

Inflammatory Bowel Diseases and Drugs

Inflammatory Bowel Diseases

- Ulcerative Colitis
- Crohn's Disease
- Diverticulitis
- Irritable Bowel Syndrome*

Common Factors

- Chronic/episodic
- Uncertain cause
- Genetic component
- Inflammation
- Alterations in epithelial cell function

Ulcerative Colitis

- From rectum into colon
- Demographics
 - Onset 20 - 40
 - Family history
 - Jewish descent
 - More prevalent in white and northern European
- Dietary component
- Bacterial or viral origin?
- Immunologic component
 - IgG antibodies
 - T cells

Pathophysiology of UC

- Primary Lesions
 - Limited to mucosa
 - Most severe in rectum/sigmoid colon
 - Inflammation and leukocytic infiltration
- Secondary lesions
 - Erosion of primary lesion: hemorrhage
 - Crypt abscesses
 - Necrosis
 - Edema and thickening of muscularis: narrowed lumen

Clinical Manifestations of UC

- Intermittent remission and exacerbation
 - Diet
 - Stress
 - Watery diarrhea
 - Bleeding
 - Pain
 - Urge to defecate
 - Purulent mucus
- Mild
 - Minimal symptoms
 - Limited Colon involvement

Clinical Manifestations of UC

- Severe
 - Entire colon
 - Fever, tachycardia
 - 10 - 20 BMs/day
 - Dehydration
 - Weightloss
 - Complications
 - Toxic Megacolon
 - Anal fissures
 - Hemorrhoids
 - Abscesses
 - Hemorrhage - shock

Ulcerative Colitis

- Extraintestinal symptoms (5 - 15%)
 - Polyarthritis and sacroiliitis
 - Osteoporosis (also r/t steroids)
 - gall stones
- Evaluation
 - History & Physical
 - ABD radiology
 - Labs & stool cultures
 - Colonoscopy

Treatment of UC

- Treatment based on severity
- Diet: avoid triggers; increase fiber
- Stress management
- Drugs
 - Steroids
 - Salicylates
 - Immunosuppression
- Severe
 - Hospitalization
 - TPN
 - Surgical resection/colostomy

Crohn's Disease

- Affects any part of the GI tract
 - Mouth to Anus
 - Distal small intestine
 - Proximal large intestine
- Genetic factors
 - Macrophage activation
- Demographics
 - Younger onset (teens)

Pathophysiology of Crohn's

- Inflammation
 - Submucosa
 - Mucosa
 - Serosa
- Skip lesions
- Longitudinal and transverse fissures
- Granulomas
- Fistulas

Manifestations of Crohn's

- Usually starts as "irritable bowel"
- Diarrhea
- Bypass fistulas
- Abscesses
- Malabsorption
- Psychosocial issues

Crohn's Disease

- Eval & Treatment
 - Similar to UC
 - Surgery

Diverticular Disease

- **Diverticulosis**
- Asymptomatic
- Decreased fiber
- Increased intracolonic pressure
- Genetic
- **Diverticulitis**
- Diarrhea
- Constipation
- Distension
- Abscess or perforation
 - Fever
 - Pain
 - Leukocytosis
 - Septic shock
 - Death

Diverticulosis/itis

- Evaluation
 - Usually found by accident
- Treatment
 - Fiber
 - Avoid nuts***
 - Probiotics
 - Antibiotics
 - Surgery

Irritable Bowel Syndrome

- Functional "Disease"
 - Diarrhea
 - Constipation
 - Mixed
- Demographics
- Evaluation
 - Exclusion

IBS

- Treatment
 - Triggers
 - Fiber
 - Exercise
 - Medications

Nonspecific IBS Drugs

- Antispasmodics
 - Hyoscyamine
 - Dicyclomine (Bentyl)
- Bulk-forming agents
- Antidiarrheals
- TCAs

IBD Drugs

- Salicylates
 - Unsure mechanism
 - Reduces inflammation
 - Reduces symptoms
- Glucocorticoids
- Immunomodulators
 - Azathioprine & Mercaptopurine
 - Cyclosporine
 - Infliximab

Steel Cut Oatmeal

- Ingredient list
 - 1 tablespoon butter
 - 1 cup steel cut oats
 - 3 cups boiling water
 - 1/2 cup whole milk
 - 1/2 cup plus 1 tablespoon low-fat buttermilk
 - 1 tablespoon brown sugar
 - 1/4 teaspoon cinnamon

Steel Cut Oatmeal

- Directions
 - In a large saucepot, melt the butter and add the oats. Stir for 2 minutes to toast. Add the boiling water and reduce heat to a simmer. Keep at a low simmer for 25 minutes, without stirring.
 - Combine the milk and half of the buttermilk with the oatmeal. Stir gently to combine and cook for an additional 10 minutes. Spoon into a serving bowl and top with remaining buttermilk, brown sugar, and cinnamon.