



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF CARDIO PULMONARY PERFUSION CARE
TECHNOLOGY

COURSE NAME : GASTROENTEROLOGY

3RD YEAR

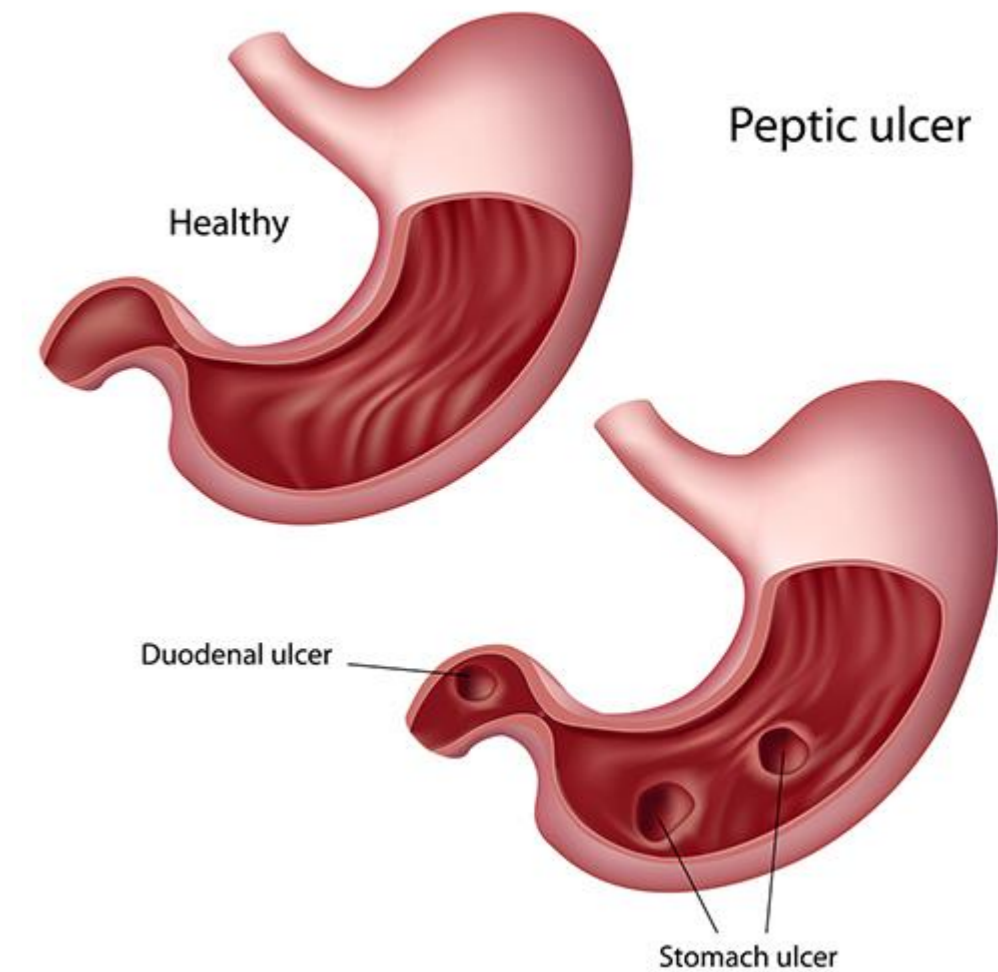
TOPIC : PEPTIC ULCER



INTRODUCTION



- Peptic Ulcer is a **lesion** in the lining (mucosa) of the digestive tract, typically in the **stomach or duodenum**, caused by the **digestive action** of **pepsin and stomach acid**.
- Lesion may subsequently occur into the lamina propria and submucosa to cause **bleeding**.
- Most of peptic ulcer occur either in the duodenum, or in the stomach
- Ulcer may also occur in the **lower esophagus** due to **reflexing of gastric content**
- **Rarely** in certain areas of the **small intestine**





ETIOLOGY/ RISK FACTORS

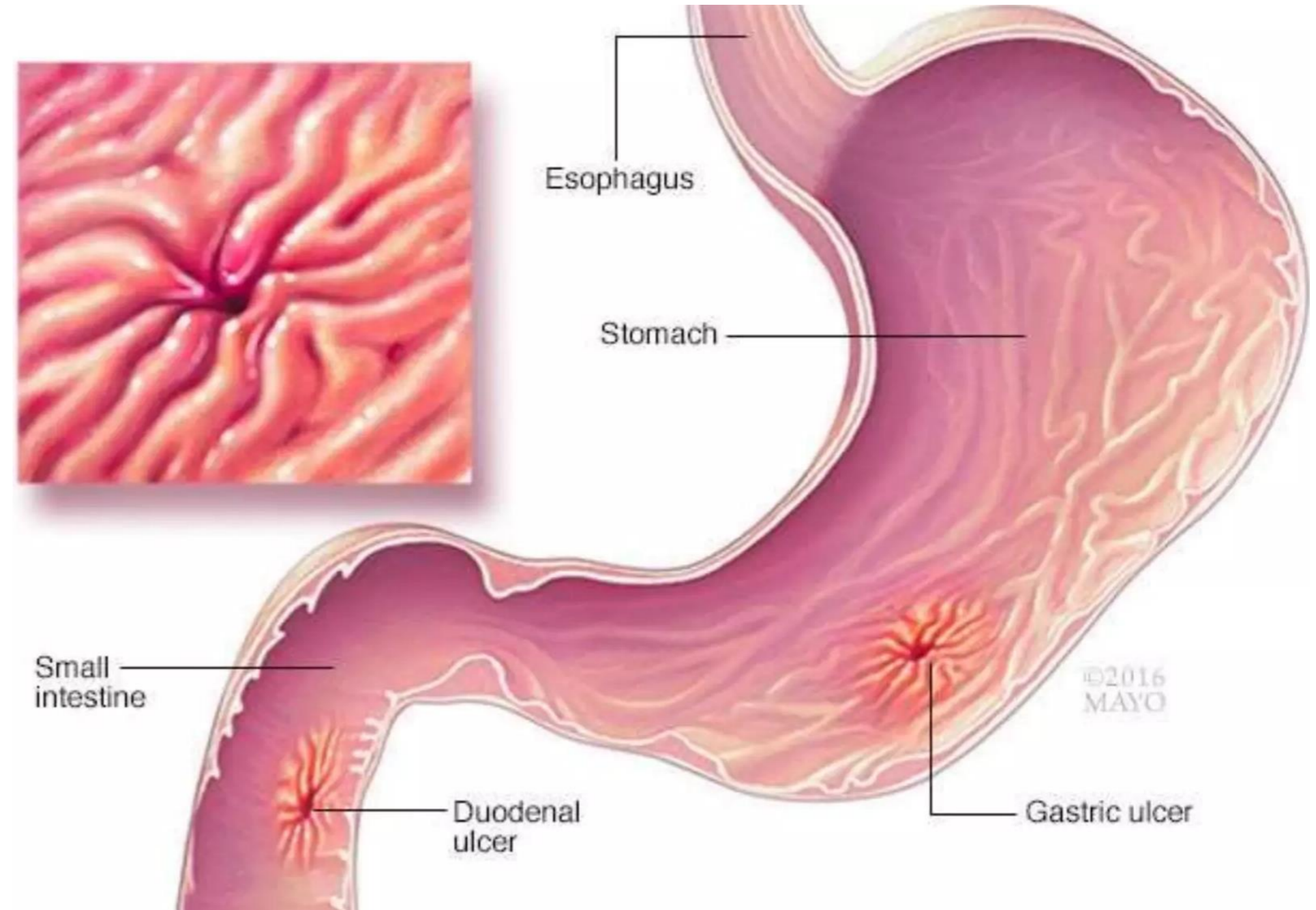


- Lifestyle
 - Smoking
 - Acidic drinks
 - Medications
- H. Pylori infection
 - Passed from person to person (fecal-oral route or oral-oral route)
- Age
 - Duodenal 30-40
 - Gastric over 50
- Gender
 - Duodenal: are increasing in older women
- Genetic factors
- Other factors: stress can worsen but not the cause



TYPES

- GASTRIC PEPTIC ULCER
- DUODENAL PEPTIC ULCER

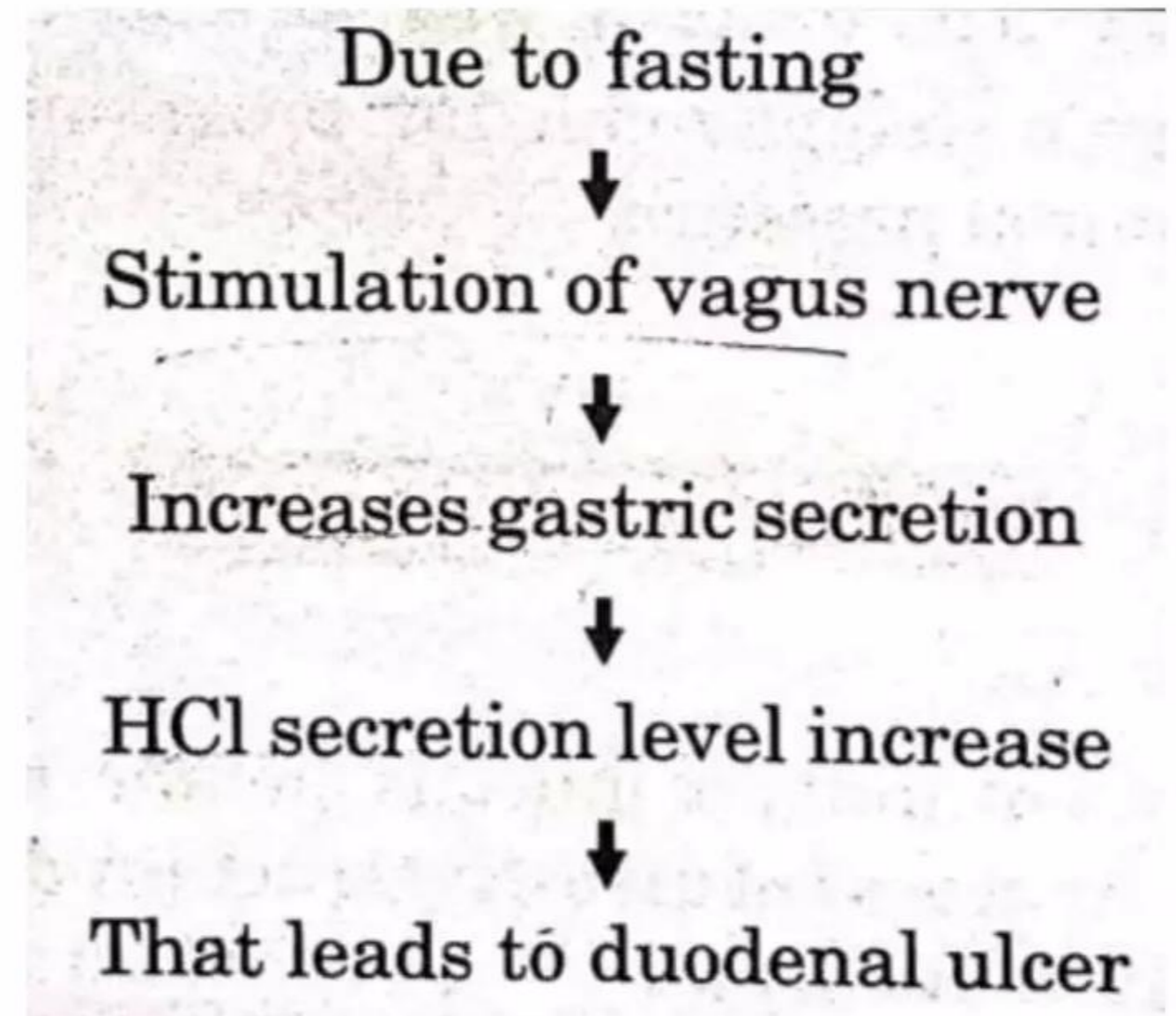
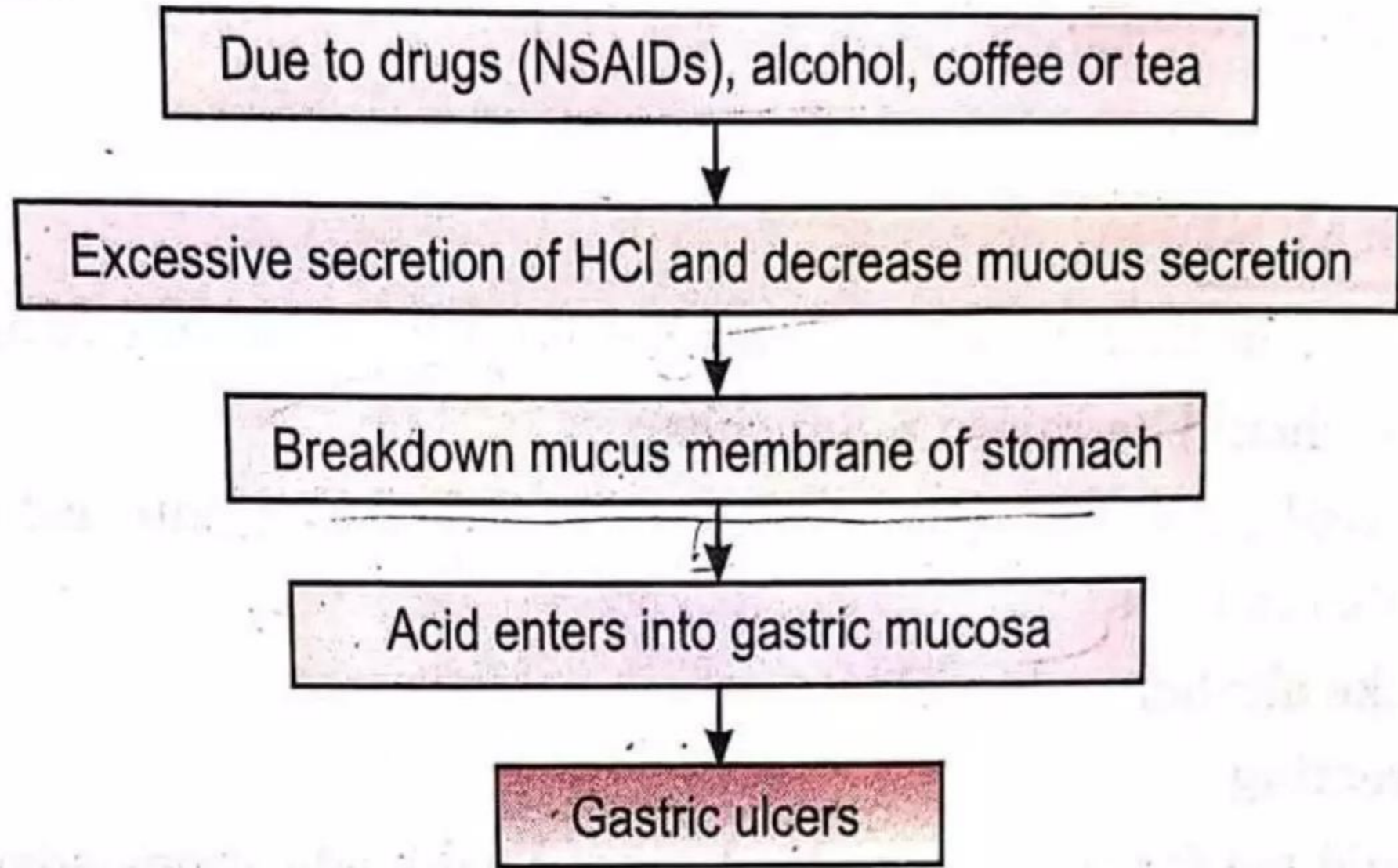




DIFFERENCE BETWEEN GASTRIC AND DUODENAL ULCERS



Gastric Ulcer	Duodenal Ulcer
1. They occur in stomach.	1. They occur in duodenum.
2. They cause by injury like substances, alcohol, aspirin, NSAIDs, drugs.	2. But these are cause by HCl secretion by vagus nerve stimulation in fasting period.
3. Pain in left epigastric region in gastric ulcer.	3. Pain in right epigastric region.
4. Nausea is common.	4. Rarely.
5. Vomiting with blood occurs in this case.	5. Stool with blood.
6. Weight loss.	6. No weight loss.
7. Pain starts just after taking food.	7. Onset of pain after 2-4 hrs. of taking food.
8. Pain is present while hungry.	8. Absent.
9. Pain is regular.	9. Not regular.
10. Malignancy is not common.	10. Common.



CLINICAL MANIFESTATIONS

- The most common symptom of a peptic ulcer is **burning abdominal pain** that extends from the navel to the chest, which can range from mild to severe.
- In some cases, the pain may wake you up at night.
- Small peptic ulcers may not produce any symptoms in the early phases.
- Other common signs of a peptic ulcer include:
 - Changes in appetite
 - Nausea
 - Bloody or dark stools
 - Unexplained weight loss
 - Indigestion
 - Vomiting
 - Chest pain





INVESTIGATIONS



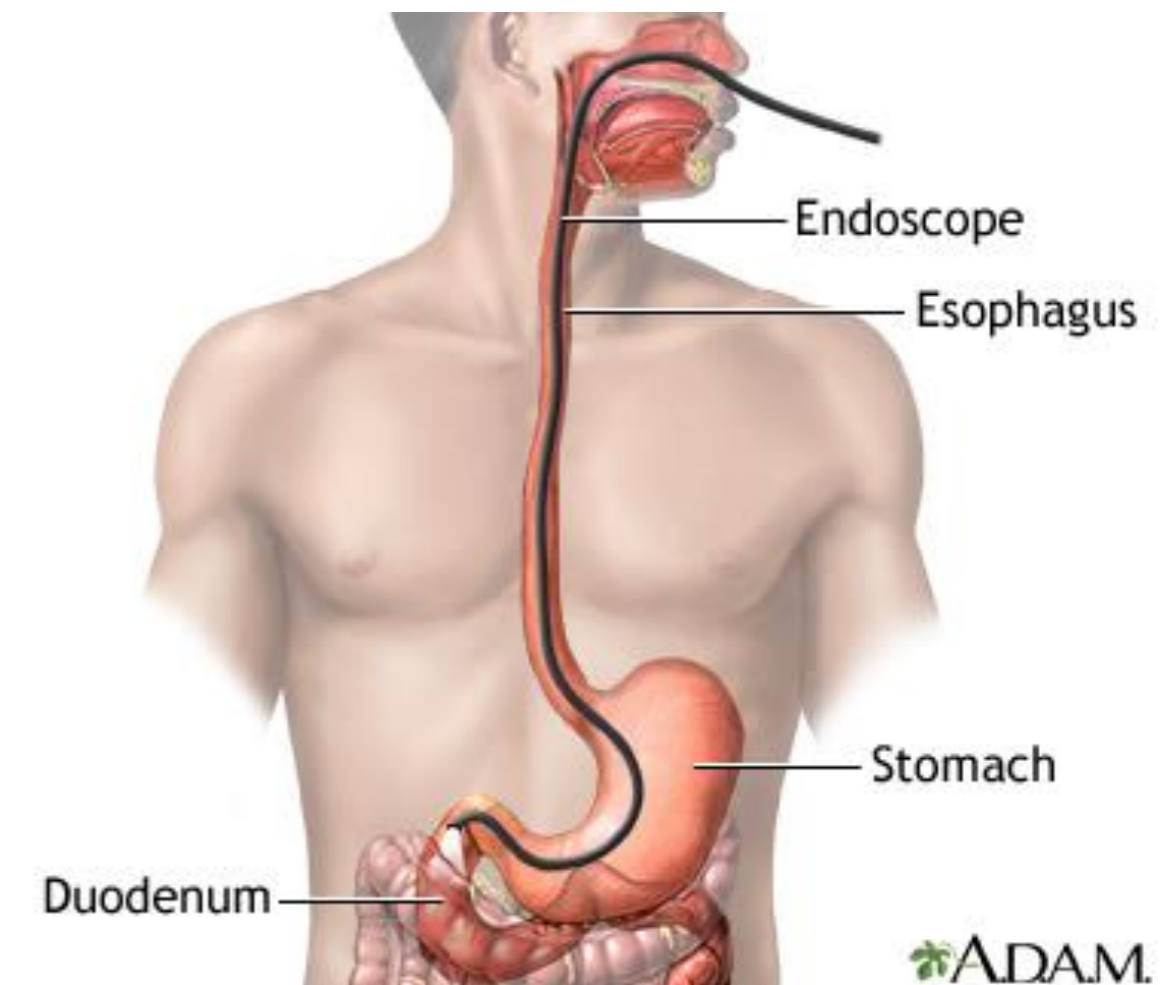
- Stool examination for fecal occult blood.
- Complete blood count (CBC) for decrease in blood cells.



DIAGNOSTIC TEST



- Esophagogastroduodenoscopy (EGD)
 - Endoscopic procedure
 - Visualizes ulcer crater
 - Upper gastrointestinal series (UGI)
 - Barium swallow
 - X-ray that visualizes structures of the upper GI tract
 - Urea Breath Testing
 - Used to detect H. Pylori
 - Client drinks a carbon-enriched urea solution
 - Exhaled carbon dioxide is then measured

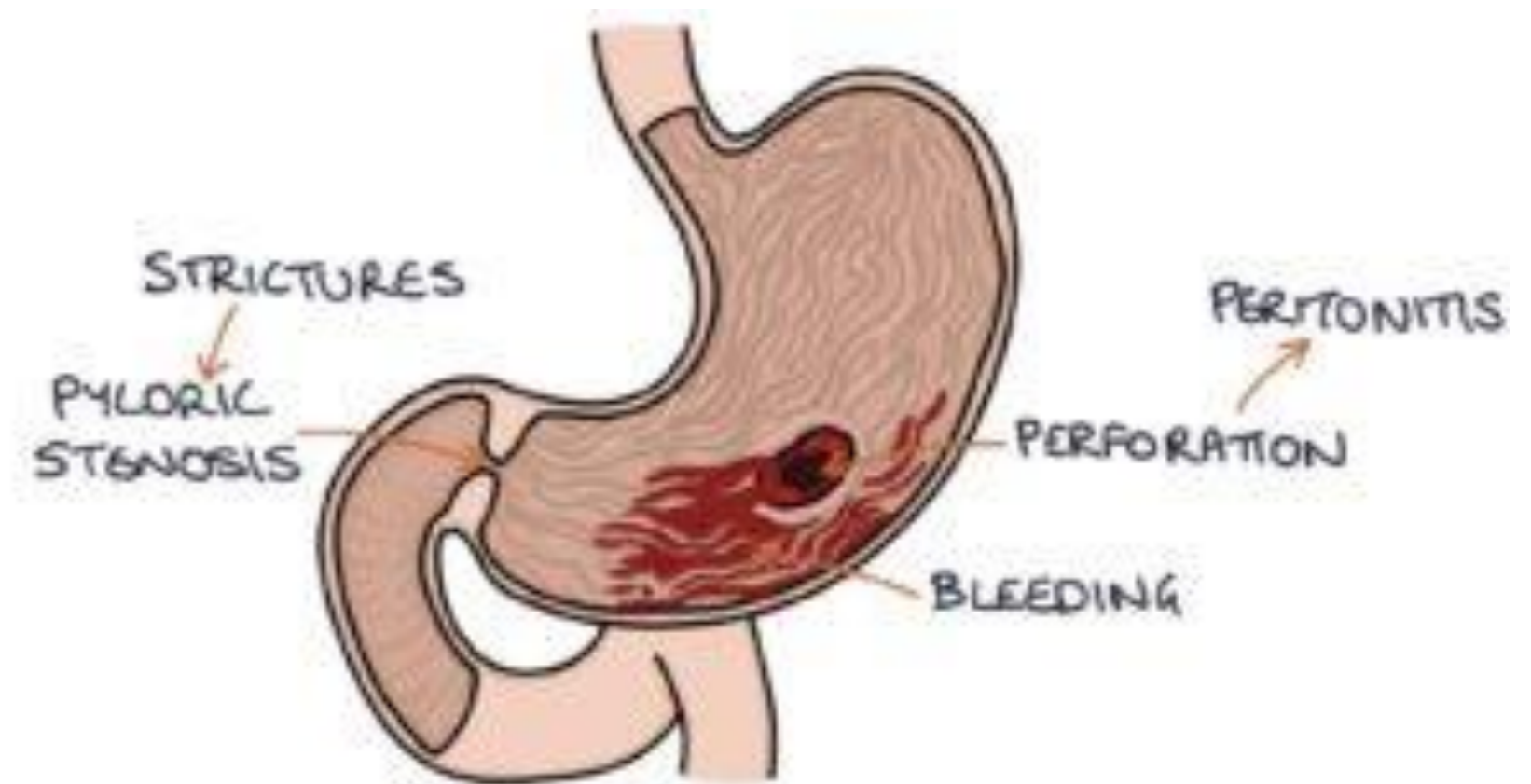




COMPLICATIONS OF PEPTIC ULCERS



- Perforation leading to peritonitis
- Haemorrhage by erosion of vessel in base
- Penetration of surrounding organ (liver/pancreas)
- Obstruction (by scarring) - pyloric stenosis
- (Cancer - rare event in true peptic ulcer)





MANAGEMENT



- LIFE STYLE MODIFICATION
- HYPOSECRETORY DRUG THERAPY
- H. pylori ERADICATION THERAPY
- SURGERY



LIFE STYLE MODIFICATION

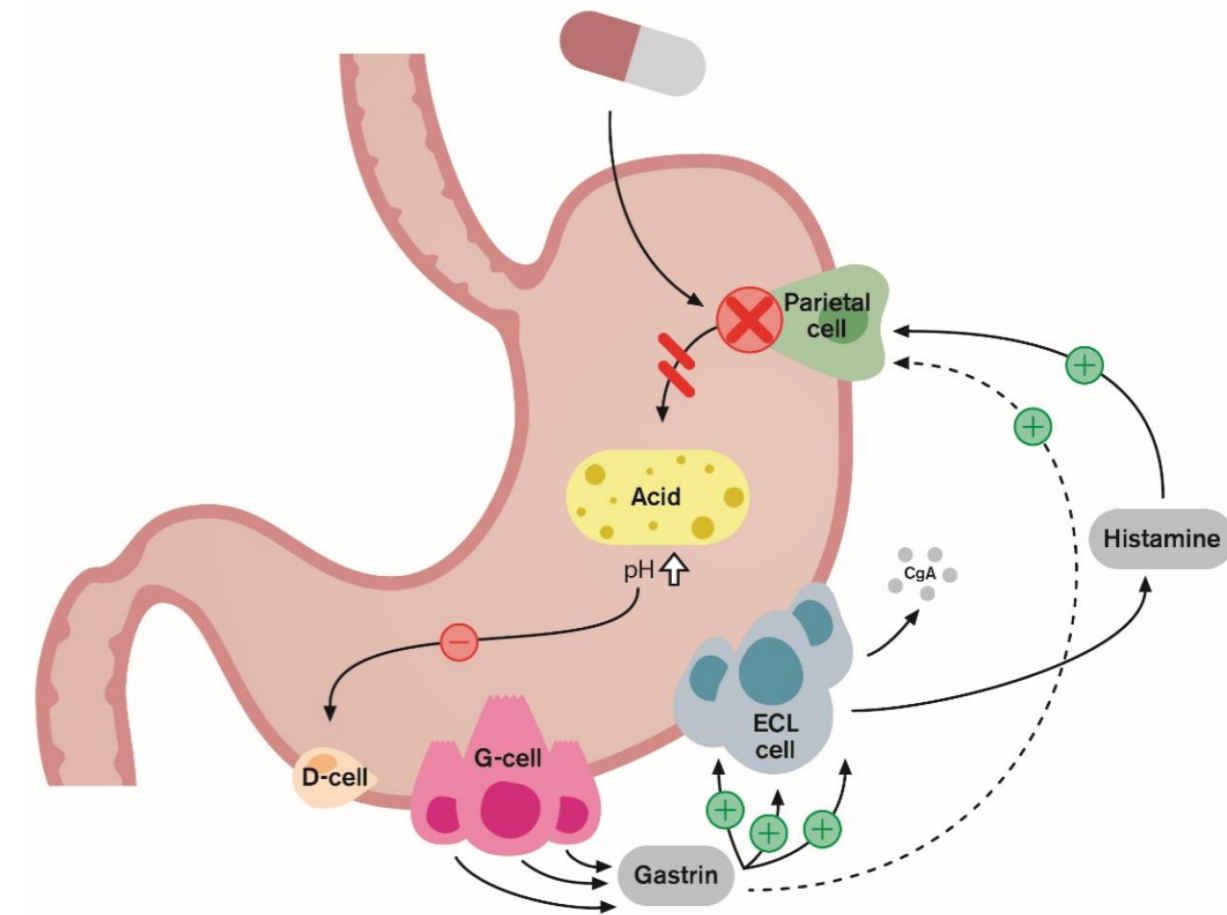


- Discontinue NSAIDS
- Smoking cessation.
- Alcohol cessation.
- Stress reduction.



HYPOSECRETORY DRUGS

- Proton Pump Inhibitors
 - Suppress acid production
 - Prilosec, Prevacid
- H₂-Receptor Antagonists
 - Block histamine-stimulated gastric secretions
 - Zantac, Pepcid
- Antacids
 - Neutralizes acid and prevents formation of pepsin (Maalox, Mylanta)
 - Give 2 hours after meals and at bedtime
- Prostaglandin Analogs
 - Reduce gastric acid and enhances mucosal resistance to injury
- Mucosal barrier fortifiers
 - Forms a protective coat
 - Carafate/Sucralfate
 - cytoprotective





H. PYLORI ERADICATION THERAPY



- Triple therapy: consisting of 2 antibiotics and PPI

Proton pump inhibitor.

2 Antibiotics:

- Metronidazole + Clarithromycin.
- Clarithromycin + Amoxicillin



SURGICAL TREATMENT



INDICATIONS

- ✓ Failure of medical treatment.
- ✓ Development of complications
- ✓ High level of gastric secretion and combined duodenal and gastric ulcer.
- Principle:
 - Reduce acid and pepsin secretion.



TYPES OF SURGICAL PROCEDURES



GASTROENTEROSTOMY

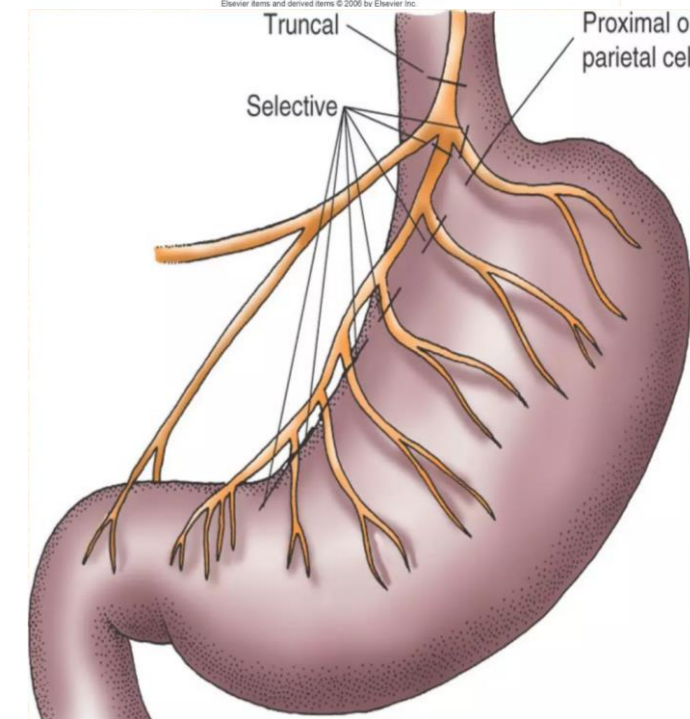
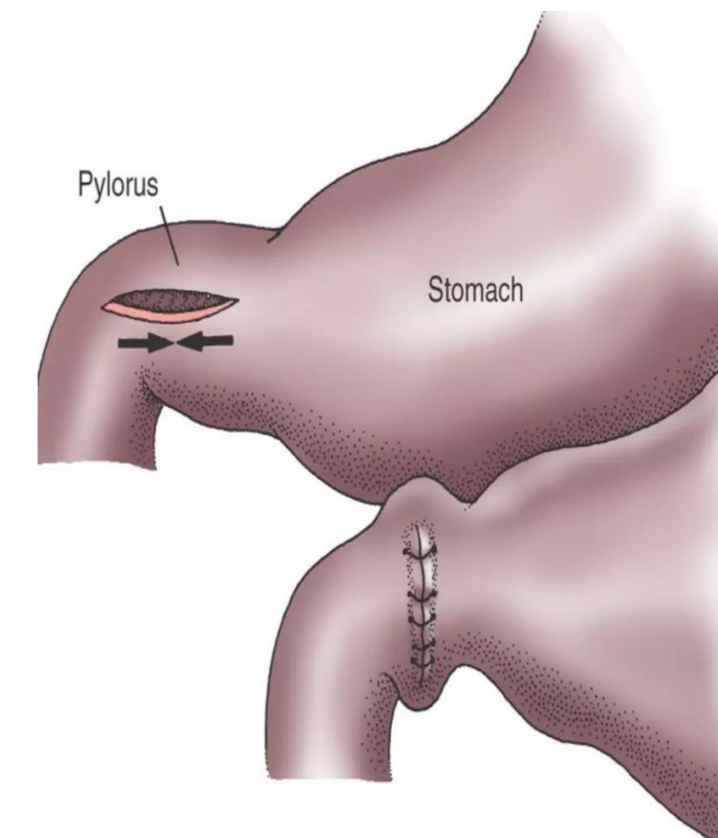
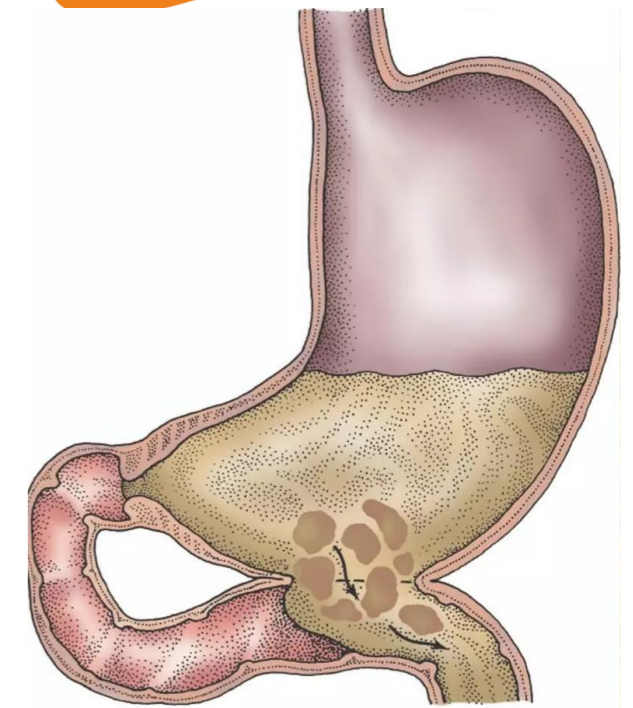
- Creates a passage between the body of stomach to small intestines.
- Keeps acid away from ulcerated area

VAGOTOMY

- Cuts vagus nerve
- Eliminates acid- secretion stimulus

PYLOROPLASTY

- Widens the pylorus to guarantee stomach emptying even without vagus nerve stimulation





REFERENCES



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- <https://youtu.be/o5bYc9FvsQQ>
- <https://www.slideshare.net/anieduugo/peptic-ulcer-57689431>
- <https://www.slideshare.net/AbhayRajpoot3/peptic-ulcer-227738386>



THANK YOU