Sub: Peptic Ulcer Disease

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Defination:

Peptic ulcer disease refers to painful sores or ulcers in the lining of the stomach or first part of the small intestine, called the duodenum. An ulcer in the stomach is known as a gastric ulcer while that in the first part of the intestines is known as a duodenal ulcer.

classification:

⊙ peptic ulcers classified based on region or location of illness —

i) Stomach (called gastric ulcer)

ii) Duodenum (called duodenal ulcer)

iii) Esophagus (called Esophageal ulcer)

iv) Meckel's Diverticulum (called Meckel's Diverticulum ulcer)

Epidemiology:

⊙ peptic ulcers are common and it has been estimated that up to 10% of the population has an ulcer and annual incidence of symptomatic peptic ulcer about 0.3%.

⊙ Duodenal ulcers are four times as common as gastric ulcer and occur mainly in duodenal cap.

⊙ Gastric ulcers occurs mostly in the lesser curvature of the stomach. These are benign, some time develop as a tumors (5%.)

⊙ Gastric malignacy is common in Japan, chile, Finland and Iceland than other world countries (because of environmental and diet factors)

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Etiology:

- Helicobacter pylori (H. pylori): a bacteria that can ca
  a stomach infection and inflammation.
- frequent use of aspirin, ibuprofen and other anti-inflammatory drugs (risk associated with this behaviour increase in women and people over the age of 60)
- Spicy food.
- Stomach acid.
- Smoking
- Alcohol. (Stomach layer destroy)
- By taking toxicity of drug analgesic drug mainly gastric increase.

more sacration, more digestion, more hungry at the time gastric ulcer will be analging they start to Stomach pain.

Signs and Symptoms:

- Burning abdominal pain.
- changes in ~~appetite~~ appetite.
- nausea.
- bloody or dank stools.
- unexplained weight loss.
- indigestion.
- vomiting.
- chest pain.

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Pathogenesis of peptic ulcer:

Gram negative bacteria produced heat shock proteins.

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cytokines, histamine, lipopolysaccharides, certain enzyme urease protease, fucosidase.

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Phospholipase.

cytokines ⟶ Leukocytes adhesion and inflammatory reactions starts.

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Damage mucosa of GIT

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Ulcer occurs.

Other factor also causes ulcer like-

- Drug Induced Ulcer. (Damage mucosal lining)
- Stress Induced Ulcer. (Increase gastric juice Secretions)
- Steroid Induced Ulcer. (inhibit phospholipase)
- Ulcer due to Genetic defects. (Increase cell demand as HCL secretions ↑)
- ZES (Zollinger - Ellison Syndrome) (Increase gastric juice Secretion)

Risk factor for increase the ulcers:

- Excessive drinking.
- Smoking or chewing tobacco.
- Serious illness
- Radiation treatment of the area.

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Diagnosis:

- History and PE.
- Laboratory test.
- Upper GI radiography.
- Flexible Upper endoscopy.
- H. pyloni testing.
- Invasive test.
- Noninvasive.

Treatment:

- Antacids. Sucralfate H2 receptor antagonist.
- PPI Treatment of H. pyloni infection. Lifestyle-changes Smoking cessation discontinuing NSAIDs and aspirin.
- avoiding coffee and alcohol.

complications:

Bleeding - chronic (minor, cause anaemia)
- acute (major, form affected vessel)

Perforation - mostly bulbus duodeni, anterion gastric.
- acute violent pain.
- bleeding can be present.

Penetration - of the ulcer deeply through whole wall into neighbor organ (pancreas, liver)

Stenosis - narrow of the lumen caused by scar, oedema or inflammatory infiltration after healing of the ulcer.
- rise only at pylonic localization.
- vomiting of huge volume of gastric content.

.es of peptic ulcer:

Duodenum: Finst portion, Antenion wall.

Stomach: Usually antrum, lesser curvature, antenion and posterion wall greater curvature.

In the margins of a gastroenterostomy.

In the duodenum, stomach or jejunum of patient with zollinger - Ellison Syndrome.

within or adjacent to a meckel's diverticulum.

Management:

- Life style modification
- Hyposecretory drug therapy.
- H. pylori Eradication therapy.
- Surgery.
- Life style modification →
  - Discontinue NSAIDs.
  - Smoking cessation.
  - Alcohol cessation.
  - Stress reduction.
- Hyposecretory drug therapy →
  - Proton pump inhibitors.
  - H_2 - receptor Antagonists
  - Antacids.
  - Prostaglandin Analogs.
  - Mucosal barrier fortifiers.
- H. pylori Eradication therapy.
  - Triple therapy.
    - Proton pump inhibitor
    - 2 Antibiotics.

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Surgical treatment ->

- Failure of medical treatment.
- Development of complications.
- High level of gastric secretion and combined duodenal and gastric ulcer.