

# Chronic Gastric Volvulus: A Rare Diagnosis for a Common Constellation of Gastrointestinal Symptoms

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## Introduction

- Gastric volvulus occurs as a result of pathologic laxity of gastric structures that leads to abnormal rotation of the stomach.
- The rotation can be either organo-axial, mesentero-axial or both.
- Gastric volvulus can be primary or secondary and present as acute or go undetected as chronic, with vague gastrointestinal (GI) symptoms, including intermittent epigastric pain, dysphagia, and early satiety.
- In about 60% of cases of secondary gastric volvulus, patients have an underlying diaphragmatic weakness.

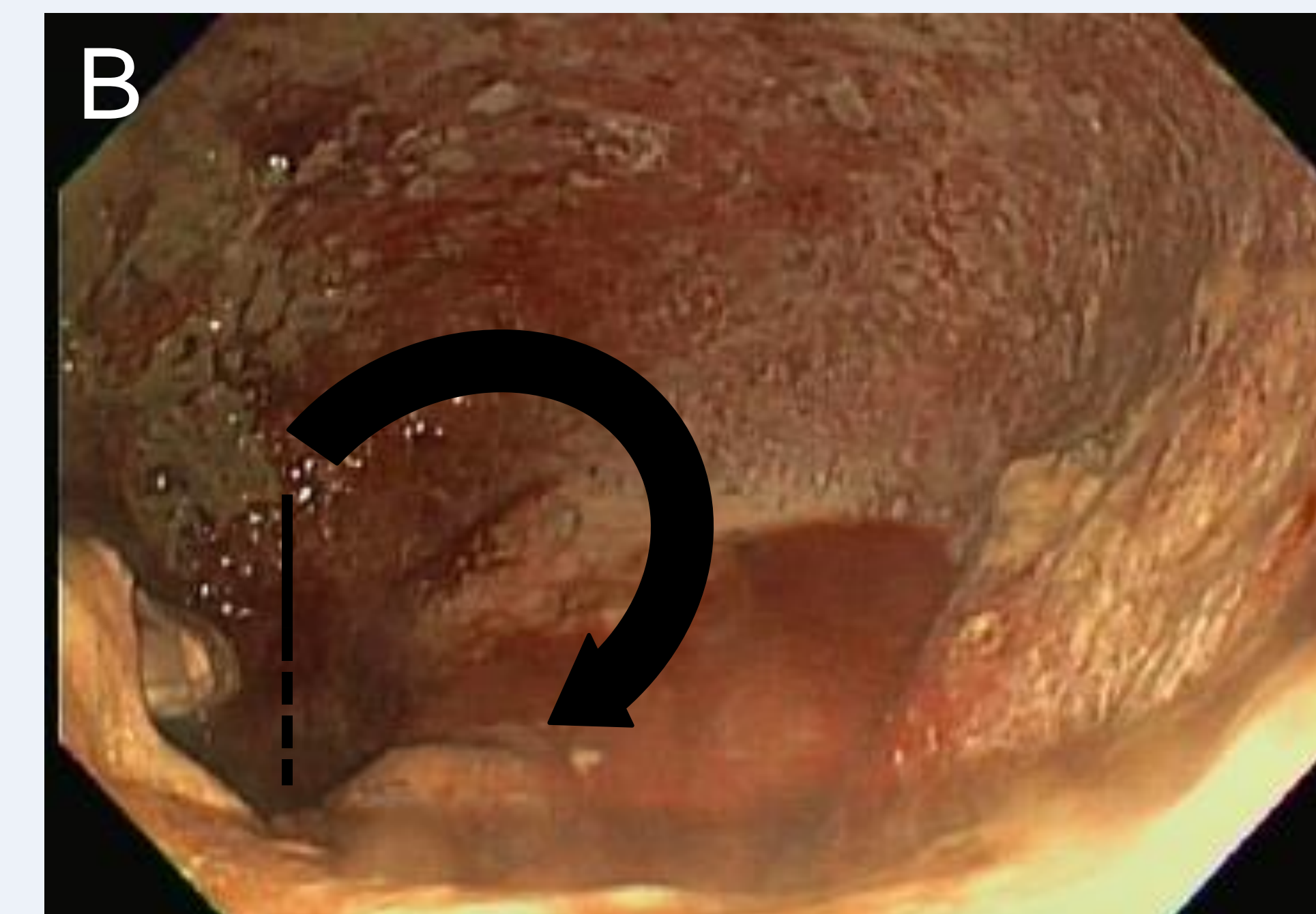
## Case Description

- A 78-year-old woman with history of a hiatal hernia and gastroesophageal reflux disease presents to the hospital with severe nausea, vomiting and epigastric pain.
- Computed tomography (CT) showed large hiatal hernia and organo-axial rotation of the intrathoracic stomach.
- Patient subsequently underwent hiatal herniorrhaphy with Nissen fundoplication for paraesophageal hernia repair.
- Post-operatively, she continued to have poor oral tolerance and epigastric pain. An upper GI series showed changes consistent with a Nissen but there was limited filling of the stomach.
- Two months later, the patient presented to the hospital with failure to thrive. During the interim, she had persistent epigastric pain, nausea, vomiting, reflux and 20-pound weight loss.

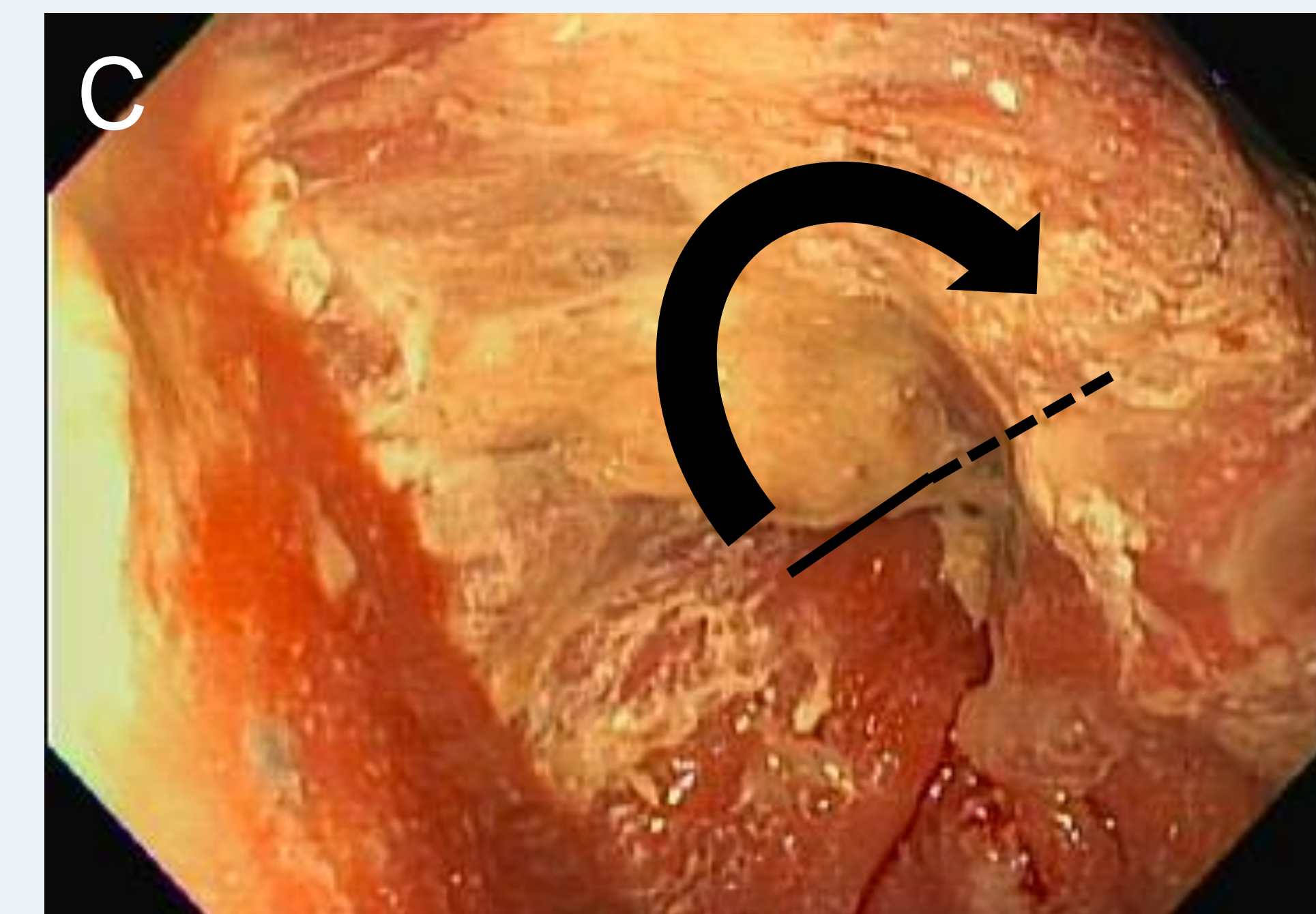
## Diagnostic Findings



A. CT Abdomen and Pelvis showing herniation into the thoracic compartment and the organo-axial rotation of the stomach in the coronal view. GC – greater curvature of the stomach. LC – lesser curvature of the stomach



B, C. Two EGD images displaying the leftward torquing that was required to bypass the twisted gastric body



## Patient Outcome

- CT imaging once again showed organo-axial rotation of the stomach. EGD captured the gastric body volvulus as well as slipped Nissen, which led to its revision.
- While this patient had multiple CT studies that pointed to a picture larger than simply a severe hiatal hernia as an explanation for her chronic, intermittently worsening epigastric pain, that diagnosis was fundamentally missed.

## Conclusion

- Chronic intrathoracic organo-axial rotation of the stomach is rare. It may present as a complication of paraesophageal hernia.
- This case points out the importance of considering chronic volvulus as a presentation for epigastric pain, nausea, and vomiting as well as the importance of reviewing all diagnostic studies and imaging in order to make the correct diagnosis.
- Delay in diagnosis can lead to futile work up and deteriorating quality of life for patients.

## References

1. Cozart, J. C, and R. E Clouse. "Gastric Volvulus as a Cause of Intermittent Dysphagia." *Digestive diseases and sciences* 43.5 (1998): 1057–1060. Print.
2. Fung, Kam Pui, Steven Rubin, and R. Brent Scott. "Gastric Volvulus Complicating Nissen Fundoplication." *Journal of pediatric surgery* 25.12 (1990): 1242–1243. Web.
3. Hsu, Yao-Chun et al. "Conservative Management of Chronic Gastric Volvulus: 44 Cases over 5 Years." *World journal of gastroenterology : WJG* 16.33 (2010): 4200–4205. Web.
4. Levine, Milton L., and Burt Gelberg. "Gastric Mucosal Disruption (fissuring) as a Sign of Impending Perforation in a Patient with Gastric Volvulus." *Gastrointestinal endoscopy* 39.2 (1993): 214–215. Web.