

# Hepatic Portal Venous Gas Secondary to Ischemic Gastritis

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## Introduction

- Hepatic portal venous gas is an uncommon but potentially fatal radiographic finding
- Its causes include ischemia, infection or trauma with an overall in-hospital mortality rate of 27.3%.
- Herein we report a case of portal venous gas secondary to severe acute ischemic gastritis associated with gastric pneumatosis

## Case Description

- An 86-year-old male with a past medical history of Parkinson's disease presented with persistent coffee ground emesis for one day. Initial lab workup revealed low hemoglobin of 8.9.
- Due to multiple bouts of intractable vomiting unresponsive to antiemetics, he was intubated and transferred to the ICU.
- CT A & P with IV contrast showed large amounts of portal venous gas in the liver accompanied by air in the mesenteric veins and the gastric fundus.
- Patient was started on a pantoprazole drip with nasogastric tube on low intermittent suctioning for gastric decompression.
- Endoscopy revealed friable hemorrhagic and ulcerated mucosa; biopsy returned positive for active gastritis in the absence of H.pylori infection.
- This elucidated the underlying cause to be most likely secondary to ischemic gastritis.
- Following multiple blood transfusions and ultimately symptom resolution, the patient was extubated and repeat endoscopy revealed an improvement in gastritis from prior examination.

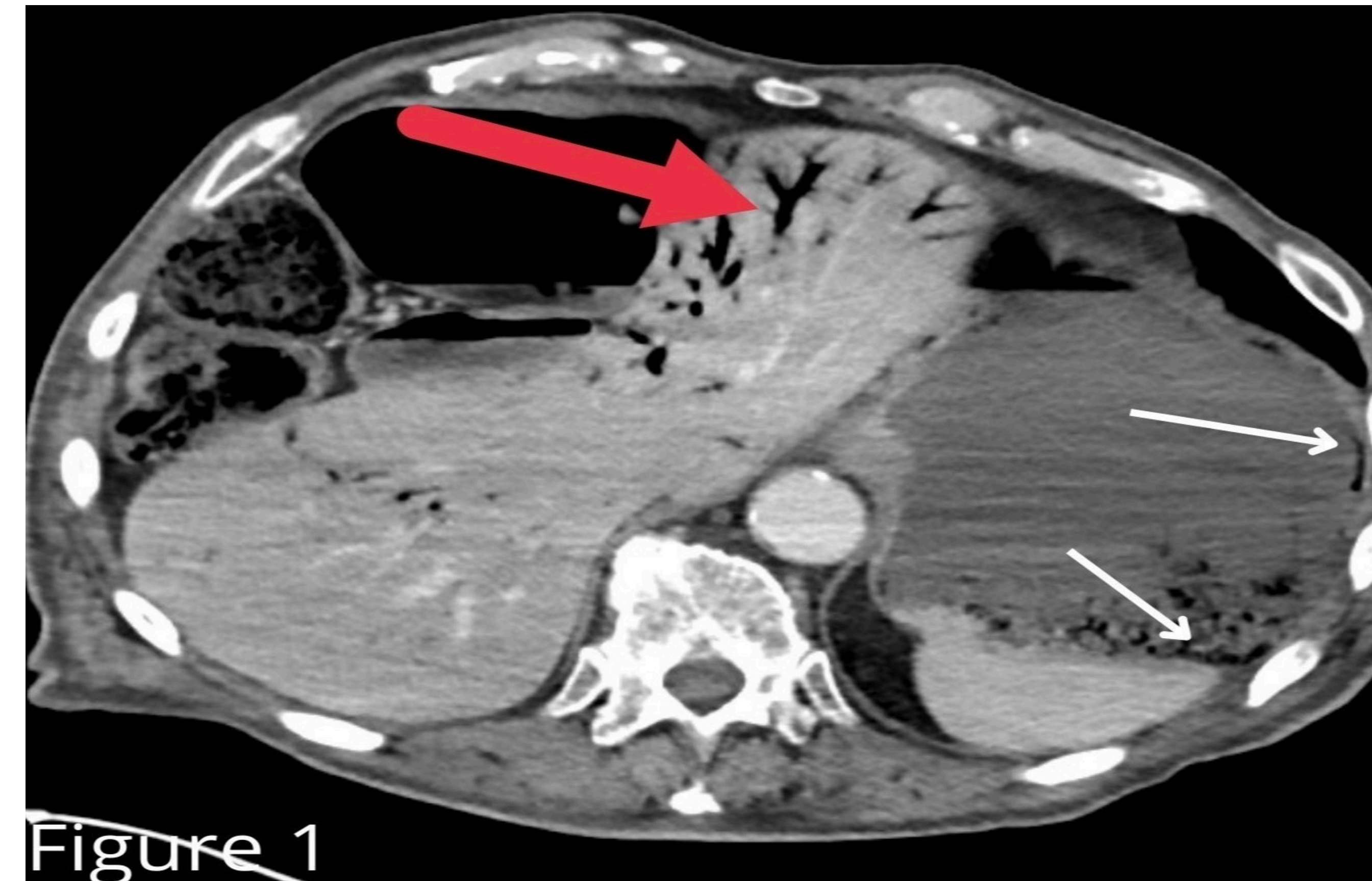


Figure 1: CT scan of abdomen showing large amount of portal venous gas in the liver (red arrow) with pneumatosis involving the gastric fundus (white arrows).

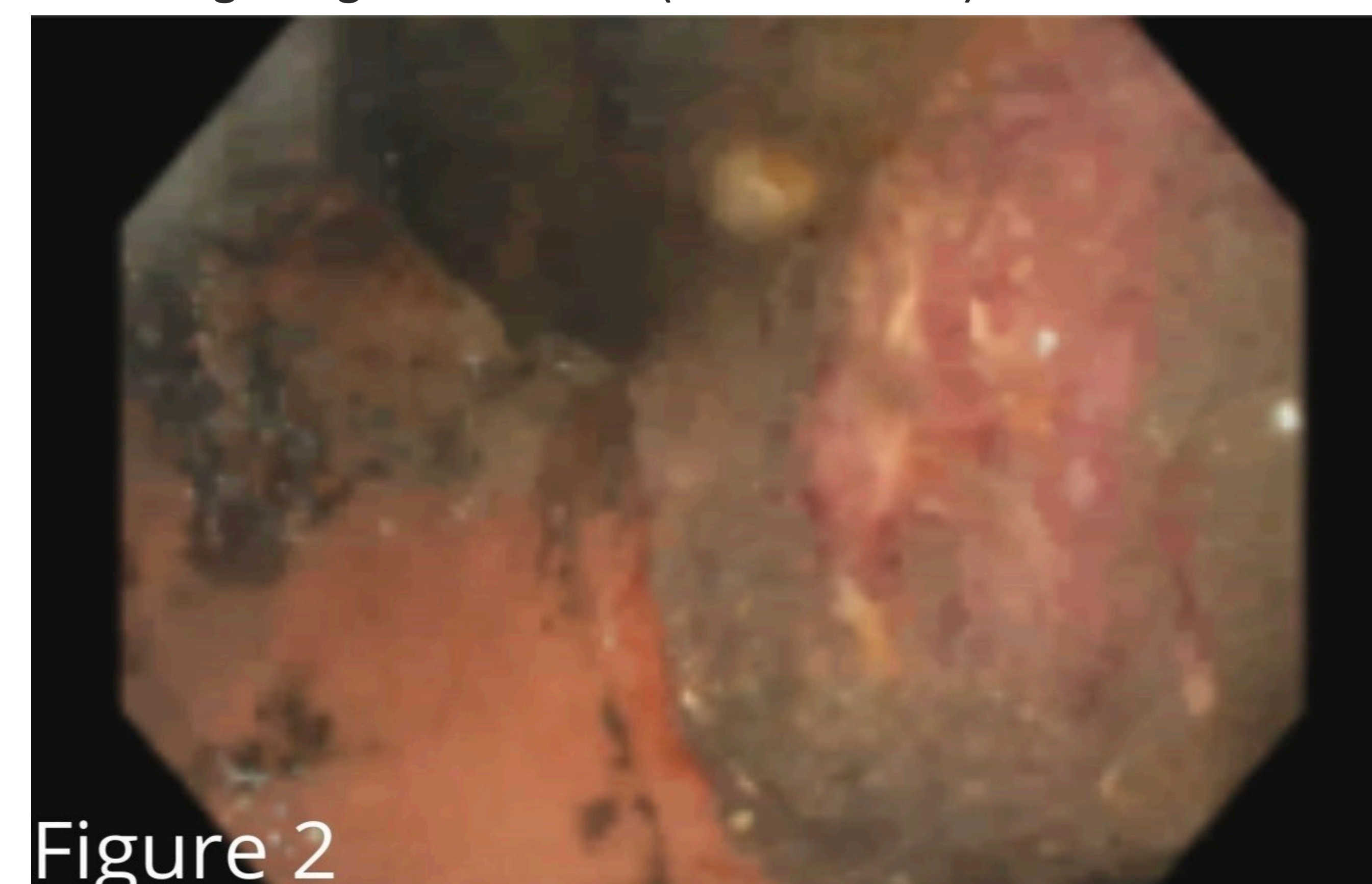


Figure 2: Endoscopy showing severe mucosal changes characterized by dusky discoloration, friability, hemorrhagic appearance and ulceration along the lesser curvature of the stomach.

## Discussion

- Hepatic portal venous gas is considered an imaging manifestation of various etiologies
- It cannot be used as a predictor of mortality by itself.
- Most cases are caused by intestinal ischemia. Other causes can largely be divided into iatrogenic and non-iatrogenic such as infection, trauma, and ulceration in the former to endoscopic procedures in the latter categories.
- Our case is unique in that ischemia is relatively uncommon in stomach, particularly in patients such as this one with relatively little atherosclerotic disease.
- It is important to differentiate the etiology of portal venous gas due to its varied presentation from benign to life-threatening, its mortality being determined by the underlying pathology.
- Further research is imperative to establish proper management guidelines for this rare disease entity.

## References and Disclosures

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### Disclosures

- There are no financial disclosures to report