

NURS 821 Gastrointestinal Disorders

Lecture 8 Part 2 Disorders of the Stomach

Acquisition of GI Infections

- 7 F's !!!!
- Food
- Fluids
- Feces
- Fingers
- Fomites
- Fornication
- Flies



Foodborne Illness

- 76 million affected annually with 5,000 deaths in U.S.
- Pathogens-Salmonella, Shigella, E. coli. Listeria, Clostridium especially lethal
- Cause-improper food preparation, cooking, or food left out more than 2 hours after cooking
- Risk-immunocompromised, old, young, pregnant women
- Manifestations-abdominal cramps, N, V, D, F, dehydration

Hemolytic Uremic Syndrome

- Pathogen: E. Coli O157:H7
- Risk-children ages 1-10
- Etiology-contaminated ground beef, unpasteurized apple cider or apple juice, raw sprouts
- Manifestations-vomiting, abdominal pain, diarrhea, fever, lethargy, pallor
- Complications-acute renal failure, anemia

Smoking and GI Tract

- Contributes to:
 - GERD- decreases the strength of the LES
 - PUD-duodenal ulcers less likely to heal and more likely to cause death
 - may increase H. pylori risk
 - Reduced pancreatic production of bicarbonate to neutralize acid
 - Increased acid secretion
 - Crohn's Disease-may cause bowel ischemia, decrease bowel defenses, or cause immune system changes
 - Pronounced in women



Smoking and GI Tract

- Cholelithiasis-unknown reason; more pronounced in women
- Liver disease-
 - Affects hepatic detoxification of drugs and alcohol
 - May aggravate liver disease
- Most effects are reversible!
- (NIDDK, 2002)

Gastroesophageal Reflux Disease (GERD)

- Pathophysiology-LES fails to close and stomach contents reflux into esophagus causing inflammation
- Dx if occurs >2x/week
- Prevalence-common overlooked problem in infants due to immature digestive systems; outgrow by 1 year
- Risk factors-obesity, pregnancy, hiatal hernia, smoking, alcohol use, Food (citrus, chocolate, fatty fried foods, spicy, tomato based foods, and caffeine)

GERD Manifestations

- Heartburn
- Chest pain
- Morning hoarseness
- Dysphagia
- Vagal stimulation-bradycardia
- Feeling like food stuck in throat, choking, or throat tightness
- Dry cough
- Bad breath
- Respiratory symptoms



GERD Complications

- Inflammation and ulceration
- Scarring causing narrowing and obstruction
- Barrett's esophagus-squamous cells of esophagus turn into precancerous specialized columnar cells, causing strictures and
- Aggravates and may cause asthma, chronic cough, pulmonary fibrosis (NIDDK, 2002)

Gastritis

- Definition-Acute or chronic gastric mucosa inflammation
- Incidence-Acute-most common in persons 40-50; chronic in those over 60; M>F
- Risk factors-cigarettes, caffeine, alcohol, spicy foods, NSAIDS, H. Pylori infections or other endogenous toxins in shock, RF, hepatic failure.

Gastritis

- Etiology-
 - Acute-increased acid and pepsinogen secretion and barrier breakdown leads to inflammation
 - Chronic-usually due to barrier breakdown
- Pathophysiology-
 - H. pylori causes impaired acid regulation causing inflammation and acute gastritis
 - Epithelial gastric erosion with regeneration and healing
 - Chronic-progressive, permanent thinning and gastric mucosa thinning and degeneration
 - Chief cell atrophy-impaired protein digestion; IF loss impedes B₁₂ absorption

Gastritis Manifestations

- Asymptomatic
- Acute-Epigastria pain and hematemesis
- Chronic-achlorhydria and pernicious anemia
