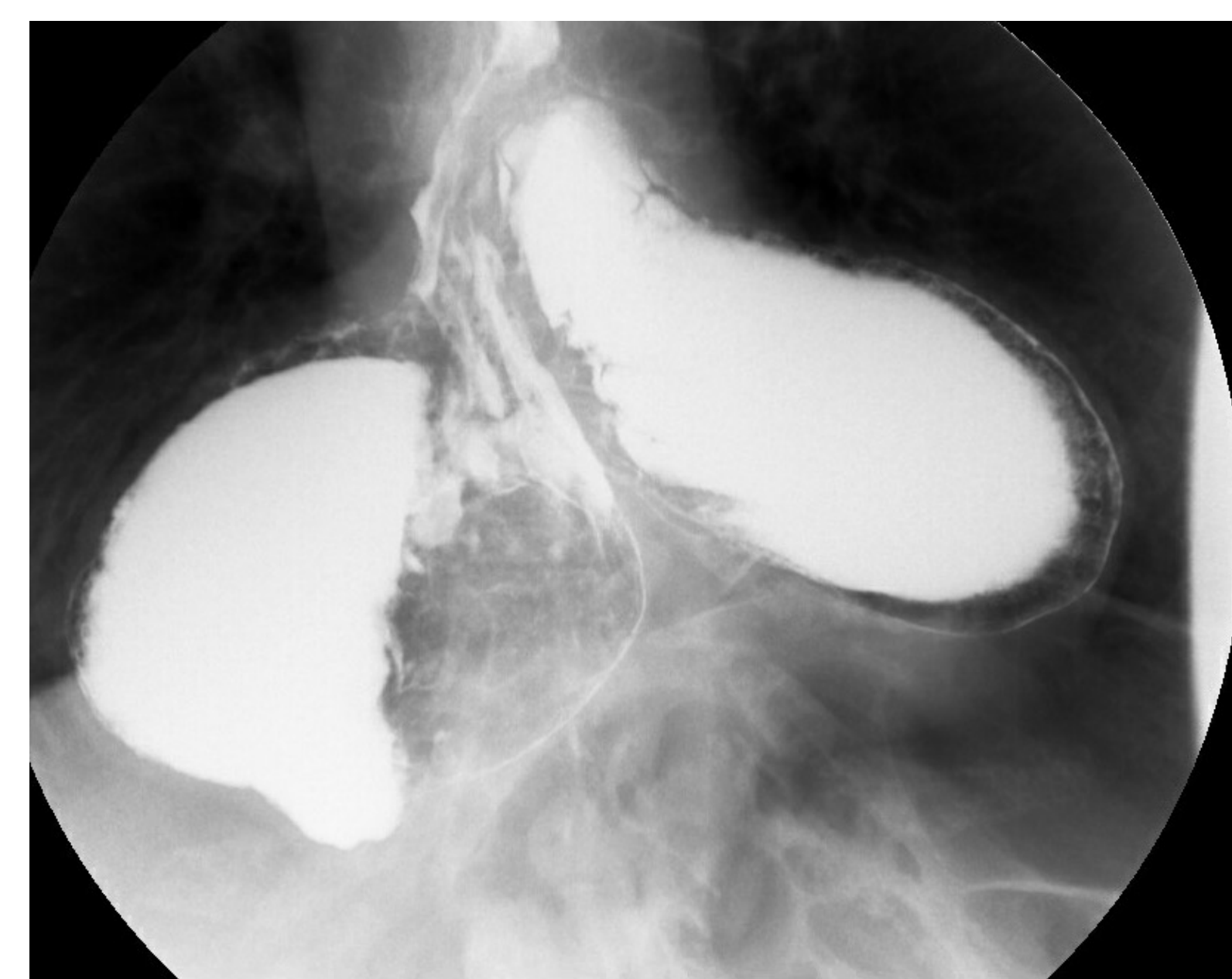


INTRODUCTION

- A type IV hiatal hernia is characterized by displacement of the stomach along with other organs into the intrathoracic cavity and is associated with laxity of the peri-gastric ligaments.
- This condition is extremely rare, accounting for less than 5 percent of all hiatal hernias.
- Due to mechanical issues, paraesophageal hernias can lead to serious complications such as gastric volvulus.
- Depending on the axis of rotation, gastric volvulus can be divided into organo-axial, mesentero-axial or a mixed type of volvulus.
- This case vignette discusses a rare case of a large type IV hiatal hernia with both organo-axial and mesentero-axial gastric volvulus.

CASE DESCRIPTION

- A 75-year-old female with past medical history of a large hiatal hernia was referred to GI clinic for intermittent post-prandial and right sided non-exertional chest pain of a few years.
- She denied any associated shortness of breath, diaphoresis, palpitations, and nausea/vomiting.
- A subsequent diagnostic esophagogastroduodenoscopy (EGD) revealed a significant anatomic distortion of the stomach with a posteroinferior positioning of the pylorus and a large 10 cm paraesophageal hernia with associated mucosal erythema, edema, and hematin material.
- To further characterize the anatomy, an upper GI series demonstrated a large type IV hiatal hernia with an intrathoracic stomach measuring 9.3 cm x 15.8 cm and evidence of both organo-axial and mesentero-axial gastric volvulus.
- Patient was referred to surgery for gastric detorsion, fixation, and repair of the large paraesophageal hernia.



A- Upper GI Series Demonstrated A Large Type IV Hiatal Hernia with An Intrathoracic Stomach measuring 9.3 cm x 15.8 cm
 B- EGD showing paraesophageal hernia with associated mucosal erythema, edema, and hematin material.

DISCUSSION

- Gastric volvulus is a rare condition and can develop as a complication of a paraesophageal hernia.
- Due to fixation of the stomach along the GE junction and pylorus axis, the herniated stomach tends to rotate along this longitudinal axis resulting in an organo-axial volvulus.
- Less frequently, the stomach can rotate along the transverse axis resulting in a mesentero-axial volvulus.
- Organo-axial and mesentero-axial volvuli occurring together is extremely rare.
- Chronic gastric volvulus can present with nonspecific symptoms such as intermittent epigastric discomfort, postprandial fullness, nausea, dysphagia, dyspnea, or chest discomfort.
- Imaging via upper GI series or cross-sectional imaging are required to make the diagnosis.
- Chronic gastric volvulus secondary to the hiatal hernia can be managed surgically on a nonemergent basis with detorsion, fixation of the gastric volvulus and repair of the hiatal hernia.

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CONTACT INFORMATION

Yuhan Fu Email: yfu@metrohealth.org