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
<table>
<thead>
<tr>
<th>Adenocarcinoma</th>
<th>Squamous cell carcinoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonest type in US</td>
<td>Commonest type worldwide</td>
</tr>
<tr>
<td>Risk factor: Barrett esophagus</td>
<td>Risk factors: esophagitis, smoking, alcohol, genetics</td>
</tr>
<tr>
<td>Distal 1/3 of esophagus</td>
<td>Middle 1/3 of esophagus</td>
</tr>
<tr>
<td>Symptoms: insidious onset; late obstruction</td>
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</tbody>
</table>
Adenocarcinoma of esophagus
Squamous cell carcinoma of esophagus

B
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

<table>
<thead>
<tr>
<th>Intestinal type</th>
<th>Diffuse type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Arises in intestinal metaplasia</td>
<td>• Arises from gastric glands</td>
</tr>
<tr>
<td>• Risk factors: chronic gastritis, bad diet</td>
<td>• Risk factors undefined</td>
</tr>
<tr>
<td>• Glandular morphology</td>
<td>• Signet ring morphology</td>
</tr>
<tr>
<td>• Generally asymptomatic</td>
<td>• Generally asymptomatic</td>
</tr>
</tbody>
</table>

**Arises in intestinal metaplasia**
- Risk factors: chronic gastritis, bad diet
- 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