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 – 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
- 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
Chronic Inflammatory Bowel Disease (IBD)

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

Ulcerative Colitis - Patho

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

Ulcerative Colitis - Manifestation

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

Ulcerative Colitis - Complications

- Hemorrhage
- Colon perforation
- Toxic mega-colon
- Increases risk of colon cancer
Crohn’s Disease

- Idiopathic inflammatory disease that can affect the entire intestinal tract
- All layers of the bowel involved, mostly terminal ileum or ascending colon
- Bowel fistulas (common occurrence, may cause severe malnutrition)
- Rare cancer of the small bowel and colon develop (occurs 15-20 years after disease has been present)
- Malabsorption of vitamins and nutrients

Crohn’s Disease

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

- Complications
  - Intestinal obstruction
  - Fistula
  - Perforation

IBD - Diagnosis

- Colonoscopy
- X-ray UBI or LGI
- Stool exam
- CBC
- Serum albumin
- LFT
- Electrolytes
**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**
IBD – surgery - Ileostomy

Kock’s Ileostomy

IBD – Nursing care
- H & P
- Avoid complications
- Teaching
- Pre-op care
- Post-op care
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 points of weakness in the intestinal wall
- Undigested food or bacteria become trapped in diverticulum causing inflammation and bleeding (diverticulitis)
- Most common site is the sigmoid colon
- Affects 1/3 of adults over 60 years of age
Diverticulosis

Etiology/Incidence/Prevalence
- Diets with small amounts of fiber
- 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, Septra, Zosyn, or Cipro
  - Anticholinergics
  - Analgesics - Talwin
  - Rest
  - Intravenous fluids to correct dehydration
  - NPO if hospitalized - NGT

(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

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