Case Report / *Olgu Sunumu*

Ege Journal of Medicine / *Ege Tıp Dergisi* 2020; 59 (2): 147-148

# Mesenteroaxial gastric volvulus: CT findings

## *Mezenteroaksiyal gastrik volvulus: BT bulguları*

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**Abstract**

*A 65-year-old female patient presented with complaints of abdominal pain, nausea, vomiting, constipation, and inability to perform defecation. The patient complained of abdominal pain and constipation for several days, and these symptoms were exacerbated, nausea and vomiting were added to these complaints on the day of admission. Physical examination revealed that abdominal guarding and tenderness, mainly located in the epigastric region. The patient had a history of previous total knee replacement surgery and ischemic stroke but had no history of trauma or abdominal surgery.*

**Keywords:** Gastric volvulus, stomach, computed tomography.

***Öz***

*Gastrik volvulus, üst gastrointestinal sistemin kapalı-loop (döngü) obstrüksiyonu olup erken tanı ve tedavi büyük öneme sahiptir. Tedavide gecikilmesi durumunda mide duvarlarında iskemi, nekroz ve perforasyona yol açabilen ve hayati öneme sahip klinik bir durumdur. Mide volvulusunun dönme eksenine bağlı olarak organoaksiyel ve mezenteroaksiyel formları mevcuttur. Mezenteroaksiyel volvulusta, küçük ila büyük kurvaturu bağlayan kısa eksen boyunca mide rotasyonu gözlenir ve antrum ve pilor gastroözofageal bileşkenin üzerinde yer değiştirir. Spesifik olmayan semptomlar nedeniyle bilgisayarlı tomografi (BT) tanıda kritik bir role sahiptir.*

***Anahtar Sözcükler:*** *Gastrik volvulus, mide, bilgisayarlı tomografi.*

Gastric volvulus is a closed-loop obstruction of the upper gastrointestinal tract and a life-threatening clinical condition that can lead to ischemia, necrosis, and perforation if not diagnosed and treated urgently (1-3). In the mesenteroaxial volvulus, short - axis rotation of the stomach, which connects the small to large curvature, is observed, and the antrum and pylorus are displaced above the gastroesophageal junction. It is known that the risk of ischemia is high in mesenteroaxial volvulus (1-3). Although it is an infrequent clinical entity with nonspecific symptoms, CT has a critical role in the diagnosis and superiorly displaced gastroduodenal artery into mediastinum on CT angiography can be used as a sign of mesenteroaxial gastric volvulus.

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Application date: 25.02.2020 Accepted: 10.04.2020

## Case

Herein we report abdominal CT and CT angiography findings of mesenteroaxial gastric volvulus in a 65-year-old female patient. The patient complained of worsening abdominal pain and constipation for several days and inability to perform defecation. Nausea and vomiting were added to these complaints on the day of admission. Physical examination revealed abdominal guarding and tenderness, mainly located in the epigastric region. Laboratory test results were unremarkable. Abdominal CT angiography was performed with the preliminary diagnosis of mesenteric ischemia. Abdominal CT angiography revealed rotation of the stomach around the short axis from the lesser to greater curvature, displacement of the antrum (A), and pylorus (P) above the gastroesophageal junction (dashed arrows), compatible with mesenteroaxial gastric volvulus (Figure-1A, B and C). Three-dimensional volume rendering CT image also showed superior displacement of the gastroduodenal artery (arrows) (Figure-1D). Immediate surgical gastric decompression, gastropexy, and diaphragmatic defect repair were performed. The patient was discharged four days after the operation without any complication.

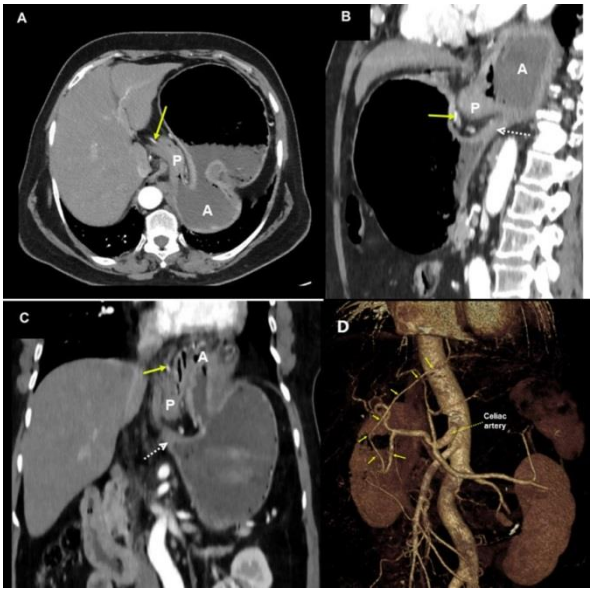


**Figure-1: A)** Axial, **B)** sagittal and **C)** coronal CT angiography images show rotation of the stomach around short axis from the lesser to greater curvature, displacement of antrum (A) and pylorus (P) above gastro-esophageal junction (dashed arrows). **D)** Three-dimensional volume rendering CT image also showed superior displacement of the gastroduodenal artery (arrows).

**Conflict of interest:** Authors declare that they have no conflict of interest.

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