

# **Diverticulosis**

## **Background**

### 1. Definitions

- Diverticula: mucosal outpouchings of colonic wall
- Diverticulosis: presence of diverticuli
- Diverticular dz: Sx associated w/diverticula
  - Colicky left iliac fossa pain
  - Bloating
  - Altered bowel habits
  - More severe may include:
    - Inflammation
    - Infection
    - Perforation
    - Fistula
    - Abscess
    - Obstruction
    - Hemorrhage

## **Pathophysiology**

### 1. Structural changes

- Diverticula develop in weakened areas of colon (i.e. site of vasa recta penetration)
- Circular muscle thickening shortens taeniae and narrows lumen
- Narrow lumen increases intraluminal pressure
- Increased pressure may predispose to diverticulum development

### 2. Incidence/prevalence

- Diverticula present in >5% of adults >40 yrs of age (Western cultures)
- 10-15% w/diverticula develop symptoms

### 3. Risk factors

- Genetic
  - Connective tissue disorder (i.e. Marfan syndrome)
- Lifestyle
  - Low fiber diet (incr fiber incr stool bulk, and decr intraluminal pressure)
- Obesity
  - Lack of vigorous exercise
- No increased risk found with smoking, caffeine, alcohol

## **Diagnostics**

### 1. History

- Presence/absence of risk factors
- Mild symptoms may include:
  - Mild colicky left lower quadrant abdominal pain
  - Bloating
  - Altered bowel habits
- Previous colon screening with incidental finding of diverticula

2. Physical exam
  - Normal abdominal exam
  - Possible mild left iliac fossa tenderness with palpation
3. Diagnostic tests
  - Incidental finding with scope, BE, CT

### **Differential Diagnosis**

1. If symptomatic
  - Diverticulitis
  - Intestinal obstruction
  - Hernia
  - Pregnancy
  - Ectopic pregnancy
  - Dysmenorrhea
  - Endometriosis
  - Mittelschmerz
  - Ovarian cyst or tumor
  - PID
  - Renal colic
  - UTI
  - Rectal hematoma
  - Bladder distention

### **Therapeutics**

1. Adequate fiber from fruit and vegetable sources may prevent advancing disease (SOR:2B)
  - Fiber
    - Recommended amount is 14 g per 1000 calories
    - Fermentable fiber - promotes stool bulk and laxation
    - Oat bran and pectin (found in fruits and veggies)
2. No evidence for or against counseling avoidance of seed fruits and veggies

### **Follow-Up**

1. Return to office
  - Incidental finding - no scheduled follow-up
2. Refer to specialist
  - Consider nutritionist consult for dietary counseling

### **Prognosis**

1. Natural course of diverticulosis
  - >95% of adults with none to mild symptoms, were without change in symptoms in 5 yrs (SOR:2B)

### **Prevention**

1. Diet high in fiber, low in fat and red meat, decreases risk of symptomatic dz
2. Nuts, corn and popcorn do not have to be avoided ((SOR:B), large cohort study)

**Evidence-Based Inquiry**

1. What is the most beneficial diet for patients with diverticulosis?

**PURLs**

1. Let them eat nuts - this snack is safe for diverticulosis patients

**References**

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