# Abdominal pain in children

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- Abdominal pain is one of the most common complaints
- Causes : self limited condition( constipation, GE…), life threatening conditions(appendicitis , intussusception , volvulus … )
- Acute or chronic

# Causes of acute abdominal pain in children by age

- **Neonate**: colic, protein allergy , NEC
- **1 Mo- 2 y** : Foreign body ingestion, incarcerated hernia, intussusception, GE, Protein allergy, UTI
- **2Y- 5 Y** : Appendicitis, Foreign body ingestion, intussusception, GE, Constipation, pharyngitis, UTI
- **Age >5 y** : Appendicitis, DKA, Constipation, GE, Pharyngitis, hepatitis

# Life-Threatening causes

- ***Appendicitis*** :
- Symptom, sign:  pain in the right lower quadrant, migration of pain , vomiting , guarding , abdominal tenderness, fever
- Dx: sonography, CT Scan
- Tx: surgery

- ***Intussusception*** : invagination of a part of intestine into itself
- Age : Two months to two years of age
- Symptom, sign : suddenly pain, intermittent and severe pain, bilious vomiting.
- between the painful episodes the child may behave normally
- Gross blood or currant jelly stool
- DX: UltraSonography
- TX: Nonoperative reduction, surgery

- ***PUD***
- Symptom and sign:

  - Young children : vomiting, hemorrhage and perforation
  - Older children and teenager : epigastric pain after eating
- Causes: helicobacter pylori, medication(corticosteroid, NSAIDs), major stress, idiopathic
- DX: Upper endoscopy
- TX: Eradication of Helicobacter pylori, Antisecretory therapy (PPI)

# COMMON CAUSES

- **Constipation**
- **Gastrointestinal infection**
- **Other infection**: UTI, Streptococcal pharyngitis, pneumonia
- **Mesenteric lymphadenitis** :

- That can present with acute or chronic abdominal pain,(4 week-10 week)
- Etiology: viral and bacterial GE, IBD, Lymphoma
- DX: Ultrasound
- Self-limited condition
- TX : Supportive care, pain management, adequate hydration

- **Foreign body ingestion** : objects that are sharp, >5 cm in length , multiple magnets, button batteries
- **Colic** :

- A typical pattern of paroxysmal crying lasting at least three week

- Crying >3 hr per day, >3 days per week, in healthy infant <3 m/o age

- Crying usually in the evening

- Crying relieved with the passage of flatus or stool

- Normal feeding

- No associated symptoms

- Normal physical examination

# Other causes

- ***Hepatitis***: jaundice , abdominal pain, fever , vomiting, anorexia, yellowish urine
- Hepatitis A

- In children is usually a minor and self-limited infection

- Treatment is supportive

- Hospitalization for those who develop fulminant hepatic failure

# Chronic abdominal pain

- Common in children and adolescent
- Intermittent or constant abdominal pain for at least two months
- Organic disorder or functional disorders
- Organic causes : PUD, Carbohydrate malabsorption(lactose), celiac disease, constipation , GERD, parasitic infection (giardia, cryptosporidium…), IBD, UTI

# Functional abdominal pain

- ***Abdominal migraine, IBS , Functional abdominal pain syndrome ,Functional dyspepsia***
- **Alarm finding** helpful in distinguishing organic from functional :

- Weight loss or unexplained fever
- Difficulty or painful swallowing
- Vomiting : bilious, protracted, projectile
- Diarrhea that is severe and chronic , nocturnal, bloody
- Urinary symptom
- Back pain
- Family history of IBD, Celiac disease, PUD
- Skin changes

- **Alarm finding from examination**

- Deceleration in linear growth
- Oral ulcer or perianal abnormalities
- Localized abdominal pain, suprapubic tenderness
- Delayed puberty
- Hpatosplenomegaly

- **Diagnosis** of functional abdominal pain :

- No alarm finding
- Normal physical examination
- Stool sample negative for occult blood

# Management of functional abdominal pain

- **Medical intervention** combined with general **behavioral** management
- **Medication** : probiotics, Fiber, peppermint oil, antispasmodics
- *Probiotics* : Lactobacillus rhamnosus, Lactobacillus reuteri
- *Fiber* : water-soluble fiber (psyllium)
- *Peppermint oil*
- *Antispasmodics* : dicyclomine and hyoscyamine
- *Other interventions* : tricyclic antidepressant ( low- dose amitriptyline) , cyproheptadine

# *Thanks for Attention*