Upper Gastrointestinal Pathology
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GI Pathology Outline

- Esophagus
- Stomach
- Intestine
- Liver
- Gallbladder
- Pancreas
GI Pathology Outline

- Esophagus
  - Hiatal hernia
  - Mallory-Weiss syndrome
  - Barrett esophagus
  - Carcinoma
Normal esophageal-gastric junction
Hiatal Hernia

- Dilated portion of stomach protrudes above diaphragm
- Common! Usually asymptomatic.
- Heartburn, reflux esophagitis
- Danger: ulceration, bleeding
Sliding (L) and rolling (R) hiatal hernias
Mallory-Weiss Syndrome

- GE junction tears
- Severe vomiting (chronic alcoholics)
- Symptoms: bleeding, pain, infection
- Treatment: cauterization
- Prognosis: usually heals; sometimes fatal
Mallory-Weiss tears
Mallory-Weiss tears
Barrett Esophagus

- Replacement of squamous epithelium by columnar epithelium with goblet cells
- Complication of long-standing reflux esophagitis
- Danger: 30-100x risk of adenocarcinoma
- Treatment: screen for high-grade dysplasia
Normal esophagus (L) and Barrett esophagus (R)
Barrett esophagus
Barrett esophagus
Esophageal Carcinoma

Adenocarcinoma
- Commonest type in US
- Risk factor: Barrett esophagus
- Distal 1/3 of esophagus
- Symptoms: insidious onset; late obstruction

Squamous cell carcinoma
- Commonest type worldwide
- Risk factors: esophagitis, smoking, alcohol, genetics
- Middle 1/3 of esophagus
- Symptoms: insidious onset; late obstruction
Adenocarcinoma of esophagus
Squamous cell carcinoma of esophagus
GI Pathology Outline

- Esophagus
- Stomach
  - Gastritis
  - Ulcers
  - Carcinoma
Gastritis

- Mucosal inflammation
- Asymptomatic, or epigastric pain
- Causes: H. pylori, autoimmune, NSAIDs
- Danger: intestinal metaplasia
Gastritis
Chronic gastritis
Helicobacter pylori organisms
Ulcer

- Erosion of mucosa into submucosa
- Causes: H. pylori, NSAIDs
- Symptoms: epigastric pain
- Danger: bleeding, perforation
Ulcer
Gastric Carcinoma

Intestinal type
• Arises in intestinal metaplasia
• Risk factors: chronic gastritis, bad diet
• Glandular morphology
• Generally asymptomatic

Diffuse type
• Arises from gastric glands
• Risk factors undefined
• Signet ring morphology
• Generally asymptomatic
Intestinal-type gastric carcinoma: glands
Diffuse gastric carcinoma: signet ring cells
Signet ring cell
Gastric carcinoma presenting as mass
Gastric carcinoma presenting as ulcer
Gastric carcinoma presenting as linitis plastica