

# A Trip Through the GI Tract: Common GI Diseases and Complaints

Jennifer Curtis, MD

# Colon Cancer

- How does it develop?
  - Most cancers arise from polyps
  - Over time these can turn into cancer
  - Combination of genetic and environmental factors
  - Risk increases with the size of the polyp, number and type of polyp

# Why Do I Need A Colonoscopy?

- Third most common cancer in the United States in men and in women
- Second leading cause of cancer death in the United States (first is lung cancer)
- More than 132,000 new cases diagnosed each year
- More than 50,000 Americans die from colorectal cancer each year
- Rare before the age of 40
  - Increased incidence between ages of 40-50
  - Lifetime risk is about 5%
  - 90% of cases after age 50
- Screening does reduce mortality from colon cancer
- Studies have shown that screening rates are low – around 55%
  - Lower for racial and ethnic minorities, and women

# What Increases Your Risk of Colon Cancer?

- African Americans > Caucasians
- Men > women
- Inflammatory bowel disease
  - Ulcerative Colitis
  - Crohns Disease
- Family member with colon cancer or polyps
- Personal history of polyps or colon cancer
- History of renal or other transplant
- History of radiation therapy for prostate cancer or to pelvic area – primarily adult survivors of childhood cancer having received pelvic radiation

# What Increases Your Risk of Colon Cancer?

- Diabetes
- Excessive alcohol intake – more than 3-4 drinks a day
- Cigarette smoking
- Obesity
- Long-term consumption of red meat or processed meats
- History of endometrial cancer

# Family History

- Family history of colorectal cancer occurs in 10% of adults, and 25% of cases
- 2x risk if first degree relative
  - Parent, child, sibling
- 6x risk if large number of family members affected, especially if under 50 years of age
- Family history of polyps under 60
- Certain genetic syndromes

# Symptoms

- Abdominal pain
- Change in bowel habits – diarrhea or constipation
- Stools that are narrower or thinner than normal
- Feeling that bowels do not completely empty
- Blood in stool – red or black
- Weakness
- Anemia
- Weight loss







C

# What Are My Options For CRC Screening?

- Colon Cancer Prevention
- Colon Cancer Detection

# How do I get Screened?

- Fecal occult blood test
- FIT test
- Fecal DNA test
- Flexible sigmoidoscopy
- Colonoscopy
- Barium enema
- Virtual Colonoscopy

# Fecal Occult Blood Test

- Stool cards
- Diet for 2 days – no red meat, turnips, horseradish, nsaids, vitamin C
- Annual test
- Decreases mortality by 30%
- Disadvantages:
  - Many false positives – only 2% patients with a positive test have colon cancer
  - Not a good test to detect colon polyps

# FIT

- Immunochemical test for fecal blood
- More specific
- More expensive

# Fecal DNA

- Cologuard
- Once every 3 years

# Flexible Sigmoidoscopy

- Direct visualization of the left side of the colon
- Decreases mortality by 30%
- Disadvantages:
  - No sedation
  - Only looks at the left side of the colon
  - Large polyps usually not removed
  - If polyps found – still need full colonoscopy
- Performed every 5 years
- Most experts recommend FIT/FOBT yearly, plus sigmoidoscopy every 5 years

# Colonoscopy

- Direct visualization of the entire colon
- Requires bowel preparation
  - Eat a light breakfast the day before, and then clear liquids
  - Bowel prep
- Sedation given
- Very comfortable test
- Polyps can be removed at the time of the procedure
- The preferred screening test



# Virtual Colonoscopy

- Performed by radiologist – CT scan
- Non-invasive
- Requires a bowel prep, colon is inflated with air, and allows visualization of entire colon
- No sedation given- may be more painful than colonoscopy
- Not widely available
- If polyps found – still need colonoscopy
- Studies have shown >90% of polyps found, but not as good in centers with less experience
  - More accurate for larger polyps
  - Not as good at detecting small polyps
- Not widely recommended as a screening tool
  - Shows promise
  - Consider in higher risk patients
  - Incomplete colonoscopy

# Barium Enema

- Performed by a radiologist
- Disadvantages:
  - No sedation
  - Bowel prep required
  - May miss up to 39% of all polyps
  - Abnormalities require follow-up colonoscopy

# ACG Screening Guidelines

- Average risk patient – begin screening at age 50 ( African Americans Age 45)
- Preferred:
  - **Colonoscopy** – every 10 years
  - CT Colonography – every 5 years
  - Flexible sigmoidoscopy every 5 years
  - Barium enema every 5 years
- Alternative:
  - **FIT, FOBT** every year
  - Cologuard every three years ??

# Screening Guidelines In High Risk Patients

- First degree relative (FDR) < 60 with colon cancer or polyps, or 2 or more FDR at any age
  - Colonoscopy at age 40 or 10 years earlier than age of youngest at diagnosis, whichever is first
- FDR with colon cancer or polyps > 60 or two second degree relatives with colon cancer
  - Start at age 40
- Genetic syndrome – genetic testing and screening at earlier age
- Inflammatory bowel disease – every 1-2 years after 8-10 years of disease

# How Can You Reduce Your Risk Factors?

- High fiber diet – conflicting data, but recommended
- Diet low in red meat, cholesterol
- Diet high in fruits and vegetables
- Folic acid
- Physical activity
- Aspirin and nsaids
  - Most studies have shown 40-50% reduction in colorectal cancer and polyp rates.
  - May take up to 10 years or more for significant effect
- Calcium – conflicting results but recommended
- Stop smoking!!!!!!

# Summary

- Colon cancer is the third most common cause of cancer, and the second leading cause of death from cancer in the United States.
- Screening can decrease mortality.
- Talk to your doctor about what your risks are, and which screening test is the best for you to undergo.

# Gastroesophageal Reflux Disease

- GERD
- Caused when stomach contents reflux into the esophagus

# Symptoms

- Heartburn – a burning sensation usually behind the breastbone, chest, upper abdomen
- Regurgitation – a feeling of food or liquid flowing into the throat or mouth
- Difficulty swallowing or painful swallowing
- Chest pain – can mimic a heart attack
- Nausea



# Evaluation and Treatment

- Rule out cardiac disease
- Treat with medications
  - Medications that decrease acid production by the stomach

# Treatment

- Dietary and lifestyle changes
  - Avoid foods that can cause a lot of reflux such as chocolate, mint, orange juice, fatty foods, alcohol, caffeine, carbonated beverages
  - Do not lie down after eating a meal
  - Avoid eating or drinking up to 2-3 hours before bedtime
  - Raise the head of the bed 6-8 inches
  - Avoid tight fitting clothes
  - Weight loss

# When should you have an endoscopy?

- Persistent symptoms that do not improve with treatment
- Chronic symptoms
- Any alarm symptoms
  - Difficulty or painful swallowing
  - Weight loss
  - GI bleeding – black or bloody stool
  - Anorexia
  - Nausea and vomiting

# Helicobacter Pylori

- Also known as H. pylori
- A bacteria that lives in the stomach
- Found in up to 50% of the population in developed countries
- More common in hispanics and african americans
- More common in underdeveloped countries
- Unknown how transmission occurs

# Helicobacter Pylori

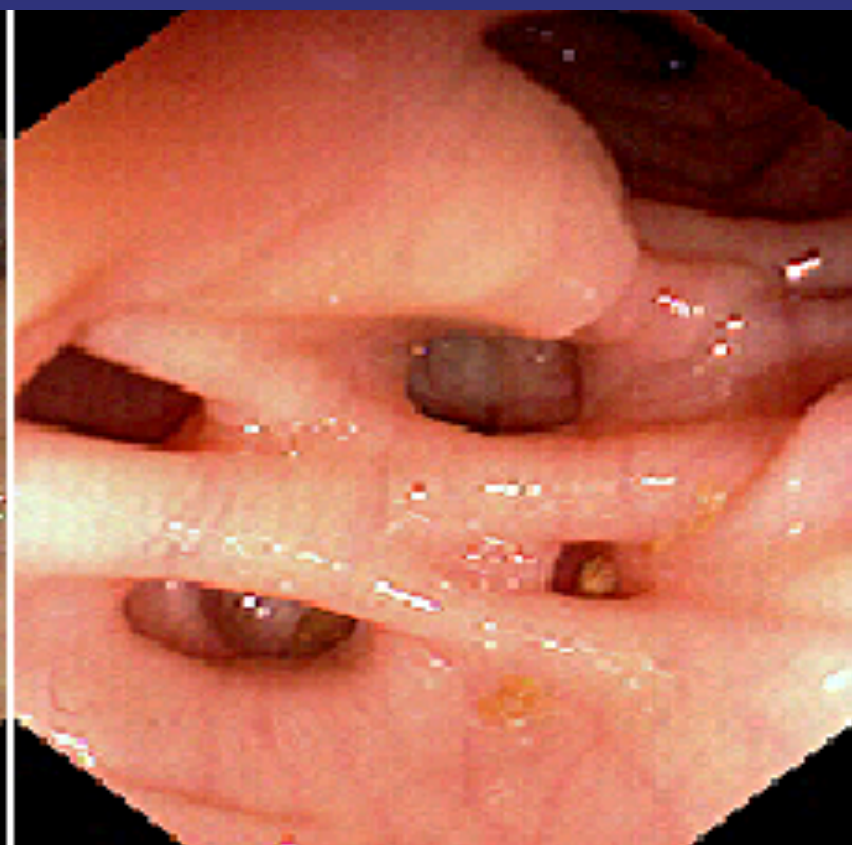
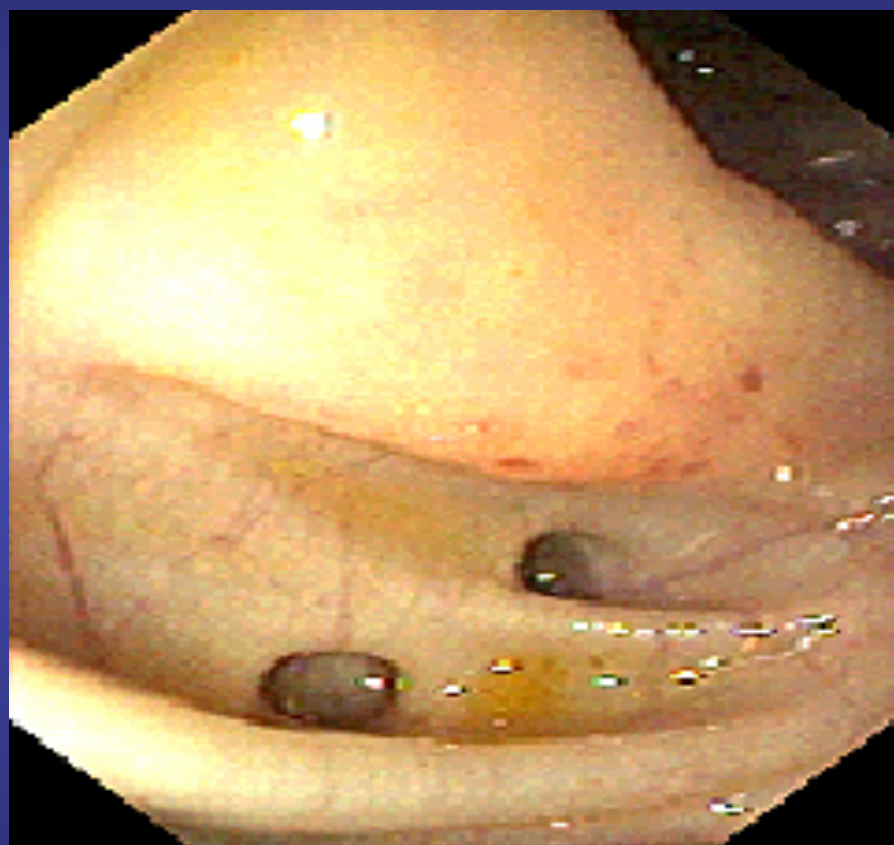
- Symptoms include abdominal pain, GERD, etc.
- Treat with a combination of antibiotics and acid suppressing medications
- Important to treat because there is a risk of developing ulcers in the stomach or small bowel, gastric cancer, and lymphoma

# Barrett's Esophagus

- Changes in the lining of the esophagus from chronic reflux
- Potentially pre-cancerous – 0.5 % a year
- Screen for changes if symptoms of chronic GERD
- Treat with acid suppressing medications
- Perform an endoscopy periodically to re-evaluate

# Diverticulosis

- Weakness in the lining of the colon that causes pockets to develop in the colon
- Usually asymptomatic
- Complications include:
  - Diverticulitis
  - Bleeding
  - Symptomatic uncomplicated disease
- Risk factors?





# Diverticulitis

- Infection of diverticula
- Symptoms include:
  - Abdominal pain – primarily lower left abdomen
  - Diarrhea or constipation
  - Fever
  - Blood in bowel movements
  - Nausea and vomiting
  - Urinary symptoms

# Diverticulitis

- Usually treat with antibiotics, low fiber diet
- Diagnosis:
  - Physical exam
  - CT scan
  - Previous history
- Complications include:
  - Perforation
  - Abscess
  - Bowel obstruction
- Once treated, a colonoscopy should be performed to rule out colon cancer or polyps

# What Can You Do To Prevent Diverticulosis Or It's Complications?

- Follow a high fiber diet
- It is OKAY to eat foods such as corn, nuts, seeds, etc.
  - They are high in fiber and nutrients

# Gas and Bloating

- Symptoms: belching, bloating, abdominal pain, flatulence, constipation
- What causes this?
- How to treat it?