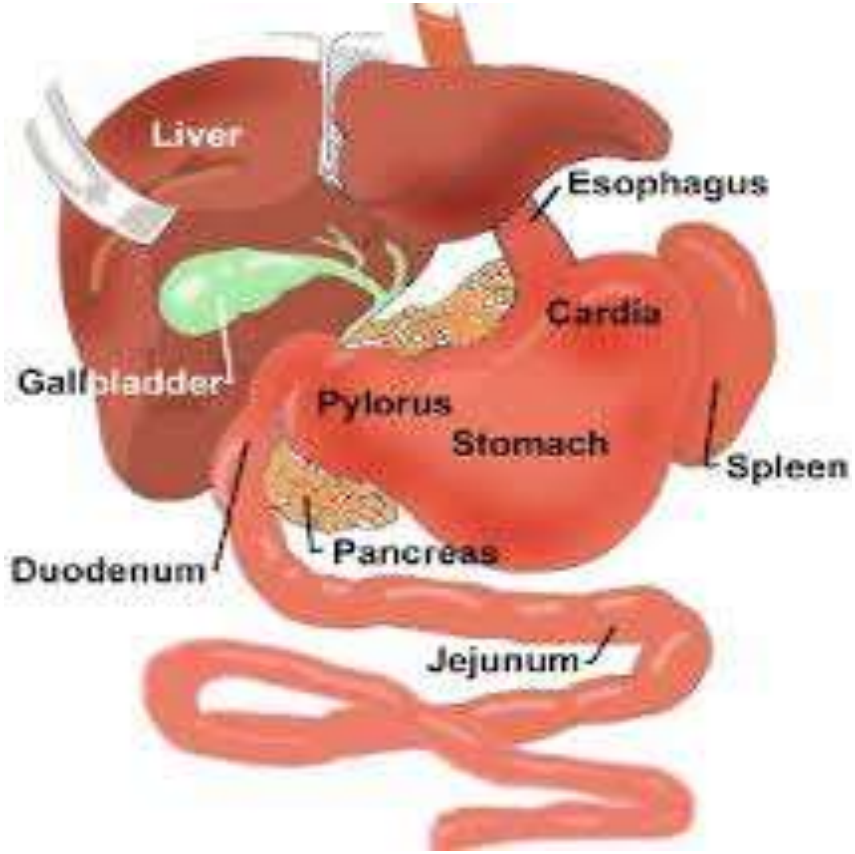
Management of patients with Gastric and Duodenal Disorders



Gastritis

- Its inflammation of the gastric or mucosa , may be acute (lasting several hours to a days), or chronic .
- **Acute gastritis is caused by** :

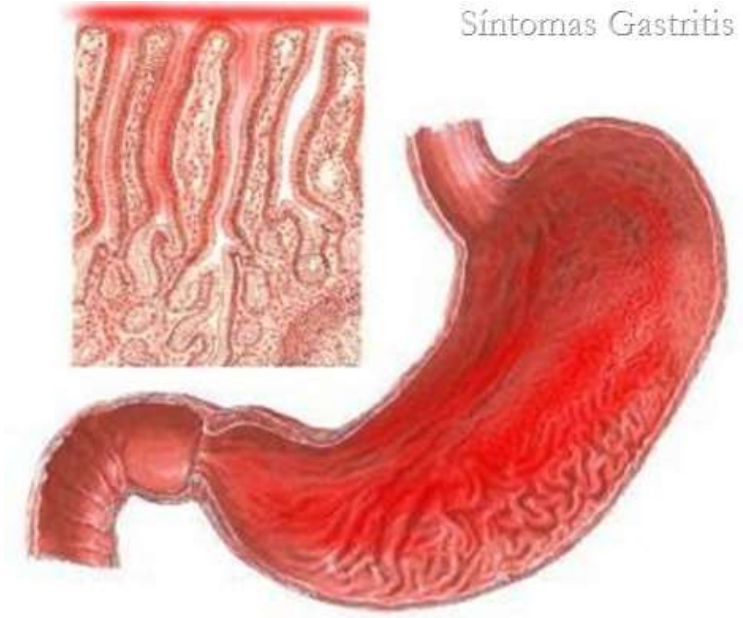
1. (food contamination)
2. over use of aspirin and NSAID
3. excessive Alcohol intake, radiation therapy

- **Chronic gastritis caused by** :

1. prolonged inflammation of the stomach caused by benign or malignant ulcer
2. H. pylori
3. Associated with autoimmune disease as pernicious anemia
4. Dietary factors such as caffeine , medication (NSAIDS).

Pathophysiology : Gastric mucosa membrane becomes edematous and hyperemic (congested with fluid and blood) ------- superficial erosion ----- ulcer ---- bleeding .

Gastritis. .*continue…*



Assessment and diagnostic findings ;

- Endoscopy
- Upper GI radiographic studies
- Histological studies of tissue
- H. pylori detection

Management :

- Avoid irritant food (alcohol. ……)
- Fluid Parenteral
- Dilution and neutralizing agent : if causes strong acid or alkaline ingestion .
- Avoid emetic or lavage in sever cases (avoid perforation) .
- NGT
- Sedatives and analgesic agent.
- Emergency surgery : to remove gangrenous perforated tissue .
- Gastrojejunostomy or gastric resection
- Chronic gastritis : managed by antibiotics , PPI

Gastritis. .*continue...*

Nursing Process :

Assessment : history , diet, physical examination . lab test, diagnostic result.

nursing diagnosis

- Anxiety
- Imbalanced nutrition
- Fluid volume imbalanced
- Knowledge deficit
- Acute pain

Nursing Intervention

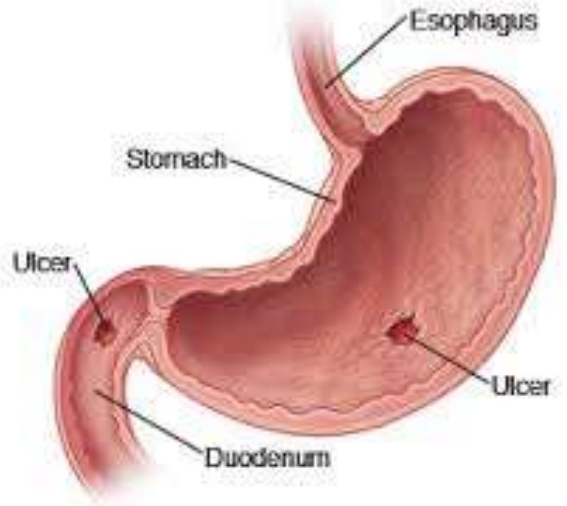
- reduce anxiety
- promote optimal nutrition
- promoting fluid balance
- relieving of pain

Gastric and Duodenal ulcers

Peptic ulcer :

It is an excavation **(** hollowed – out area) that forms in the mucosal wall of the stomach, in:

- the pylorus (opening between stomach and duodenum) ,
- in duodenum (first part of small intestine) most frequent other than stomach
- esophagus ulcer



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Pathophysiology

- Peptic ulcer occurs mainly in the gastroduodenal mucosa because this tissue cannot withstand the digestive action of gastric acid (HCL) and pepsin .
- The erosion is caused by the increased concentration or activity of acid –pepsin or by decrease resistance of mucosa
- The use of NSAID inhibits the secretion of mucous that protects the mucosa.
- Findings in peptic ulcer :

1. Hypersecretion of gastric juice,
2. Stress ulcer: acute mucosal ulceration of the duodenal or gastric area that occur after physiological stressful event .
3. Zollinger –Ellison syndrome ; consist of severe peptic ulcer , extreme gastric hyperacidity , and gastrin-secreting benign or malignant tumors

Comparison	Duodenal	gastric
Pain	mid – epigastrium and described as burning, cramping relived by food; usually occurs 2 – 4 hours after meals, possible at night	left epigastrium, burning, aching, gnawing discomfort not relived by food, usually occurs 1 – 2 hours after meals, rarely at night.
Nausea and vomiting	Not present usually	Present
Cause	H. Pylori	H. Pylori
Malignancy	Doesn't present malignancy	Malignancy
Complications	Rare such as pyloric stenosis and posterior penetration	Significant bleeding (25% of the cases), high mortality and morbidity than DU
Location	the first 2 cm of the duodenum, increased gastric emptying	the antrum, on lesser curvature, normal gastric emptying
Risk age	30-55 young	55-70 old

Diagnostic evaluation

Duodenal

- Endoscopy with cultures; looking for H.Pylori.
- Upper GI Barium studies
- Stool and serum studies

Gastric

- Hgb and Hct decreased (if anemic)
- Endoscopy to detect H. pylori
- Gastric acidity analysis
- Upper GI series: confirm the presence of ulcer

Treatment

A. Medications

- Antimicrobial therapy (treat H. pylori) ???
- Proton-pump inhibitors(PPI)
- H2 receptor antagonists
- Antacids

B. Diet

- ❑ Bland diet consisting of six small meals/ day.
- ❑ Eat meals slowly.
- ❑ Avoid acid-producing substances (caffeine, alcohol, highly seasoned foods, milk and creams???).
- ❑ Avoid stressful situations at mealtime.
- ❑ Plan for rest periods after meals.
- ❑ Avoid late bedtime snacks.

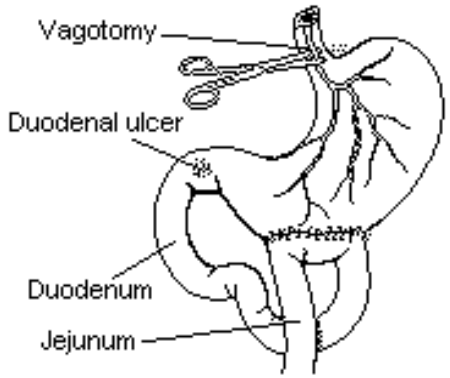
Nursing interventions

1. Administer medications as ordered. Watch out for side – effects of cimetidine like dizziness, rash, mild diarrhea, muscle pain and gynecomastia in males.
2. Provide nursing care for the client with ulcer surgery.
3. Prepare the client for diagnostic procedure for barium swallow and endoscopy
4. Provide client teaching and discharge planning

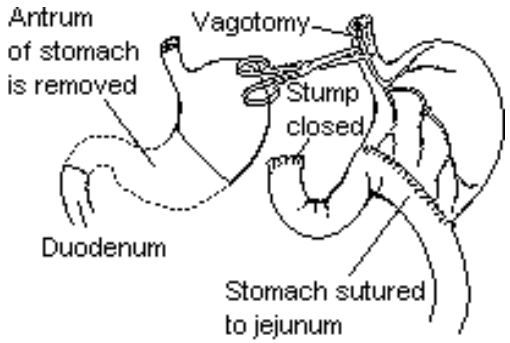
Ulcer surgery

- **Vagotomy**: cut of part of the vagus nerve innervating the stomach to decrease gastric acid secretion
- **Antrectomy**: removal of the antrum of the stomach to eliminate the gastric phase of digestion (contains the cells that secrete gastrin)
- **Pyloroplasty**: enlargement of the pyloric sphincter with acceleration of gastric emptying

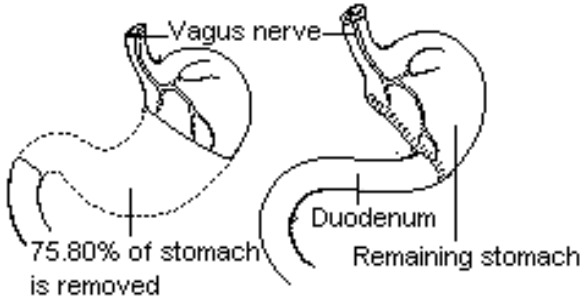
- **Gastroduodenostomy** (Billroth I): removal of the lower portion of the stomach with anastomosis of the remaining portion of the duodenum
- **Gastrojejunostomy** (Billroth II): removal of the antrum and distal portion of the stomach and duodenum with anastomosis of the remaining portion of the stomach to the jejunum



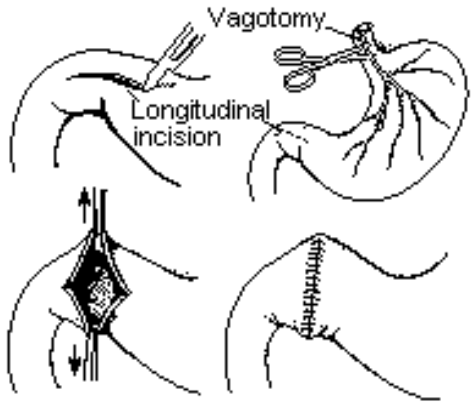
A. Gastrojejunostomy and vagotomy. The jejunum is anastomosed to the stomach to provide a second outlet of gastric contents. The severed vagus nerve reduces secretions and movements of the stomach (90% good results).



B. Antrectomy and vagotomy. The resected portion includes a small cuff of duodenum, the pylorus, and the antrum (about one half of the stomach). The stump of the duodenum is closed by suture, and the side of the jejunum is anastomosed to the cut end of the stomach.



C. Subtotal gastrectomy. The resected portion includes a small cuff of the duodenum, the pylorus, and from two thirds to three quarters of the stomach. The duodenum or side of the jejunum is anastomosed to the remaining portion of the stomach.



D. Vagotomy and pyloroplasty. A longitudinal incision is made in the pylorus, and it is closed transversely to permit the muscle to relax and to establish an enlarged outlet. This compensates for the impaired gastric emptying produced by vagotomy.

Post surgery care

- NPO until peristalsis returns
- Measure NG drainage accurately (reddish for the first 12 hrs.)
- Monitor for sign of leakage of anastomosis, e.g. dyspnea, pain, fever.
- oral fluids are initiated: Small, frequent feedings
- Monitor for early regurgitation: Eat less food at a slower pace
- Monitor weight regularly