

A 45-year-old male immigrant from Guatemala comes to the physician because of persistent nausea and vomiting of partially digested food. He has had these symptoms for the past 1 month. He has also lost 2.3 kg (5 lb) during this period of time. His appetite is good, but he mentions early satiety. He denies hematemesis, black stools, difficulty swallowing, and chest pain. His other medical problems include type 2 diabetes for the past 1 year and a suicide attempt 3 months ago in which he ingested acid. He has a history of peptic ulcer disease and often takes antacids for heartburn. He drinks alcohol and smokes one pack of cigarettes daily. His temperature is 36.8° C (98.2° F), blood pressure is 110/65 mm Hg, pulse is 110/min, and respirations are 16/min. Mucous membranes are dry. Abdominal examination shows succussion splash on the epigastrium. Which of the following is the most likely diagnosis?

- ☐ A. Achalasia
- ☐ B. Chronic pancreatitis
- ☐ C. Diabetic gastroparesis
- ☐ D. Esophageal stricture
- ☐ E. Portal hypertension
- ☐ F. Pyloric stricture

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- ☐ A. Achalasia [4%]
- ☐ B. Chronic pancreatitis [2%]
- ☐ C. Diabetic gastroparesis [12%]
- ☐ D. Esophageal stricture [23%]
- ☐ E. Portal hypertension [1%]
- ☒ F. Pyloric stricture [58%]

[Proceed to Next Item](#)**Explanation:**

User Id: [REDACTED]

This patient presents with signs/symptoms consistent with gastric outlet obstruction caused by mechanical obstruction, leading to postprandial pain and vomiting with early satiety. Common causes of gastric outlet obstruction include gastric malignancy, peptic ulcer disease, Crohn disease, strictures (with pyloric stenosis) secondary to ingestion of caustic agents, and gastric bezoars.

Physical examination can show an abdominal succussion splash, which is elicited by placing the stethoscope over the upper abdomen and rocking the patient back and forth at the hips. Retained gastric material >3 hours after a meal will generate a splash sound and indicates the presence of a hollow viscus filled with both fluid and gas.

This patient ingested acid 3 months ago, which is a risk factor for the development of a pyloric stricture. Acid ingestion causes fibrosis 6-12 weeks after the resolution of the acute injury. Upper endoscopy is usually required to confirm the diagnosis, and treatment is primarily surgical.

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(Choices A and D) Esophageal stricture and dysmotility (e.g., achalasia) tend to present with dysphagia, which is not this patient's presenting symptom. In addition, abdominal succussion splash is not a typical finding in esophageal stricture or achalasia.

(Choice B) Chronic pancreatitis can lead to inflammation and fibrosis in adjacent structures (e.g., duodenum, jejunum, and transverse colon) that can rarely lead to obstruction. However, gastric obstruction is not usually caused by pancreatitis.

(Choice C) Diabetic gastroparesis tends to occur in patients who have had diabetes for longer than a decade. This patient was diagnosed with diabetes only 1 year ago and is less likely to have gastroparesis.

(Choice E) Portal hypertension typically does not lead to gastric obstruction or an abdominal succussion splash on physical examination.

Educational objective:

Gastric outlet obstruction can be caused by many disease processes and is characterized by early satiety, nausea, nonbilious vomiting, and weight loss. In a patient with a history of acid ingestion, pyloric stricture is the most likely cause.

References:

1. [Pyloric and antral strictures following corrosive acid ingestion: A report of four cases.](#)
2. [Caustic injury of the upper gastrointestinal tract in adults: a clinical and endoscopic study.](#)

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