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Abdominal pain & IBS

★ Objectives:

1. Differentiate between acute and abdominal pain
2. Differentiate being from life threatening cause
3. Know the types of abdominal pain
4. Know how to approach and manage patients who presents with abdominal pain
5. Know the alarm features of patients who has irritable bowel syndrome

★ Resources Used in This lecture:

Step Up, Master the boards, Slides, Doctor notes

Done by: Sara Alhusaini & Alaa Alnahdeh
Revised by: Hussain Alkaff
Contact us at: InternalMedicineTeam434@gmail.com

Abdominal pain

Classification

Based on duration

- Acute abdominal pain (Less than 12 week) : the pain worsened progressively.
- Chronic abdominal pain (More than 12 week) : the pain remained unchanged for months.

Surgical abdomen :

- Condition that rapidly worsening prognosis in the absence of surgical intervention.
- Pain is typically severe in these conditions, and can be associated with unstable vital signs, fever, and dehydration.
- Urgent surgical require result from obstruction and peritonitis.

Based on the origin:

1-Visceral pain	2-Parietal
Involves hollow or solid organs; midline pain due to bilateral innervation	Involves parietal peritoneum
Vague discomfort to excruciating pain	Causes tenderness and guarding which progress to rigidity and rebound as peritonitis develops.
Poorly localized	Localized pain
3-Referred pain	
Produces symptoms (not signs) Based on developmental embryology such as : • Ureteral obstruction → Testicular pain • Subdiaphragmatic irritation → Ipsilateral shoulder pain • Gynecologic pathology → Back or proximal lower extremity • Biliary disease → Right infrascapular pain • MI → Epigastric, neck, jaw	

Based on the Location:

Epigastric	
Panctisis Peptic Ulcer (Gastric and duodenal) Aoric disection	
Right upper quadrant	**Left upper quadrant**
Cholecystitis Biliary Colic Cholangitis Hepatitis	Splenic rupture IBS PE Pneumonia
Right Lower quadrant	**Left Lower quadrant**
Appendicitis Cecal diverticulitis Ovarian torsion Ectopic pregnancy IBD	Sigmoid diverticulitis Sigmoid volvulus Ovarian torsion Ectopic pregnancy IBD

Diagnosis :

❑ History

- Type of pain
- Location and radiation
- Character and Severity
- Onset (sudden…) and duration
- Exacerbating or relieving factor
- Associated symptoms (fever,vomiting
- Medications (aspirin or NSAIDs)

❑ Physical Exam:

- General and Vital Signs (Abnormality of vital signs suggest acute abdomen.)
- Guarding :

➢ Voluntary: Diminished by having patient flex their knees
➢ Involuntary: Reflex spasm of abdominal muscles

- Rigidity
- Rebound (can be normal in 25%): Suggests peritoneal irritation

❑ Labs:

- CBC
- LFT
- Renal function
- Urine analysis (To exclude renal stones, pyelonephritis)
- X-ray (to check for obstruction (air fluid level) or perforation)

- US abdomen
- CT scan (To seek evidence of pancreatitis, retroperitoneal collection or masses, including an aortic aneurysm

Important questions:

- ★ Which came first – pain or vomiting?
- ★ How long have you had the pain? Acute or chronic
- ★ Constant or intermittent? History of intermittent abdominal pain is more towards a functional disorder such as IBS rather than an organic lesion.
- ★ History of cancer, diverticulosis, gallstones,Inflammatory Bowel Disease?
- ★ Vascular history, HTN, heart disease or AF?

Features that suggest organic illness include:

- ★ Unstable vital signs,
- ★ weight loss,
- ★ fever,
- ★ dehydration,
- ★ electrolyte abnormalities,
- ★ symptoms or signs of gastrointestinal blood loss,
- ★ anemia, or
- ★ signs of malnutrition.

Peptic ulcer disease:

Causes

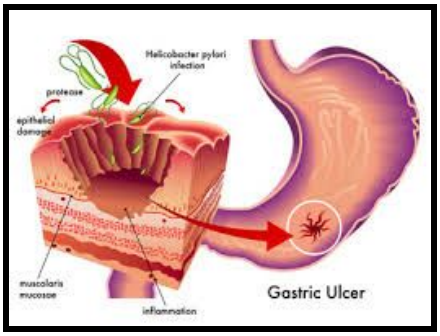
- H. pylori (Most common)
- NSAIDs (2nd most common)
- Zollinger ellison syndrome (3rd most common)

Other: such as smoking , alcohol and coffee delay role in eccerbayoon of symptoms

Clinical Features

- Sharp, dull ,Aching , gnawing or Burning epigastric pain or "hungry" feeling
- Relieved by milk, food, or antacids
- Awakens the patient at night
- Upper GI bleeding
- Epigastric tenderness

➢ Duodenal ulcer : the pain relieved by food +weight loss
➢ Gastric ulcer : the pain exacerbated by food + weight loss



Diagnosis

Endoscopy (**most accurate test**)

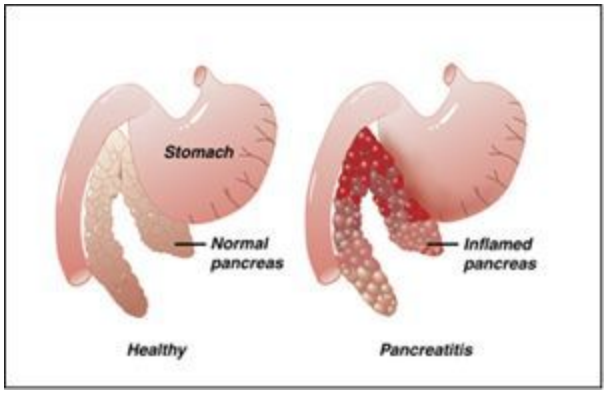
Warning sign of peptic ulcers → Compilation

- sudden and severe, diffuse abdominal pain → perforation.
- Vomiting → pyloric outlet obstruction.
- nausea, hematemesis, melena, or dizziness. → Hemorrhage

Acute pancreatitis

Causes

- Gallstones
- Alcohol abuse
- Post ERCP
- Drugs : diuretics, NSAIDs



Clinical Feature

- **Severe Epigastric pain Radiates to back**
- **Pain dull or steady in nature**
- **Epigastric tenderness**
- **Positive Great tunes , cullen and fox sign**

Diagnosis

- Serum Amylase and lipase (Best initial test)
- CT-scan (,most accurate test)

Treatment

- NPO
- IV hydration
- Painkiller

IRRITABLE BOWEL SYNDROME (IBS)

Definition :

Idiopathic Syndrome of Intrinsic Bowel; motility dysfunction and can have both diarrhea ,constipation or both.

Clinical Feature

- **Recurrent Cramping abdominal pain characterized by :**
  - ❏ Relieved by defecation
  - ❏ Less at night

- **Change frequency and consistency of stool Such as diarrhea , constipation or alternating diarrhea ,and constipation**
- **Abnormal stool passage (straining, urgency or feeling of incomplete evacuation)**
- **Abdominal distention**

- Common associated findings include depression, anxiety, and somatization.
- The Psychiatric symptoms often precede bowel symptoms. (exacerbation)
- All laboratory test results are normal, and no mucosal lesions are found on sigmoidoscopy. IBS is a benign condition and has a favorable long-term prognosis. □

Epidemiology

- More common Female than male
- More common Young than old people

Diagnosis

By Rome III criteria : Recurrent abdominal pain or discomfort > or = 3 days per month in last 3 months:

1. Pain or discomfort imorove with defecation
2. Symptoms onset is associated with change in frequency f sool
3. Symptoms onset is associated with change in form of sool

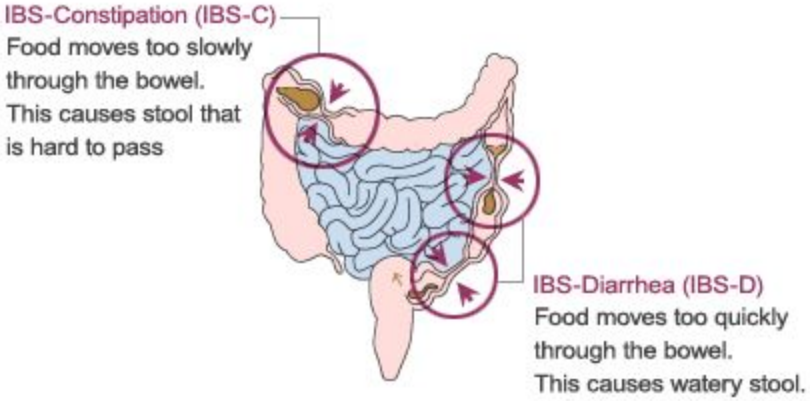
- **Ask about Alarm symptoms that suggest other serious diseases .** (to exclude them)
  - ❑ **PR bleeding , Weight loss**
  - ❑ **Family history of cancer , Onset >45 years of age**
  - ❑ **Fever , Anemia**
  - ❑ **Progressive deterioration, Steatorrhea and dehydration**
- **Order CBC, renal panel, fecal occult blood test, stool examination for ova and parasites, erythrocyte sedimentation rate, and possibly a flexible sigmoidoscopy.**

Management

- Fiber and diet
- Anti spasmodic agent (hyoscyamine Or dicyclomine)
- Tricyclic and antidepressant
- Anti Motility :

❑ diarrhea → **Loperamide** ,
❑ Constitution → **cisapride**

★ **Note :There is no cure, but effective management may lessen the symptoms.**



Case #1:

24 yo healthy M with one day hx of abdominal pain.

Pain was generalized at first, now worse in right lower abd & radiates to his right groin.

He has vomited twice today.

Denies any diarrhea, fever, dysuria or other complaints.
(What else do you want to know? Acute vs chronic? Visceral or parietal? Important signs?)

- **T: 37.8, HR: 95, BP 118/76,**
- **Uncomfortable appearing, slightly pale**
- **Abdomen: soft, non-distended, tender to palpation in RLQ with mild guarding; hypoactive bowel sounds**

What is your differential diagnosis and what do you do next?
DDx: acute appendicitis

Case #2:

46 yo M with hx of alcohol abuse with 3 days of severe upper abd pain, vomiting, subjective fever.

Vital signs: T: 37.4, HR: 115, BP: 98/65, Abdomen: mildly distended, moderately epigastric tenderness, +voluntary guarding

What is your differential diagnosis & what next?

DDx: Pancreatitis , Management: most important step in general is to hydrate, i would also give analgesics. Usually no need for surgery.

Case #3:

72 yo M with hx of CAD on aspirin and Plavix with several days of dull upper abd pain and now with worsening pain "in entire abdomen" today. Some relief with food until today, now worse after eating lunch.

T: 99.1, HR: 70, BP: 90/45, R: 22

Abd: mildly distended and diffusely tender to palpation, +rebound and guarding

What is your differential diagnosis & what next?
DDx: peptic ulcer complicated by perforation. Next step: IV fluid resuscitation.

Case #4:

23 year old female medical student

Presented with 2 years h/o intermittent left lower quadrant abdominal pain which is usaully relieved by defecation and associated with constipation and abdominal bloating

What else you need? CBC, US, Colonoscopy

Is it Acute or chronic? Chronic

Is it Visceral or parietal? Pari