Inflammatory Bowel Disease

Lemone and Burke Chapter 26

Inflammatory Bowel Disease

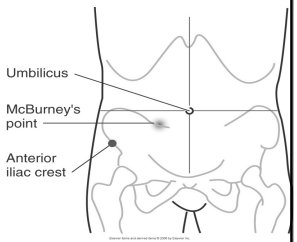
- **Objectives:**
- Discuss etiology, patho and clinical manifestations of
  - Appendicitis
  - Peritonitis
  - Ulcerative Colitis
  - Crohn's Disease
  - Diverticular Disease
- Identify diagnostic tools
- Discuss collaborative care
- Identify nursing diagnosis

Appendicitis

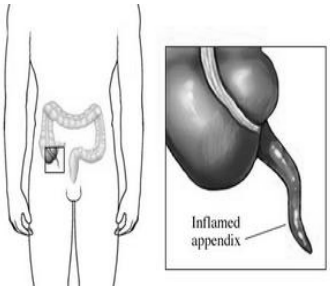
- Acute inflammation of vermiform appendix
- Most common emergency abdominal surgery
- Can occur at any age – most common in adolescents and young adults
- Males slightly more prone than females

Appendicitis - patho

- Function of appendix is not fully understood
- Obstruction likely cause
- Distention
- Pain – McBurney's Point
- Complication – tissue necrosis and gangrene



Appendicitis – Manifestation



Pain

Palpation – rebound tenderness

Nausea and vomiting

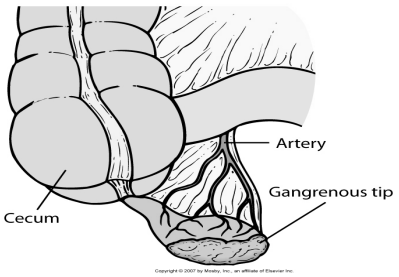
Complications

- Perforation and peritonitis

Temperature normal or slightly up

Dx – pelvic exam
abdominal US
CBC
UA

Appendicitis - Manifestation



Appendicitis – Collaborative Management

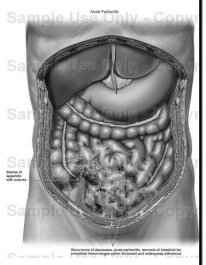
- H & P
- Nonsurgical
  - NPO
  - IV fluids
  - Antibiotics
  - Semifowler position
  - Analgesic
  - No heat
  - No enemas
- Surgical
  - Laparoscopic appendectomy
  - laparotomy

Appendicitis – Nursing Diagnosis

- Acute pain
  - Assess
  - Administer pain med
  - Assess response
- Risk for infection
  - Perforation most likely pre-operative complication
  - Post op – wound infection, abscess, peritonitis

Peritonitis - Pathophysiology

- Acute inflammation of visceral/parietal peritoneum and endothelial lining of abdominal cavity, or peritoneum
- Causes – many –
  - i.e. perforations from PUD, cholecystitis, diverticulitis
- Inflammatory and immune response – works for small invasion
- Overwhelming infection – third spacing
- Septicemia



Peritonitis

- **Manifestation**
- Pain
- Rebound tenderness
- Decreased bowel sounds
- N/V
- Rigid abdomen
- Distension
- Fever
- Tachycardia
- Tachypnea
- Restlessness, confusion
- oliguria

- **Diagnosis**
- Abdominal x-ray
- CBC
- LFT and renal function
- Electrolytes
- ABG
- Blood cultures
- Paracentesis

Peritonitis – Collaborative Management

- NPO and TPN
- IV fluids
- IV antibiotics
- NG tube
- 02
- Morphine for pain control
- Surgical consult
  - Identify and repair cause of peritonitis
  - Control contamination
  - Remove foreign object and drain fluids

Peritonitis – Nursing Diagnosis

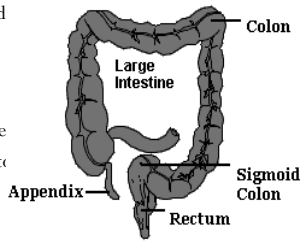
- Acute pain
- Deficient fluid volume
- Ineffective protection
- Anxiety
- Risk for infection

Chronic Inflammatory Bowel Disease (IBD)

- Ulcerative colitis and Crohns disease
- Closely related
- Etiology unknown
- US and northern Europe
- Genetic component
- Peak incidence adolescents and young adults (15-35years)

Ulcerative Colitis - Patho

- Chronic inflammatory disorder – effects mucosa of colon and rectum
- Onset insidious
- Females more often affected
- Inflammation leads to abcesse
- Chronic inflammation leads t atrophy, narrowing and shortening of colon



Ulcerative Colitis -

- **Manifestation**
- Diarrhea
- Cramping
- Temperature
- Decreased H/H
- Electrolyte imbalance
- ESR increased

- **Complications**
- Hemorrhage
- Colon perforation
- Toxic mega-colon
- Increases risk of colon cancer

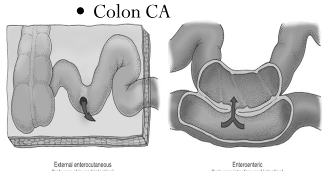
Crohn's Disease

- Idiopathic inflammatory disease that **can affect entire intestinal tract (**most common = terminal ileum or ascending colon)
- Bowel fistulas (common occurrence, may cause severe malnutrition)
- Malabsorption of vitamins and nutrients
- Flare-ups and remission – re-occurrence can happen other places of intestines

Crohn's Disease

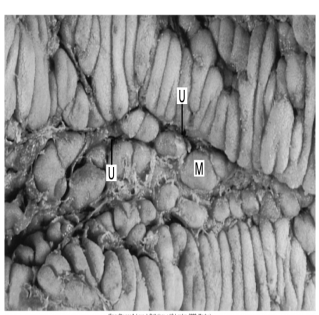
- **Manifestation**
- Diarrhea
- Abdominal pain
- Fever
- Fatigue
- Weight loss
- Weakness
- Anemia
- N/V

- **Complications**
- Strictures
- Intestinal obstruction
- Fistula
- Perforation
- Colon CA



IBD - Diagnosis

- Colonoscopy
- X-ray UBI or LGI
- Stool exam
- CBC
- Serum albumin
- LFT
- Electrolytes



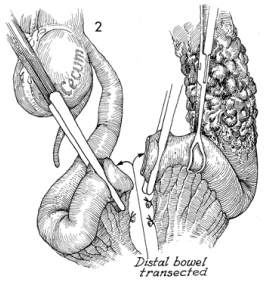
(From Stevens A, Lowe J: *Pathology*, ed 2, London, 2000, Mosby.)

IBD – Collaborative Management

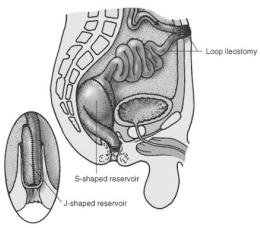
- Medication
  - Sulfasalazine
  - Mesalamine
  - Corticosteroids
  - Immuno - depressants
- Nutrition
- Surgery
  - Colectomy
  - Ostomy

IBD - Surgeries

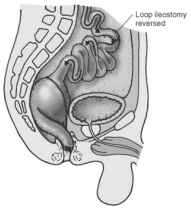
- Surgery last resort
- Bowel obstruction
- Depends on affected area



IBD – Surgery - Ileoanal Reservoir



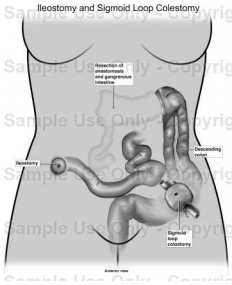
Stage 1.
After removal of the colon, a temporary loop ileostomy is created and an ileoanal reservoir is formed. The reservoir is created in an S-shaped reservoir (using three loops of ileum) or a J-shaped reservoir (suturing a portion of ileum to the rectal cuff, with an upward loop).

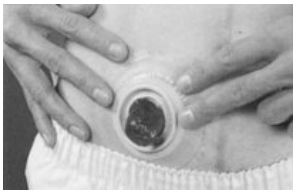


Stage 2.
After the reservoir has had time to heal–usually several months–the temporary loop ileostomy is reversed, and stool is allowed to drain into the reservoir.

Elsevier items and derived items © 2006 by Elsevier Inc.

IBD – surgery - Ileostomy





IBD – Nursing care

- H & P
- Teaching
- Pre-op care
- Post-op care
  - Assess surgical site and stoma
  - NGT
  - IVF
  - Ambulate
  - TCDB + I/S
  - Monitor bowel sounds

ICD – Nursing Diagnosis

- Fluid volume deficit r/t diarrhea
- Acute pain
- Disturbed body image
- Imbalanced nutrition < body requirement
- Knowledge deficit

Diverticular Disease

- Diverticulosis
- Diverticulitis

Pathophysiology

- Sac-like out-pouchings (diverticula) occur at weak points in intestinal wall
- Undigested food or bacteria become trapped in diverticulum - inflammation and bleeding (diverticulitis)
- Most common site is sigmoid colon
- Affects 1/3 of adults over 60 years of age

Diverticulosis

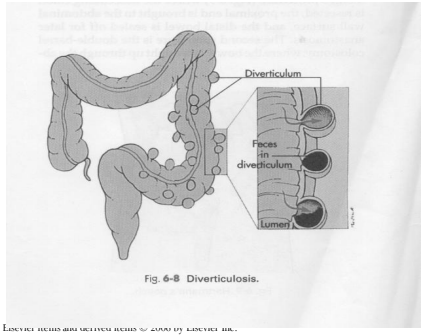


Fig. 6-8 Diverticulosis.

Etiology/Incidence/Prevalence

- Low fiber diets
- Retained undigested food in diverticula, which compromises blood supply and facilitates bacterial invasion of the sac
- Affects 1/3 of adults over 60
- More men than women affected
- Only one in five people displays symptoms

Clinical Manifestations

- **Diverticulosis**
  - Usually asymptomatic
  - Often found incidentally in a routine colonoscopy
- **Diverticulitis**
  - **Abdominal pain LLQ**
  - Intermittent to steady
  - Peritonitis = fever, chills, tachycardia, N/V
  - Guarding, rebound tenderness
  - Rectal bleeding, constipation or diarrhea

Diverticulitis - Diagnosis

- CBC
  - **WBC will be elevated**
  - Decreased H/H if bleeding present
  - Stool test
    - May be positive for occult blood
  - Barium contrast
    - Shows diverticula
- Upper GI series
  - Shows diverticula of the small intestine
- Flat plate of the abdomen
  - Shows free air and fluid in LLQ=perforation from abscess
- Sigmoidoscopy/colonoscopy-can see walls of intestine

Diverticulitis – Nonsurgical Management

- Drug therapy
  - ABX - Flagyl, Bactrim, Zosyn,
  - Anticholinergics –
  - Analgesics - Talwin
- Rest
- IVF to correct dehydration
- NPO if hospitalized – NGT
- Teaching
  - High fiber diet

(Continued)

Diverticulitis - Surgical Intervention

- Colon resection
- Patient selection based on
  - Rupture of diverticulum and peritonitis
  - Pelvic abscess
  - Bowel obstruction
  - Fistula
  - Persistent fever or pain after 4 days of treatment
  - Hemorrhage

Diverticulitis – surgical care

- **Pre-op**
- Might be performed as an emergency
- If not in acute stage, bowel prep may be given
- If in acute stage, bowel prep is withheld
- Pre-operative teaching may include information about the possible need for a colostomy

- **Post-op**
- Drain for 2-3 days
- Monitor stoma for color and integrity
- NPO status with NG tube in place for 2-3 days
- When peristalsis returns introduce clear liquids slowly and slowly advanced

Diverticulitis – Nursing Diagnosis

- Acute pain
- Impaired tissue integrity
- Imbalanced nutrition < body requirement
- Anxiety
- Disturbed body image
- Knowledge deficit

NCLEX

- A client with diverticular disease undergoes a colonoscopy. When conducting an abdominal assessment, the nurse looks for which of the following as a sign of possible complication of the procedure?
  - A. Diarrhea
  - B. N + V
  - C. Guarding and rebound tenderness
  - D. Redness and warmth of the abdominal skin

NCLEX

- A small bowel obstruction can occur due to:
  - A. Eating extra fiber in the diet
  - B. Abdominal adhesions
  - C. Drinking too much water
  - D. A NGT