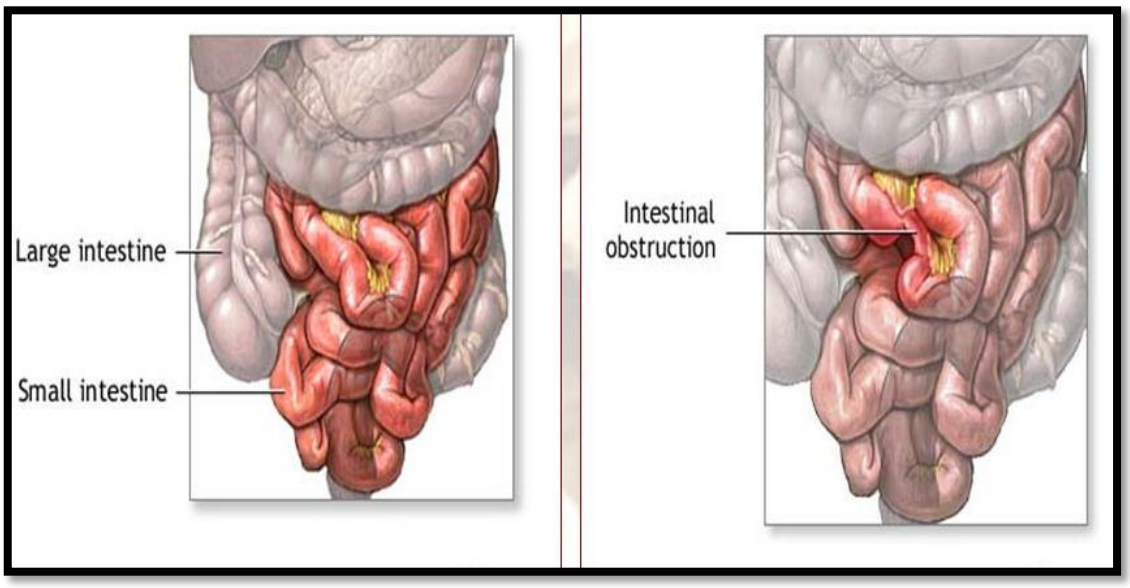
INTESTINAL OBSTRUCTION AND ITS MANAGEMENT

DEFINITION:

Intestinal obstruction is the partial and complete blockage of bowel (small and large) that prevent the normal flow of intestinal contents through the intestinal tract.



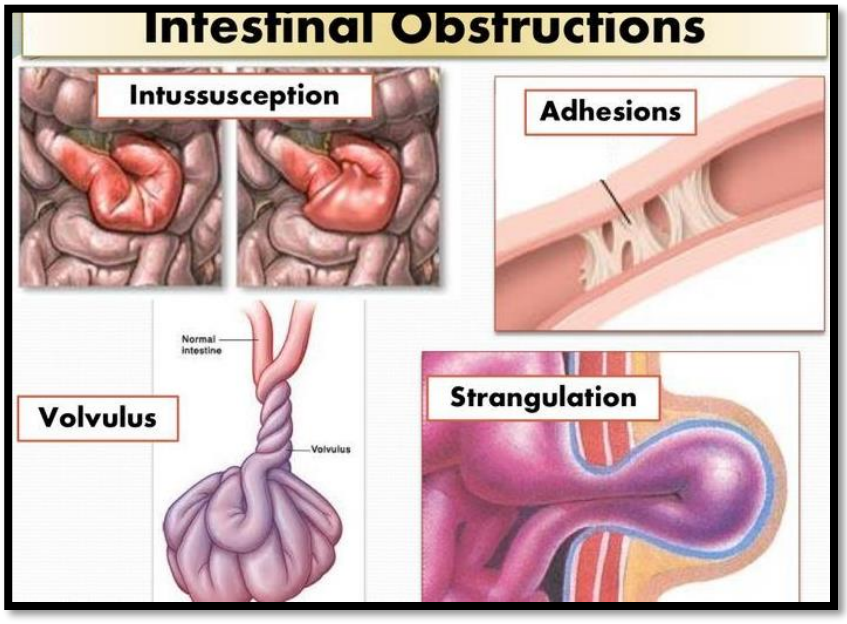
PREVALANCE OF DISEASE IN INDIA:

Incidence of acute intestinal obstruction in adults in eastern India. Out of 3192 patients, 41 adults with acute intestinal obstruction were admitted for management. Majority of the patients were between 30 – 60 yrs with a maximum incidence in 5th decade of life.

TYPES:

1. **Mechanical Obstruction: -** Mechanical Obstruction may be caused by pressure on the intestinal wall. Examples are intussusceptions, polypoid tumors and neoplasms, stenosis, strictures, adhesions, hernias and abscesses.

2. **Functional Obstruction: -** Functional obstruction can be caused when intestinal musculature cannot propel the contents along the bowel. Examples are amyloidosis, muscular dystrophy, endocrine disorders such as diabetes mellitus or neurological dysfunction like Parkinson's disease.



ETIOLOGY/ RISK FACTORS:

Most bowel obstructions occur in the small intestine. The causes are-

1. Adhesions- loops of intestine become adherent to areas that heal slowly or scars after abdominal surgery.
2. Hernias- Protrusion of intestine through a weakened area in the abdominal muscle or wall
3. Neoplasms
4. Intussusception- One part of intestine slips into another part
5. Volvulus- Bowel twists and turns on itself

Most obstruction in large bowel occur in sigmoid colon. The most common causes are-

1. Carcinoma
2. Diverculitis
3. Inflammatory bowel disese
4. Benign tumors

PATHOPHYSIOLOGY:

Due to etiological factors

⇓

Blockage in the intestine

⇓

Intestinal contents, fluids and gas accumulate above the obstruction

⇓

Occurs abdominal distention and retention of fluid

⇓

Increase gastric distension pressure within the intestinal lumen

⇓

Decrease in capillary pressure

⇓

Cause edema and necrosis and eventually rupture and perforation of intestinal wall

⇓

Peritonitis

CLINICAL MANIFESTATION:

1. Crampy abdominal pain that is wavelike and colicky
2. Pass blood and mucus but no fecal matter and no flatus
3. Vomiting- stomach content, bile stained content of jejunum and duodenum
4. Dehydration
5. Drowsiness

6. Generalize malaise
7. Distended abdomen
8. Hypovolemic shock

DIAGNOSTIC EVALUATION:

1. History taking
2. Physical examination
3. Abdominal X-Ray
4. CT Scan- Abnormal content of gas, fluids or both in intestine
5. Laboratory studies- electrolyte study, CBC to reveal loss of plasma volume and possible infection

MANAGEMENT:

A. Nutritional Management:-

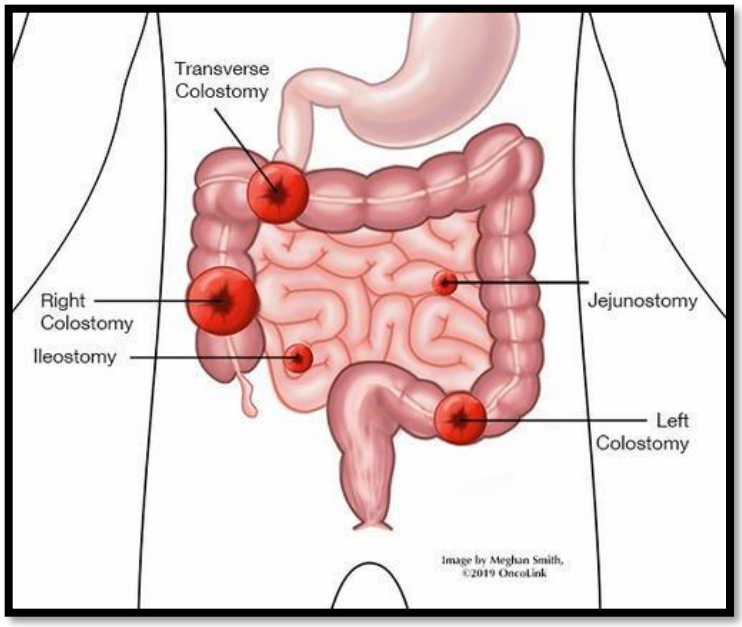
1. Advise patient to chew food well.
2. Avoiding large amounts of high-fiber foods, such as wholegrain cereals and nuts.
3. Cutting down on caffeine, which can irritate the bowel.
4. Avoiding tough or stringy foods, such as celery or dried meat.

B. Medical Management:-

1. Decompression of the bowel through NG tube
2. Fluid administration to prevent dehydration and electrolyte loss
3. Antibiotics to prevent infection is any.

C. Surgical Management:

1. Surgical procedure involves repairing the hernia and adhesions
2. Some portion of the affected bowel is removed and an anastomosis is performed.
3. A temporary or permanent colostomy may be done depending on the obstruction in large bowel



D. Nursing Management:

1. Maintain normal functioning of the NG tube
2. Assessment of output and input of NG tube
3. Assess for fluids and electrolyte imbalance
4. Monitor nutritional status
5. Assess for the improvement of bowel sounds, abdominal distention, abdominal pain and tenderness
6. Assess for passage of flatus and stool.
7. Provide emotional support and comfort
8. In post- operative periods general abdominal wound care and routine postoperative nursing care are provided.
9. Assess for colostomy wound conditions and manage colostomy care.