

CA stomach

- Adenocarcinoma is the most common malignancy of stomach
- distal gastric Adenocarcinoma occurs in the gastric Antrum ^{Prox PUD}
→ lesser curvature.
- Early symptoms referable to chronic gastritis & PUD
only in Advanced stage - clinical signs appear → weight loss, Anemia (IDA)

PATHOGENESIS

GENETICS:

- Familial gastric carcinoma (Rare)

It is strongly associated with germline loss of function mutation in tumor suppressor gene CDH1, which encodes the cell Adhesion protein E-cadherin.

- Diffuse gastric Carcinomas:

Loss of function mutation in CDH1 is About 50% of sporadic diffuse gastric tumor.
E-cadherin expression is drastically decreased.

↓ Thus E-cadherin loss is a key step in the development of diffuse gastric cancer.

- Intestinal-type gastric cancer:

Strong mutation Result in Tcd Wnt pathway

These include ^{mutate} APC tumor suppressor gene & gain of function mutation in gene encoding β -catenin.

- Includes TGF- β signaling, BAX (Apoptosis).

FAP patient with germline APC mutation or have ↑ Risk of CA stomach.

- Blood group A ↑ Risk.

ENVIRONMENTAL FACTORS:

→ H. pylori, PUD → (CagA strain)

- N-nitroso compound & benzo pyrene used as preservative in food.

- Smoked & salted food.

HOST FACTORS

- Chronic gastritis
- Barrett's Esophagus
- Metaplasia
- Gastric Adenoma

... to chronic gastritis ...
... Barrett's esophagus ...
... metaplasia ...
... gastric adenoma ...

PATHOGENESIS

- Gastric cancer is a multifactorial disease. It is caused by a combination of genetic and environmental factors.
- The most common genetic factor is a mutation in the *p53* gene, which is involved in cell cycle regulation.
- Environmental factors include diet, smoking, and alcohol consumption.
- Helicobacter pylori infection is a major risk factor for gastric cancer.
- Gastric cancer is more common in certain populations, such as those in East Asia and Latin America.
- The disease is often asymptomatic in the early stages, leading to late diagnosis and poor prognosis.
- Treatment options include surgery, chemotherapy, and radiation therapy.
- Early detection through endoscopy and biopsy can improve outcomes.
- Research is ongoing to identify new biomarkers and therapeutic targets.