Chronic Abdominal Pain: No Guts, No Glory

Shahan Fernando, MD
Pediatric Gastroenterology
Phoenix Children's

Disclosures

- None

Objectives

- Recognize the broad differential diagnosis of chronic abdominal pain in a pediatric patient
- Select the appropriate diagnostic tests based on history and clinical exam
- Determine which patients require further consultation with a pediatric specialist

Definitions

- Chronic abdominal pain
    - Intermittent or chronic abdominal pain present for ≥2 months
    - Organic vs Functional
- Functional disorders → Disorders of the Gut-Brain Interaction (DGBI)
    - Variable symptoms not due to an organic etiology
    - Interplay between enteric and central nervous systems + GI and Psychosocial contributing factors
    - 4 subtypes
        - Functional dyspepsia
        - Irritable bowel syndrome
        - Abdominal migraine
        - Functional abdominal pain NOS

How Common Is It?

- Prevalence: 10-19% of children
    - 13% of middle school students
    - 17% of high school students
- 2-4% of all pediatric office visits
- >50% of new outpatient GI referrals in children >4 yrs old
- Economic impact: unknown
    - Adult IBS = $8 to $30 billion per year

Family-Centered Goals

- Identify and treat organic causes
- Manage DGBI's
- Education and reassurance
    - Part-time therapist
- Monitoring and follow-up
- Team approach

History

- Abdominal pain
    - Onset, triggers, timing, location/radiation, quality
    - Aggravating and relieving factors
    - Associated symptoms
    - Impact on QOL
    - Family response to pain
- Past medical history
- Family medical history

- HEEADSSS assessment

Physical Exam
- General appearance and level of discomfort
- Growth parameters
- Oral exam
- Abdominal exam
    - Ask patient to point and confirm location of pain
    - Start in RLQ → RUQ → Epigastrium → LUQ → LLQ → Hypogastrium → Umbilicus
    - Start with light palpation → deep palpation (with distraction)
    - Very light palpation of abdominal skin/wall to assess hypersensitivity
    - Palpate liver and spleen edge
    - Carnett sign

RLQ Pain
- IBD (Crohn Disease)
- Appendicitis
- Mesenteric adenitis

Epigastric Pain
- Gastritis (H. pylori)
- Peptic ulcer disease
- GERD
- Eosinophilic Esophagitis
- Pancreatitis
- Gallbladder disease
- DGBI (functional dyspepsia)

LUQ Pain
- Gastritis
- Splenic injury
- Kidney disease

LLQ Pain
- Constipation
- Hernia
- DGBI (IBS)
- IBD (colitis)
- GU disease (ovarian, ectopic pregnancy, testicular)
- Sigmoid volvulus

Hypogastric Pain
- Constipation
- Bladder disease
- IBD (colitis)

Periumbilical Pain
- Constipation
- Gastroenteritis
- Pancreatitis
- DGBI (abdominal migraine)

- Early appendicitis

Diffuse Pain
- Constipation
- Celiac Disease
- DGBI (functional abdominal pain)
- AGE
- IBD

Alarm Findings History
- Involuntary weight loss
- Dysphagia or odynophagia
- Significant vomiting
- Chronic diarrhea and/or nocturnal diarrhea
- Unexplained fever
- Urinary symptoms
- Back pain
- FHx of IBD, Celiac Disease, PUD
- Melena
- Hematochezia
- Skin changes

Alarm Findings PE
- Poor growth and/or delayed puberty
- Oral aphthous ulcerations
- Localized pain (RUQ, RLQ)
- Suprapubic or CVA tenderness
- Hepatomegaly and/or splenomegaly
- Perianal abnormalities
- Guaiac-positive stool

Initial Evaluation
- Blood
    - CBC with diff
    - CMP
    - ESR/CRP
    - Celiac serologies
    - Lipase
- Stool
    - Occult blood
    - Calprotectin (or Lactoferrin)
    - Infectious studies
- Urine
    - Urinalysis
- Imaging
    - Plain radiograph
    - Ultrasound
    - Upper GI series
    - MR enterography
    - CT (reserved for urgent evaluation)

When To Refer To GI?

- Suspicion for serious organic condition
- Persistent alarm symptoms
- No response following 4-week trial of H2RA or PPI
- Constipation refractory to initial management
- Need for endoscopic evaluation