

Diarrhea

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Diarrhea

- **Definition:**

It is an increase in frequency and liquidity of stools.

- **Types:**

- Acute diarrhea.

- Chronic diarrhea.

Acute diarrhea

- it is with acute onset and present for less than 3weeks and is sub classified into:
 - **Non-inflammatory Diarrhea:**
 - Watery, non-bloody diarrhea associated with peri-umbilical cramps, bloating, nausea, or vomiting may be voluminous and result in dehydration, no fever or evidence of blood or fecal leucocytes.

Acute diarrhea

It may be due to:

- Toxin-producing bacteria [enterotoxigenic Escherichia coli (ETEC), Staphylococcus aureus, Bacillus cereus, Clostridium perfringens, V.cholera].
- Viral infections: Rota virus and Norwalk virus.
- Protozoal infections: Giardia and cryptosporidium.

Acute diarrhea

➤ Inflammatory Diarrhea:

- often associated with systemic symptoms including fever, bloody diarrhea, Lt lower quadrant cramps, fecal leucocytes.

It may be due to:

- Invasive organism (shigellosis, salmonellosis, Campylobacter, Yersinia, amebiasis)
- Bacterial toxin (C. difficile, Enterohemorrhagic E coli 0157:H7).
- Intestinal ischemia, inflammatory bowel diseases and radiation colitis

Chronic Diarrhea

- It is diarrhea lasting more than 3 weeks, It is sub-classified into:
 - **Osmotic diarrhea:** decrease of stool volume with fasting, and increase of osmotic gap.

May be due to:

- lactose intolerance.
- Medications as (sorbitol, lactulose, magnesium laxatives, or sodium sulfate laxatives).

Chronic Diarrhea

- **Secretory diarrhea:** it is large in volume with little change with fasting, and normal stool osmotic gap.

May be due to:

- Hormonal secretion as in carcinoid syndrome, Zollinger-Ellison syndrome, vipoma.
- Bile salt malabsorption as in ileal resection, Crohn's disease.

Chronic Diarrhea

- **Malabsorptive disorders:** characterized by weight loss, anemia, hypoalbuminemia, fecal fat greater than 7-10 g/24h stool collection.

May be due to:

- Intestinal mucosal diseases: celiac sprue, whipple disease, eosinophilic gastroenteritis, small bowel resection.
- Pancreatic diseases: chronic pancreatitis, pancreatic carcinoma.
- Small bowel bacterial overgrowth.

Chronic Diarrhea

➤ **Inflammatory conditions:**

- Characterized by abdominal pain, fever, weight loss, and hematochezia.
- Diarrhea is present in the majority of patients with inflammatory bowel disease (eg, ulcerative colitis, Crohn's disease, microscopic colitis, radiation enteritis).

➤ **Motility disorders:**

- Abnormal intestinal motility secondary to systemic disorders (DM, scleroderma, hyperthyroidism) or post-surgery (vagotomy or gastrectomy) or IBS.

Investigations

- Blood tests: CBC, ESR, CRP, IGs, albumin, electrolytes,
- Stool examination for ova and parasites.
- Imaging Studies.
- Thyroid function tests.
- Fecal leukocytes and stool lactoferrin.
- Stool osmolarity and quantitative fecal fat.
- Stool and blood culture.
- Clostridium difficile toxin.
- Endoscopy and Biopsy.

Treatment

- Treatment of Dehydration.
- Ant diarrheal Drugs.
- Antibiotic Therapy (empiric, specific) and anti-parasitic drugs.
- Management of the cause.

Dysentery

- It is passage of blood and mucus with stools.

it is caused by:

- **Infectious causes:**
 - Shigelloses (bacillary dysentery).
 - Entameaba histolytica.
 - Schistosomiasis.
 - Malignant malaria.
 - Balantidium coli.
- **Non-infectious causes:** e.g. Ulcerative colitis

Tenesmus

- Abnormal frequent desire to defecate, with sensation that is evacuation is incomplete.
- It indicate that lesion in the rectum as amebic dysentery, cancer rectum.

THANK YOU