

Gastrointestinal Cancer

Gastrointestinal cancers include colorectal cancer, esophageal cancer, stomach cancer, pancreatic cancer, and anal cancer.

Colorectal cancer (CRC) is the most common gastrointestinal cancer. It is the third most common cancer in men and women worldwide. According to international screening guidelines, all adults over 50 years of age should undergo a screening colonoscopy every 10 years depending on the findings. Risk factors include consumption of red meat and alcohol. Symptoms include alternating diarrhea and constipation, rectal bleeding, abdominal pain, and anemia. Diagnosis is made by tissue biopsy of the primary tumor through colonoscopy. Surgical resection offers high cure rates in the early stages. Adjuvant therapy offers a survival benefit in patients with lymph node involvement. For metastatic disease, biomarkers (mutations in genes such as KRAS, NRAS, BRAF, microsatellite instability) are essential for optimal treatment selection.

Gastric and esophageal cancer are the 5th and 8th most common cancers respectively. Gastric cancers are usually adenocarcinomas, and risk factors include obesity, salt intake, and *Helicobacter pylori* infection. Pathology of esophageal cancer can be either adenocarcinoma or squamous cell carcinoma. Diagnosis is made by biopsy of the lesion through endoscopy. In early stages, surgery is the mainstay of treatment, and preoperative chemotherapy or chemoradiotherapy (for esophageal cancers) improves survival. In advanced stages, prognosis is generally poor. Treatment for metastatic gastric/esophageal cancer is determined based on biomarkers such as PD-L1 expression, HER2 expression and microsatellite instability.

Pancreatic cancer is the 4th most common cause of cancer-related death worldwide. It is a cancer with a poor prognosis, as over 50% of patients are diagnosed with metastases. Patients who undergo surgery in early stages have a 5-year survival of 25%. Poor prognosis is mainly due to drug resistance owing to the presence of stroma, complex tumor microenvironment and multiple gene mutations. For metastatic disease, chemotherapy is the basis of treatment.