal components. This type can associate compromise of the gastric blood suply and secondary develop gastric necrosis and gangrene.

CT can confirm the diagnosis thanks to the findings like hiatal hernia, abnormal rotation of the stomach which is usually distended and fluid filled, take notice of the wall enhancement, extraluminal air o free fluid.

Gastric volvulus is a rare medical emergency, it is important to be familiar with the CT findings and differenciate between rotation and stomach volvulus because of their disparate prognosis.



(A, B) X-Ray chest: rounded morphology image with fluid level. No silhouette sign in PA projection, and a retrocardiac position in lateral projection, regarding to large hiatal hernia. (C) Coronal reconstruction CT: large hiatal hernia including the stomach with the greater curvature (blue arrow) located superior to the lesser curvature (yellow arrow) and free fluid on the hiatal hernia.
(D) Sagittal reconstruction CT: extraluminal air (circle) and free fluid suggest perforation. Pancreas and splenic vessels (arrowhead) through the hiatal hernia.

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