

Gastrointestinal Tract Cancer

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4th Year, Faculty of Dentistry

Academic Year 2018/2019, 2nd Semester



Tumors of the Stomach

Gastric adenocarcinoma



Incidence and Epidemiology

- Incidence↓ mortality rates↓ USA
- High incidence: Japan, China, Chile, Ireland
- risk↑ lower socioeconomic classes

Pathology

- Adenocarcinomas 85%
- 15% lymphomas, GIST (gastrointestinal stromal tumor), leiomyosarcomas
- Gastric adenocarcinomas: 1. diffuse type (infiltration thicken the stomach wall) 2. intestinal type (discrete mass)
- Diffuse carcinomas: younger patient, throughout the stomach → loss of distensibility of the gastric wall (=linitis plastica), poor prognosis

Pathology 2

- Intestinal-type carcinomas: frequently ulcerative, antrum, lesser curvature of the stomach, prolonged precancerous process
- 30% distal stomach
- 20% midportion of the stomach
- 37% proximal third of the stomach
- 13% entire stomach

Etiology

- Nitrates in dried, smoked, and salted foods
- Nitrates → converted to carcinogenic nitrites by bacteria


Nitrate-converting bacteria as a factor in the causation of gastric carcinoma

- Exogenous sources of nitrate-converting bacteria: bacterially contaminated food, H.pylori infection (?),
- Endogenous factors favoring growth of nitrate-converting bacteria in the stomach: gastric acidity↓, atrophic gastritis, pernicious anemia, prolonged exposure of H2 receptor antagonists (?)


Etiology 2

- Intestinal metaplasia→ cellular atypia→ neoplasia
- Gastric ulcers
- Adenomatous polyps
- Blood group A

Clinical Features

- Surgically curable gastric cancers→ no symptoms
 - Insidious upper abdominal discomfort
 - Vague fullness to severe pain
 - Anorexia,nausea
 - Weight loss
 - Vomiting
 - No early physical signs
 - Palpable abdominal mass
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Clinical Features

- Spread by through the gastric wall→ perigastric tissues→ pancreas, colon, liver
 - Spread via lymphatics
 - Metastases→ intraabdominal lymph nodes, supraclavicular lymph nodes, malignant ascites
 - Hematogenous spread→ liver
 - Iron-deficiency anemia
 - Occult blood in the stool
 - Migratory thrombophlebitis
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Diagnosis

- Double-contrast radiographic examination
- Gastroscopy + biopsy or brush cytology

Staging System for Gastric Carcinoma

- Stage 0: Node negative, limited to mucosa
- Stage IA: Node negative, invasion of lamina propria or submucosa
- Stage IB: Node negative, invasion of muscularis propria
- Stage II: Node positive, invasion beyond mucosa but within wall OR node negative, extension through wall

Staging System for Gastric Carcinoma 2

- Stage IIIA: Node positive, invasion of muscularis propria or through wall
- Stage IIIB: Node negative, adherence to surrounding tissue
- Stage IV: Node positive, adherence to surrounding tissue OR distant metastases

Treatment

- Complete surgical removal of the tumor+ resection of adjacent lymph nodes
- Subtotal gastrectomy← distal carcinomas
- Total gastrectomy← proximal tumors
- 5-year survival rate: 20%
- Ascites
- Hepatic and peritoneal metastasis
- Reduction of tumor mass ← palliation

Treatment 2

- Radioresistant tumor
- 5-FU= 5-fluorouracil
- Cisplatin+ Epirubicin
- 5-FU+ Irinotecan

Primary Gastric Lymphoma

- 15% of gastric malignancies
- Dg: gastroscopy+ biopsy
- Gastric non-Hodgkin's lymphomas of B cell origin
- MALT(= mucosa-associated lymphoid tissue) lymphoma
- H. pylori


Treatment of Primary Gastric Lymphoma

- Subtotal gastrectomy+ CHOP (Cyclophosphamide, Doxorubicine, Vincristine, Prednisone) + Rituximab
- 5-year survival rate: 40-60%

Esophageal Cancer

- Uncommon
- Extremely lethal malignancy
- After age 50
- Lower socio-economic status


Etiologic factors

- Excess alcohol consumption
 - Cigarette smoking
 - Ingested carcinogens: nitrates (converted to nitrites), fungal toxins
 - Chronic achalasia
 - GERD, Barret's esophagus
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Pathology

- Adenocarcinomas
- Squamous cell carcinomas
- Distal esophagus: 55%
- Upper third: 10%
- Middle third: 35%

Clinical Features

- Progressive dysphagia: solid foods→ liquids
 - Weight loss
 - Incurable disease develop
 - Odynophagia (pain on swallowing)
 - Vomiting, aspiration pneumonia
 - Metastases: adjacent lymph nodes, liver, lungs, bone
 - Tracheo-esophageal fistula
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Diagnosis

- Contrast radiograph→ esophageal narrowing, ulcerating changes in the mucosa
- Esophagoscopy+ biopsy

Treatment

- Poor prognosis
 - 5-year survival rate:5%
 - Surgical resection
 - Cisplatin
 - Repeated endoscopic dilatation
 - Metal stent placement
 - Endoscopic laser therapy
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