Pathology 4th class **Lecture: 9**

Gastritis: Inflammation of the gastric mucosa and is usually a histological diagnosis. The term gastropathy is used when inflammatory cells are rare or absent (hypertrophic gastropathy).

Various ways of classifying gastritis

A. Depending on the inflammatory cells and duration

- Acute gastritis shows predominately acute inflammatory cells
- Chronic gastritis shows mononuclear cell (lymphocytes, plasma cells) infiltration

– Helicobacter pylori gastritis

– Autoimmune gastritis

– Others

B. Depending on the segment of involved stomach

- Antral-predominant gastritis

-Corpus-predominant gastritis

- Pangastritis

C. Depending on the absence or presence of premalignant stages

- No atrophic
- Atrophic gastritis may progress to carcinoma

-Acute gastritis is a transient inflammation of gastric mucosa.

Etiology

- **Drugs**: Aspirin, non steroidal anti-inflammatory drugs (NSAIDs) and other drugs (e.g. iron preparations)
- **H. pylori**
- **Alcohol**
- **Chemicals**

- **Severe physiological stress** (e.g. burns)
- **Bile reflux** (e.g. following gastric surgery)
- **Viral infections** (e.g. cytomegalovirus—CMV).

Chronic gastritis

Chronic gastritis is chronic inflammation of stomach associated with mucosal injury. Microscopically, there is an increase in inflammatory cells in the lamina propria.

Causes: Common cause of chronic gastritis is due to infection by *Helicobacter pylori*. Other causes include autoimmune gastritis and less common causes such as radiation injury, chronic bile reflux and mechanical injury.

Peptic ulcer

Definition: Peptic ulcer is defined as a chronic mucosal ulceration/defect that penetrates the muscularis mucosae. It usually affects the duodenum (duodenal ulcer) or stomach (gastric ulcer).

Peptic ulcer disease (PUD) is one of the complications of chronic gastritis. It is most often associated with colonization with H. pylori and H. pylori-induced chronic gastritis (with hyperchlorhydria), NSAIDs, or cigarette smoking.

Complications of Gastric Ulcers

Bleeding: Most common complication of peptic ulcer. Chronic blood loss may lead to iron deficiency anemia.

Perforation: Develops in ~ 5% of patients and is the most common complication of gastric ulcer.

Pyloric obstruction: It is secondary to either edema or scarring.

Development of combined ulcers: In the stomach and duodenum

in the same patient.

Gastric adenocarcinoma

Adenocarcinoma is the most common malignancy of the stomach. It comprises ~ 90% of all gastric cancers.

Risk factors of gastric carcinoma

A. Environmental factors

1. *H. pylori* infection.
2. Dietary/nutritional: Nitrites derived from nitrates (water preserved food), smoked foods and excess of salt (salted, pickled vegetables, chili peppers), and deficiency of fresh fruit, vegetables, vitamins A and C, refrigeration
3. Low socioeconomic status: Low fat or protein consumption, high complex carbohydrate consumption

B. Host factors/predisposing conditions

1. Chronic gastritis (especially atrophic gastritis), pernicious anemia.
2. Partial gastrectomy.
3. Gastric dysplasia and adenomas more than 2 cm

C. Genetic factors

Blood group A, family history of gastric cancer, familial gastric carcinoma syndrome .