Esophagus and Stomach

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Non-Neoplastic Anomalies

Webs and Rings

Clinical

- Rings (lower esophagus) vs. webs (upper and middle)
- Primary symptom is dysphagia
- May be associated with Plummer-Vinson syndrome (triad of glossitis, esophageal webs, and iron-deficiency anemia)
- Lower esophageal ring (Schatzki’s ring) is the commonest

Atresia

Clinical

- See Table 1
- Newborns present in the first few days of life with regurgitation, choking, aspiration, and cyanosis
- Isolated complete atresia is rare (1:30,000 live births), but atresia associated with tracheo-esophageal fistula is more common (1:3000-4,000 live births)
- Usually associated with other abnormalities (cardiac, genitourinary, skeletal)

Achalasia

Clinical

- Motility disorder whose cause is still unknown
- Due to failure of the lower esophageal sphincter to relax
- Distal “beaklike” deformity and proximal dilatation on barium studies
- Adults (occasionally children)
- Risk of squamous cell carcinoma if untreated

Macroscopic

- Esophagus dilated proximally
- Distal fibrosis, stenosis, and ulceration

Microscopic (Figure 1)

- Loss of myenteric ganglion cells
- Secondary changes such as hypertrophy of all muscle layers, squamous hyperplasia, and fibrosis
- Lymphocytic inflammatory infiltrate with germinal centers in mucosa and around myenteric plexus

Glycogen Acanthosis

Clinical

- Common (found in 15–30% of individuals)
- Asymptomatic
- Distal esophagus
- Endoscopic differential includes candidiasis and exudate
- Occasionally seen in association with the PTEN hamartoma tumor syndrome (mutations on 10q23.3)

Table 1. Types of Tracheoesophageal Fistula/Esophageal Atresia

<table>
<thead>
<tr>
<th>Type</th>
<th>Macroscopic Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Esophageal atresia; No tracheoesophageal fistula</td>
</tr>
<tr>
<td>II</td>
<td>Esophageal atresia with upper-pouch fistula (upper pouch connected to the trachea)</td>
</tr>
<tr>
<td>III*</td>
<td>Esophageal atresia with lower-pouch fistula (lower pouch connect to the trachea or main-stem bronchus)</td>
</tr>
<tr>
<td>IV</td>
<td>Esophageal atresia with upper and lower pouch fistula</td>
</tr>
<tr>
<td>V</td>
<td>Tracheoesophageal fistula; no atresia</td>
</tr>
</tbody>
</table>

*Most common

Fig. 1. Achalasia.

that includes Cowden’s syndrome (facial trichilemmomas, acral keratosis, gastrointestinal hamartomatous polyposis)

Macroscopic

- Uniform, round-oval white plaques
- Size <3 mm
- Longitudinal orientation
- Single or multiple (cobblestone appearance)

Microscopic

- Epithelial hyperplasia
- Glycogenization of superficial cells