

CLINICAL MANIFESTATIONS of GIT dysfunction. Vomiting

- *is the forceful emptying of stomach and intestinal contents through the mouth*
- the vomiting center lies in *the medulla oblongata* and includes the reticular formation and tract of solitarius nucleus

The fourth ventricle of the brain hosts the vomiting center. The floor of the fourth ventricle contains an area called the chemoreceptor trigger zone (CTZ).

- The vomiting center initiates and controls the act of emesis, which involves a series of contractions of the smooth muscles lining the digestive tract, stimulation of the vomiting center occurs *directly by irritants or indirectly*
- the sudden expansion of the stomach and duodenum in the sudden accumulation of contents or Direct-irritation of the stomach mucosa by toxic substances
- stimulating the vomiting center, for example. metabolic acidosis or brain lesions
- Indirect-reflex response to intense pain -trauma of ovary, testis, uterus, bladder and kidneys

DYSPEPSIA (malfunction of digestion)

- Dyspepsia, also known as indigestion, refers to discomfort or pain that occurs in the upper abdomen, often after eating or drinking,
- Causes :-
 - 1- overeating or eating quickly
 - 2- Fatty, greasy or spicy foods.
 - 3- too much caffeine, alcohol, chocolate or carbonated beverages.
 - 4- smoking.
 - 5- certain antibiotics, pain relievers and iron supplement.
- Dyspepsia can be divided into organic and functional
- Organic causes :- peptic ulcer, gastritis, gastroesophageal reflux, pancreatic or biliary disorders, intolerance to food or drugs, infectious or systemic diseases, and gastric and esophageal cancers
- Symptoms of dyspepsia:-
 - 1- pain or burning in the stomach, bloating, excessive belching, Or nausea after eating
 - 2- an early feeling of fullness when eating (satiety).
 - 3- stomach pain that occurs unrelated to food or goes away after eating.

DIARRHEA

- Diarrhea — **loose, watery and possibly more-frequent bowel movements** — is a common problem. It may be present alone or be associated with other symptoms, such as nausea, vomiting, abdominal pain or weight loss
- an ***increase in the frequency*** of defecation and the ***fluid content, volume, and weight*** of feces.
- ***Clinical manifestation***
- -can be *acute or chronic*
- -*systemic effects of prolonged diarrhea* –dehydration, electrolyte imbalance (hyponatremia, hypokalemia), metabolic acidosis, and weight loss
- -*manifestations of acute bacterial or viral infection* -fever, with or without cramping pain, bloody stools
- -*Steatorrhea*(fat in the stools) and diarrhea are common signs of mal absorption syndrome

Diarrhea may be caused by many things, including:

- A bacterial infection.
- A virus.
- Trouble digesting certain things (food intolerance)
- Food allergy (such as celiac disease, gluten allergy)
- Parasites that enter the body through food or water.
- A reaction to medicines.
- An intestinal disease, such as inflammatory bowel disease
- A problem with how your stomach and bowels work (functional bowel disorder), such as irritable bowel syndrome
- A result of surgery on the stomach or gall bladder
- Recent antibiotic use
- Metabolic conditions such as thyroid problems.

CONSTIPATION

- less frequent defecation i.e. fewer than three bowel movements per week
- smaller stool volume
- hard stools
- difficulty passing stools (straining)
- feeling of bowel fullness and discomfort
- Some times may be there is blood in the stools
- -often the result of a large number of diseases

- ***Clinical manifestation of chronic constipation:-*** (two of the following for at least 3 months)
- 1)straining with defecation at least 25% of the time
- 2)lumpy or hard stools at least 25% of the time
- 3)sensation of incomplete emptying at least 25% of the time
- 4)manual maneuvers to facilitate stool evacuation for at least 25% of defecations
- sensation of anorectal blockage

GIT Pain or Abdominal pain

- There are three main types of abdominal pain;- visceral, parietal, and referred pain .
- Abdominal **pain** can be caused by a number of things, including indigestion, a stomach virus, food poisoning, gas, food allergies, constipation, Less serious causes of abdominal pain include **constipation, irritable bowel syndrome, food allergies, lactose intolerance, food poisoning, and a stomach virus**. Other, more serious, causes include appendicitis, an abdominal aortic aneurysm, a bowel blockage, cancer, and gastroesophageal reflux
- Pain in the abdomen may be experienced as **aching, stabbing, burning, twisting, cramping, dull, or a gnawing pain**.
- **How do you relieve abdominal pain?**
 1. Bowel rest. Stop eating, or only eat easy-to-digest foods like crackers or bananas.
 2. Hydration. Drink plenty of water or a hydration formula.
 3. Heat therapy. Try a warm water bottle or a soak in the bath.
 4. Home remedies.

Gastrointestinal bleeding

often the result of a large number of diseases

Bleeding in the lower GIT (jejunum, ileum, colon, rectum)	Bleeding in the upper GIT (esophagus, stomach, duodenum)
inflammation	esophageal varices
tumors	hemorrhagic gastritis
hemorrhoids	gastric and duodenal ulcers

INFLAMMATORY BOWEL DISEASE

- ***Ulcerative colitis*** and ***Crohn disease*** are *chronic, relapsing inflammatory bowel diseases (IBDs)* of unknown origin

both diseases are associated with *genetic factors, alterations in epithelial cell barrier functions, immune pathology* related to abnormal T-cell reactions to micro flora and other luminal antigens, and varying phenotypes

ulcerative colitis a long-term condition where the colon and rectum become inflamed, small ulcers can develop on the colon's lining, and can bleed and produce pus.

Crohn disease is an inflammatory bowel disease (IBD) effect small intestine. It causes swelling of the tissues and can lead to abdominal pain, severe diarrhea, fatigue, weight loss, and malnutrition