NURS 821 Gastrointestinal Disorders

Lecture 8

Part 3 Disorders of the Stomach (cont'd)

Peptic Ulcer Disease (PUD)

- Definition-chronic inflammation resulting in acid and pepsin causing deep erosion of stomach or duodenum
- Incidence-1 in 10 Americans develop ulcer during lifetime
- Etiology-multifactorial-decreased mucous barrier protection and inflammation and acid secretion

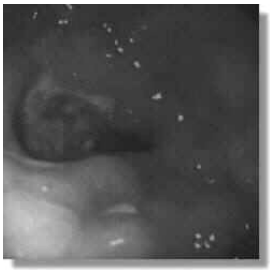
PUD

- Risk factors-H. pylori, older age, O blood type, family hx, steroids, NSAIDS, alcohol, stress, smoking, cancer, NOT STRESS or spicy food!
- Pathophysiology-
  - H pylori common bacteria in many, but does not cause ulcers; spread orally or by emesis
  - Spiral shape allows burrowing
  - Secretes enzyme to neutralize gastric acid, allowing access to mucous lining
  - Weakens lining allowing acid penetration
  - Acid and bacteria irritate mucosa causing ulceration (NIDDK, 2002)

PUD

- Gastric-diffuse inflammation causes atrophic changes and decreased parietal cell mass reducing acid output and intrinsic factor
- Duodenal-inflammation of antrum of stomach and somatostatin loss causes increased acid output (NIDDK, 2002)

Gastric Ulcer

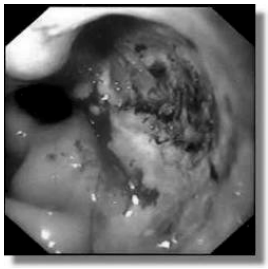


Healed Gastric Ulcer

PUD

- Manifestations
  - Dull, gnawing ache off and on for days to weeks
  - Occurs 2-3 hours ppostprandial
  - Occurs in middle of night when stomach is empty
  - Relieved by food and antacids
  - Other SX: wt. Loss, bloating, anorexia, eructation, N, V
  - (NIDDK, 2002)

Gastric Cancer



Hypertrophic Pyloric Stenosis (HPS)

- Definition-multifactorial inheritance of congenital gastric outlet obstruction due to hypertrophy of muscle surrounding pylorus
- Incidence- M>F; starts 3-10 wks
- Etiology-unknown. Associated with prenatal maternal stress.

HPS

- Pathophysiology-Local edema and inflammation in mucosa aggravate obstruction. Associated w decreased nitric oxide synthase contributes. Obstruction impedes gastric emptying with rising epigastric pressure and vomiting
- Manifestations-
  - Projectile or non-projectile vomiting without bile
  - May result in dehydration and alkalosis