



Kids and Their Tummy Aches

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Objectives

- Know the 3 most common causes of ongoing abdominal pain.
- Be able to identify the most common presentations of the above conditions.
- Know the appropriate treatment and length of treatment for the above conditions.

Case Study

- A 6 year old child is brought to your office with the chief complaint of a stomach ache off and on for 3 months. In the last week, it has gotten worse. Last night she was doubled up and crying.
- What do you want to know?

History

- Pain
 - Onset, timing, **location, character**, severity, disruption of sleep
 - When in pain, how does the child respond? How does the family respond?
- Aggravating/Relieving Factors – including medicine
- Associated Symptoms
 - Weight loss, decreased appetite, nausea, intestinal gas, diarrhea, cough, wheezing, hoarse voice

More History

- PMH – trauma or past surgeries
- FH – gastrointestinal diagnoses, chronic pain disorders, and any other chronic illness
- Habits
 - Dietary history – include fluid intake
 - Frequency of bowel movements, being “too busy”, encoparesis
 - Exercise

Even More History!

- Psychosocial History
 - Disruption of normal activities, including school attendance/sports
 - Any known stressors
 - Ask about school performance, peers, family dynamics
 - Close relationship with any ill family members
 - When the child is stressed, how do they show it?
- HEADSS mnemonic
 - Home
 - Education
 - Activities
 - Drugs
 - Sexuality
 - Suicide/Depression

Case Study Continued

- Her pain is umbilical and “just hurts”. The pain comes and goes. It gets really bad and then will get better. Eating makes it worse and she gets full really quickly. She even vomited one time after eating.
- She eats a high carb diet, she only drinks milk and only at meals, she doesn't like to go potty anywhere but home and only stools once or twice a week.
- She is very active and gets plenty of exercise.
- Presumptive diagnosis?



CONSTIPATION

Constipation

- Frequently encountered in children, especially in more developed countries
 - Diet is rich in highly-refined foods
 - We don't drink enough water
- Rate of recovery is higher with early intervention
- Goal of treatment is to provide child and family education, ensure adequate clean-out, and ensure maintenance with behavioral, pharmacologic, and dietary components

Constipation

- Thorough H&P is sufficient to dx in most infants and children
- Stool guaiac test recommended in all constipated infants and children who also have abdominal pain, FTT, diarrhea, or FHx of colorectal cancer or polyps

Constipation

- Stool frequency
 - In adults, 3x/day to 3x/week
 - In infants, much more frequent
 - 1-7x/day in breastfed infants
 - Slightly less frequent in formula-fed infants
 - Toddlers
 - Frequency gradually decreases from infancy, pattern matches that of adults

Constipation

- **EXAMINATION**

- Thorough general exam
- Sacral dimpling may suggest spinal cord lesion
- Abdominal exam
 - Palpation for abdominal masses
 - 50% of constipated kids you will feel hard stool in the rectum
- Rectal examination
 - Visual external exam, anal wink, digital rectal exam
- Neuro Exam
 - lower extremity reflexes, cremasteric reflexes, tip toe walking and heel walking.

Constipation

- **DIAGNOSTIC STUDIES**
 - Based on history and physical exam
 - Should be dictated by suspected etiology
 - Flat Plate of Abdomen sometimes helpful –
 - especially when having leakage around hard stool
 - Radiologists often under report stool – look at x-ray



FUNCTIONAL CONSTIPATION

Functional Constipation

- May present with abdominal distention or recurrent abdominal discomfort with infrequent, large stools
 - Occasionally presents with “diarrhea”, stool accidents, daily streaks in underwear, or inability to control “diarrhea”. --Encopresis
- Physical exam is often normal with the exception of palpable fecal masses in the rectal vault

Functional Constipation

- Encopresis
 - Lack of voluntary control over defecation
 - Develops as a result of long-standing constipation with progressive enlargement of rectal vault
 - Sensation prompting the urge to defecate is lost
 - Large fecal masses accumulate, allowing only liquid stool to pass
 - When large stool finally passes, often uncomfortable
 - Results in voluntary retention...vicious cycle
 - Substantial social and behavioral problems

Functional Constipation

- Encopresis
 - Typically early school-aged children
 - Stool-withholding behavior can start at age 2 or 3
 - Toilet training difficulties, rectal fissure
 - Often precipitated by a hard, painful stool
 - Kiddo thinks pooping hurts and draws the conclusion that they just won't poop.

Functional Constipation

- Successful treatment uses a combination of therapies
 - Dietary Changes
 - Increase fiber and fluids
 - This can not be the only treatment in recurrent/chronic constipation.
 - Bowel evacuation – the big clean out
 - Manual disimpaction, enema, laxatives, cathartics
 - Infants – glycerin suppositories
 - Stool softeners
 - Requires smaller, more frequent stooling
 - Behavioral modification
 - Established stooling routine soon after meals, praise for successful elimination of stool

Functional Constipation

- Goal of treatment is one soft stool daily without fecal incontinence.
- Have parents titrate their dose of stool softener until they get this – rather than give them a rigid dose.
- Length of Treatment
 - Treatment should not be reduced until after 6 months of stability
 - Abrupt disruption will cause a reoccurrence
 - Give family a “rescue plan” for reoccurrences - e.g. do an enema and 1 week of stool softening if 3 days with no stool.

Case Study

- A 12 year old comes to your clinic complaining about a stomach ache. He has had this stomach ache off and on for over a year. This morning the stomach ache was bad enough he had to miss school. The pain is epigastric and worse in the mornings. Sometimes he wakes up with a bad taste in his mouth.

Case Study cont.

- The pain lasts for several hours. It feels better while eating but then gets worse after eating. His mother remembers the pain starting after a bad case of the stomach flu. He is stooling daily and stool is soft. He is having some trouble at school with peers teasing him.
- Presumptive diagnosis?



Gastroesophageal Reflux Disease

GERD

- Defined by the passage of gastric contents into the esophagus causing troublesome symptoms or complications

GERD

- Clinical Manifestations:
 - Infants – fussiness, arching, feeding refusal (some feed more frequently), congestion, wheezing
 - Preschool – off/on abdominal pain, decreased food intake, discomfort after eating, cough, wheezing
 - Older Children and Adolescents – Resembles adults – burning epigastric pain, regurgitation, chest pressure, early satiety, nausea, bad taste in mouth (esp. in am)

GERD

- Pain is not well described by young children.
- Usually occurs after meals,
- Can awaken patients from sleep
- Exacerbated by emotional stress
- Can be triggered by viral illness