Peptic Ulcer Disease

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INTRODUCTION

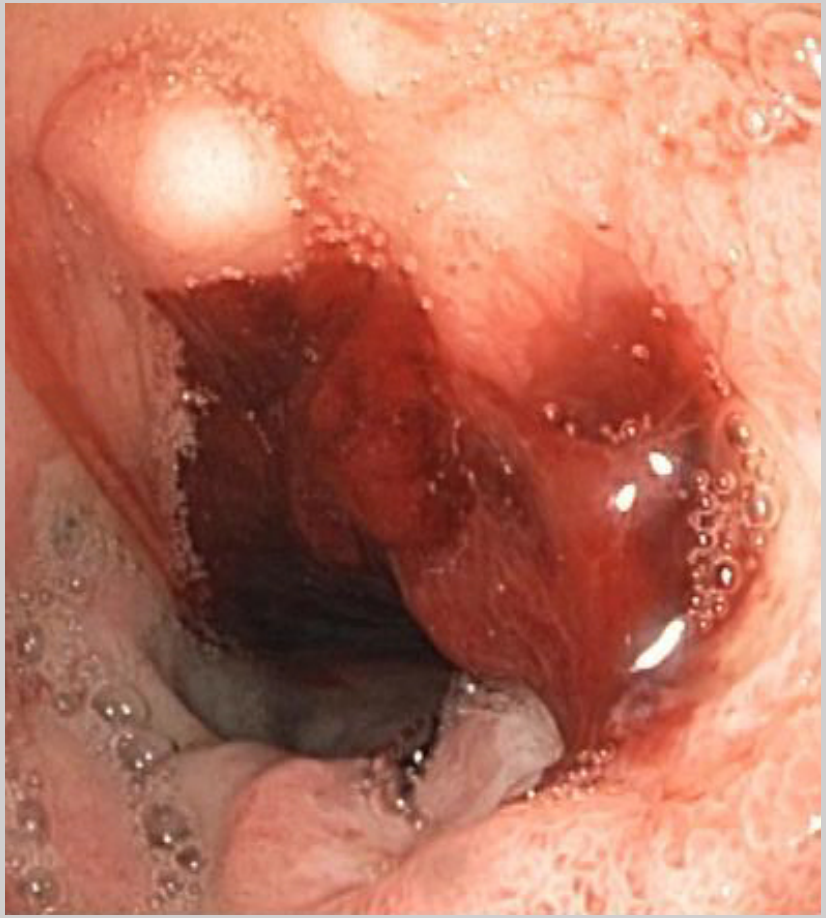
- A peptic ulcer is a defect in the gastric or duodenal mucosa that extends through the muscularis mucosa into the deeper layers of the wall

CLINICAL MANIFESTATIONS

- **Dyspepsia** — Upper abdominal pain or discomfort
- **Asymptomatic** — Approximately 70 percent of peptic ulcers are asymptomatic
- **Ulcer complications**

- bleeding
- gastric outlet obstruction
- penetration and fistulization
- perforation

BLEEDING DU



LABORATORY FINDINGS

- Most patients with peptic ulcers have a normal complete blood count. However, patients may have iron deficiency anemia due to gastrointestinal blood loss

DIAGNOSIS

- **Upper endoscopy**

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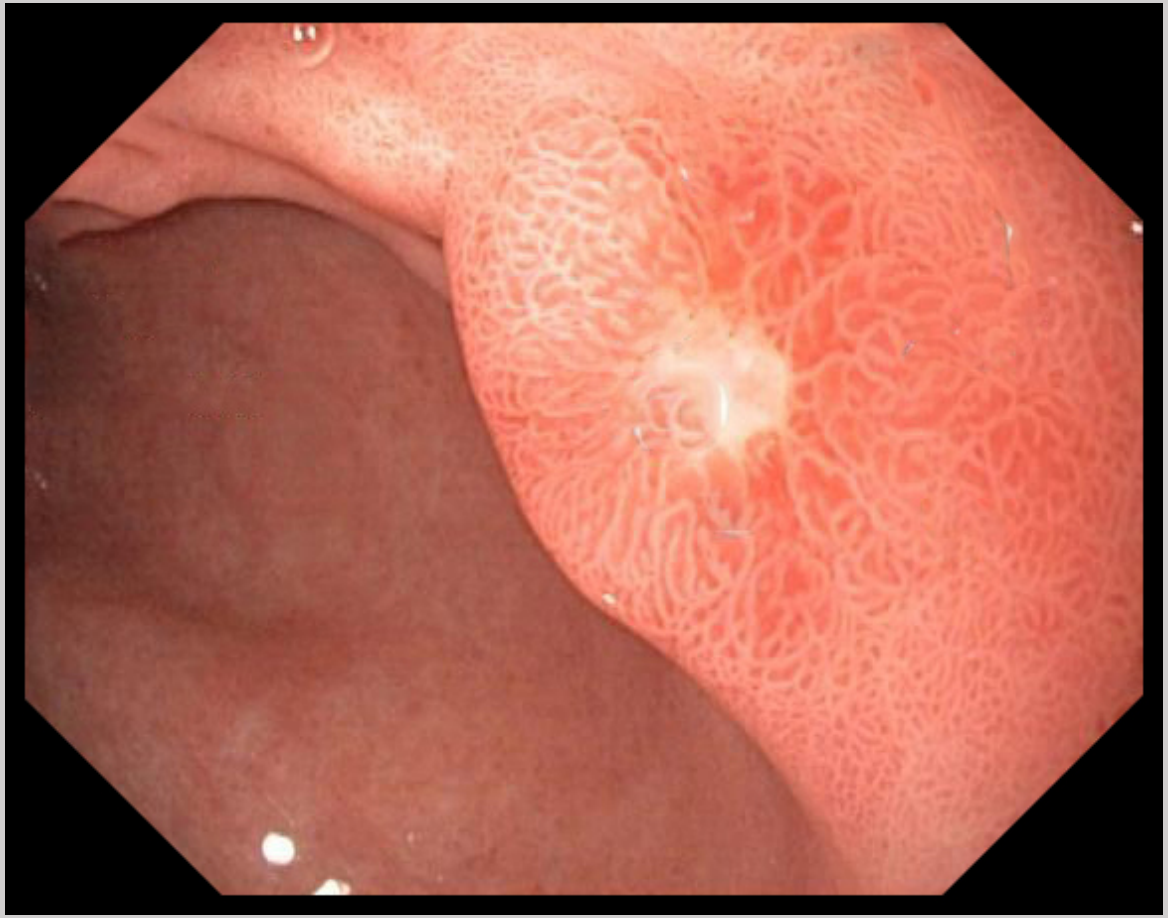
Unintentional weight loss
Progressive dysphagia
Odynophagia
Unexplained iron deficiency anemia
Persistent vomiting
Palpable mass or lymphadenopathy
Family history of upper gastrointestinal cancer

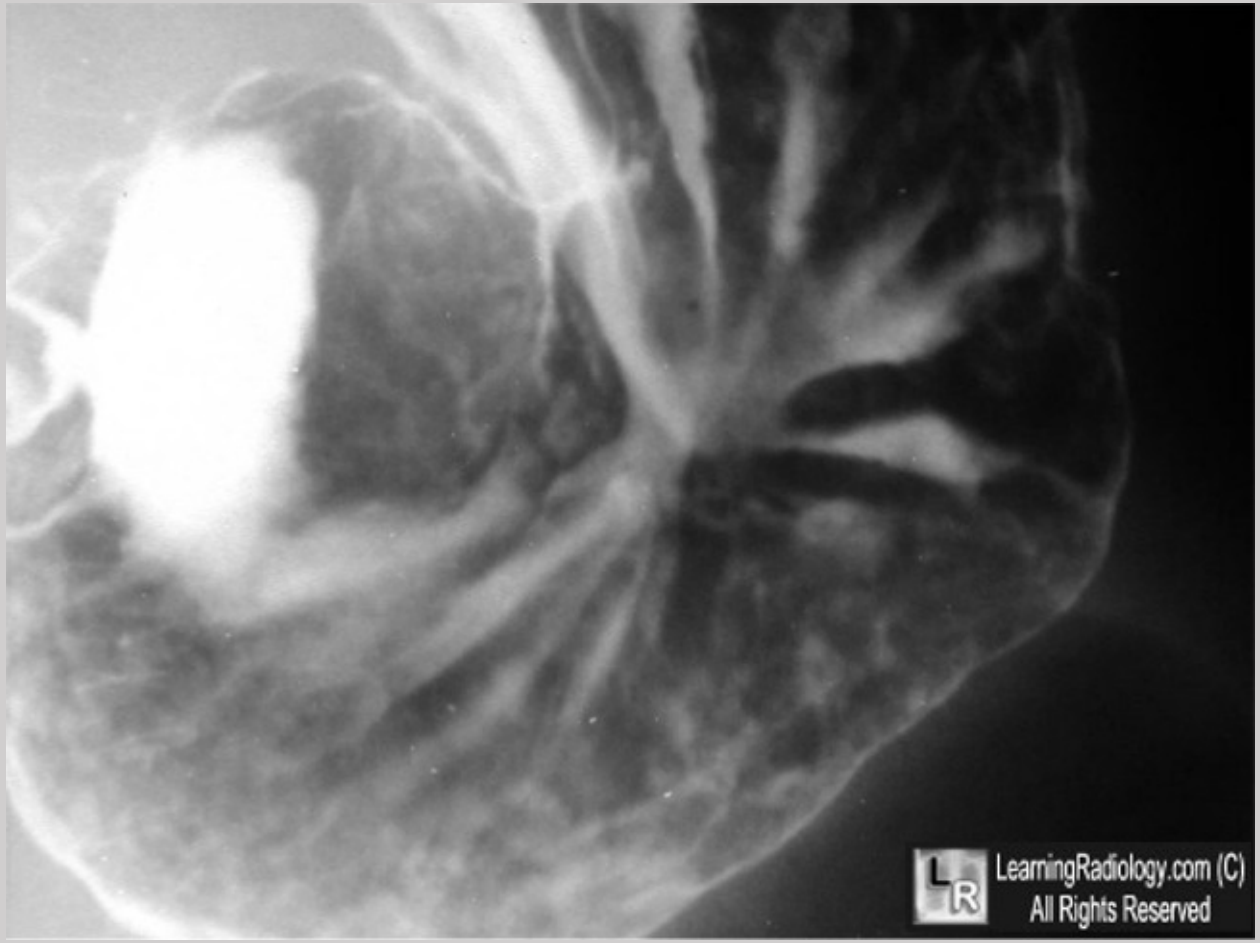
DIAGNOSIS: GU



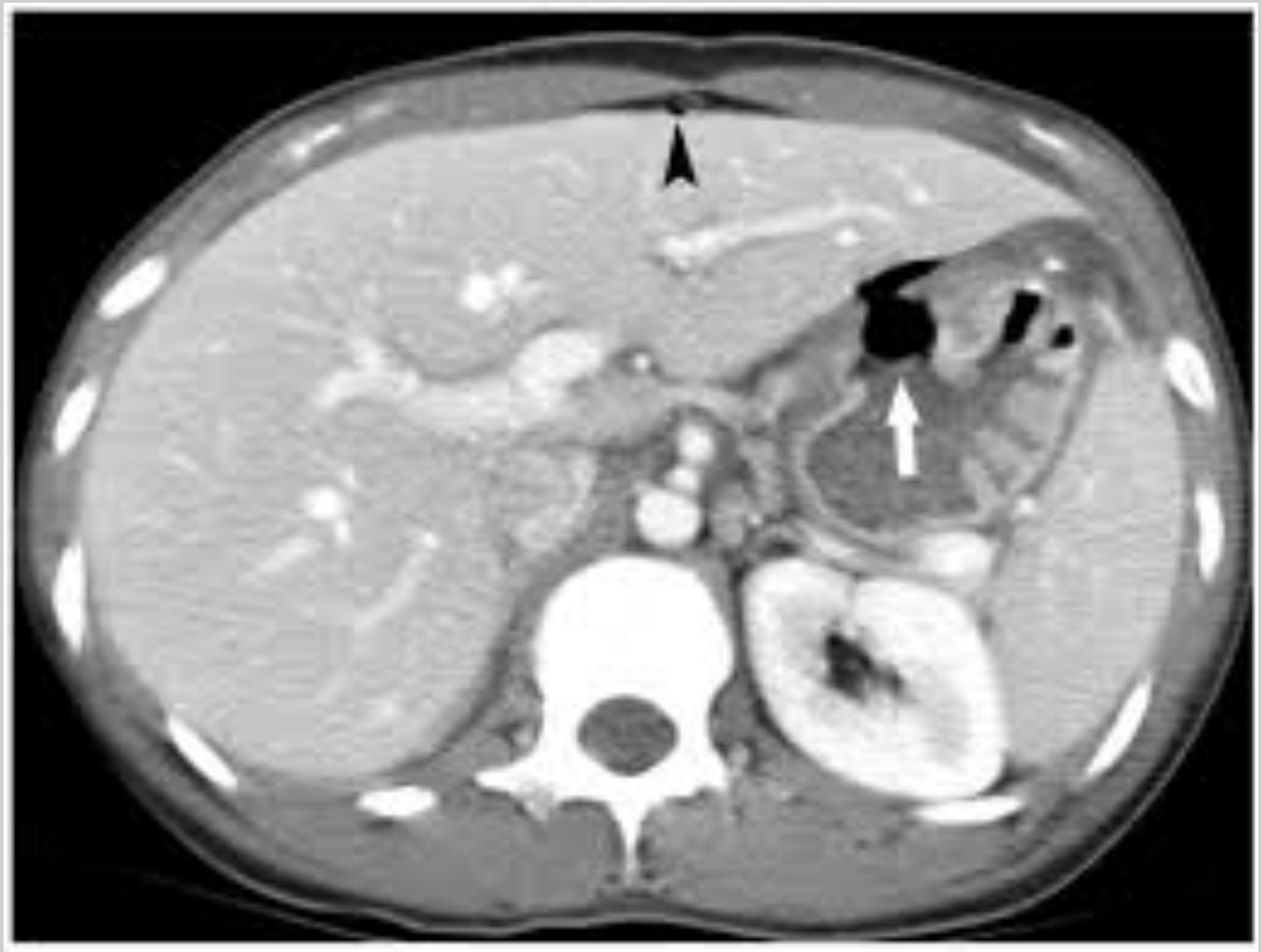
DIAGNOSIS

- Imaging
- CT
- Barium

GASTRIC ULCER ON BARIUM MEAL



PERFORATED GU



ESTABLISHING THE ETIOLOGY

- **Test for Helicobacter pylori**
- Biopsy urease testing
- Urea breath test
- Stool antigen
- **Assessment of NSAID use**
- **Other: smoking, malignancy, acid hypersecretion**

RAPID UREASE TEST

DIFFERENTIAL DIAGNOSIS

- Celiac
- Gastric malignancy
- Chronic pancreatitis
- Biliary disease
- Drug induced dyspepsia

MANAGEMENT

- **Eradication of Helicobacter pylori**

- All patients with peptic ulcers should be tested for infection with *H. pylori* and treated
- In patients treated for *H. pylori,* eradication of infection should be confirmed four weeks after the completion of therapy

MANAGEMENT

- **Withdrawal of offending or contributing factors**

- Patients with peptic ulcers should be advised to avoid nonsteroidal anti-inflammatory drugs (NSAIDs)
- Contributing factors should be addressed and treated (eg, treating medical comorbidities, poor nutritional status, ischemia, smoking)

MANAGEMENT

- **Antisecretory therapy**

- ***H. pylori*-positive ulcer:** In patients with uncomplicated duodenal ulcers, the proton pump inhibitor (PPI), given for 14 days, along with the antibiotic regimen to treat *H. pylori*, is usually adequate to induce healing, and additional antisecretory therapy is not needed as long as they are asymptomatic following therapy
- In patients with complicated duodenal ulcers, we suggest antisecretory treatment for four to eight weeks and in patients with gastric ulcers, we suggest antisecretory therapy for 8 to 12 weeks

MANAGEMENT

- In patients with gastric ulcers, we discontinue antisecretory therapy only after ulcer healing has been confirmed by upper endoscopy
- Cure of *H. pylori* infection should be confirmed four weeks after completion of eradication therapy

MANAGEMENT

- **NSAID-induced ulcer**

- Patients with NSAID-associated ulcers should be treated with a PPI for a minimum of eight weeks
- In patients with peptic ulcers who need to remain on NSAIDs or aspirin, maintenance antisecretory therapy with a PPI should be considered to reduce the risk of ulcer complications or recurrence

MANAGEMENT

- **Non-*H. pylori*, non-NSAID ulcers**

- In patients with *H. pylori*-negative ulcers that are not associated with NSAID use, we suggest PPI therapy for four to eight weeks based on the ulcer location (gastric or duodenal) and the presence of complications

MANAGEMENT

- **ENDOSCOPY AFTER INITIAL THERAPY**

- **Duodenal ulcers** — Given the low risk of malignancy in patients with duodenal ulcers, a repeat upper endoscopy is not routinely recommended after initial treatment unless symptoms persist or recur

ENDOSCOPY AFTER INITIAL MANAGEMENT

- **Gastric ulcers:** We suggest a surveillance endoscopy (with biopsies of the ulcer if still present) be performed after 12 weeks of antisecretory therapy in patients with gastric ulcers and any one of the following:

●Symptoms despite medical therapy.

●Unclear etiology.

●Giant ulcer (>2 cm).

●Biopsies not performed or inadequate sampling on the index upper endoscopy (total of <4 biopsies obtained from four quadrants of the ulcer and additional biopsies of the edges with jumbo forceps if there are endoscopic features of a malignant gastric ulcer).

●Ulcer appears suspicious for malignancy on index upper endoscopy (mass lesion, elevated irregular ulcer borders, or abnormal adjacent mucosal folds).

●Initial endoscopy was performed for bleeding.

●Risks factors for gastric cancer (eg, age >50 years, *H. pylori*, immigrants from a region with high prevalence of gastric cancer [eg, Japan, Korea, Taiwan, Costa Rica], family history of gastric cancer, the presence of gastric atrophy, adenoma, dysplasia, intestinal metaplasia).

MANAGEMENT

- **MAINTENANCE THERAPY**
- **-** We continue maintenance antisecretory therapy with a proton pump inhibitor in the following high-risk subgroups of patients with peptic ulcer disease:

●Giant (>2 cm) ulcer and age >50 years or multiple co-morbidities

●*H. pylori*-negative, nonsteroidal anti-inflammatory drug (NSAID)-negative ulcer disease

●Refractory peptic ulcer

●Failure to eradicate *H. pylori*

●Frequently recurrent peptic ulcers (>2 documented recurrences a year)

●Continued NSAID use

COMPLICATIONS OF PUD

- GI bleed
- Gastric outlet obstruction
- Penetration
- Fistulization
- perforation

TREATMENT DURING PREGNANCY AND LACTATION

- When peptic ulcer disease is diagnosed in a woman who is pregnant, the focus of treatment is typically acid suppression with a proton pump inhibitor (PPI)
- If *H. pylori* is present, antimicrobial treatment is typically deferred until after delivery
- limited data with omeprazole and pantoprazole suggest that excretion in milk does occur but the levels are low

DISEASE COURSE

- Approximately 60 percent of peptic ulcers heal spontaneously
- with eradication of *H. pylori* infection, ulcer healing rates are >90 percent
- Even with continued proton pump inhibitor (PPI) use, approximately 5 to 30 percent of peptic ulcers recur within the first year based on whether *H. pylori* has been successfully eradicated
- Approximately 5 to 10 percent of ulcers are refractory to antisecretory therapy with a PPI
- The risk of complications in patients with chronic peptic ulcer disease is 2 to 3 percent per year.

Thank you