Medical causes of acute abdomen

a-Endocrine &metabolic disorders Uraemia,diabetic crisis ,addisonian crisis ,acute intermittent porphyria, acute hyperlipoproteinemia, hereditary medetranian fever

b-Infections and inflammatory disorders Tabes dorsalis,herpes zoster,acute rheumatic fever, Henoch-Shonlein purpura ,SLE,polyarteritis nodosa

c-Hematological disorders Sickle cell crisis, acute leukemia, other dyscrasias

d-Toxins and drugs: Lead and other heavy metal poisoning, narcotic withdrawal ,black widow (spider poisoning)

e-Referred pain from **thoracic region:** myocardial infarction, acute pericarditis, pneumonia ,pleurisy, pulmonary embolus ,pneumothorax ,empyema

Physical signs in various causes of

Perforated viscus : Scaphoid tense abdomen, diminished bowel sounds(late), loss of liver dullness ,guarding or rigidity

Peritonitis : Motionless, absent bowel sounds(late) cough and rebound tenderness ,guarding or rigidity

Inflamed mass or abscess: Tender mass(abdominal,rectal or pelvic),special signs (murphy 's,psoas or obturator)

Intestinal obstruction: Distension ,visible peristalsis(late) , hyperperistalsis(early) or quiet abdomen (late),diffuse pain without tenderness; hernia or rectal mass(some**)**

Paralytic ileus: Distension,minimal bowel sounds,no localized tenderness

Ischemia or strangulated bowel : Not distended(until late), bowel sounds variable,sever pain but little tenderness,rectal bleeding (some)

Bleeding: Pallor ,shock, Distension, pulsatile(aneurysm) or tender mass(e.g ectopic pregnancy); rectal bleeding

Other Symptoms of acute abdomen

Anorexia ,nausea ,vomiting ,constipation or diarrhoe

A –Vomiting" pain in the acute surgical abdomen usually precedes vomiting, whereas the reverse holds true in medical conditions .Vomiting is a prominent symptom in upper gastrointestinal diseases (acute gastritis,pancreatitis)

B-Diarrhea: Copious watery diarrhea is characteristic o f gastroenteritis and other medical causes of acute abdomen .blood stained diarrhea suggest ulcerative colitis ,Crohn disease, bacillary or amebic dysentery .

- B- **constipation**

Reflux ileus is often induced by visceral afferent fibers stimulating efferent fibers of the sympathetic nervous system to reduce intestinal peristalsis.

Opstipation (the absence of both stool and flatus) strongly suggest mechanical bowel obstruction if there is progressive painful abdominal distention or repeated vomiting

Laboratory Investigations

a-blood studies Pcv,wbc,clotting specific tests differential count,urea ,creatinine (crossmatching * arterial gases*)

b- urine test Microscopy, dipstick testing ,culture

c- stool exam: Occult blood, warm smear,c ulture

d-imaging studies: chest –abd x ray ,US,or CT scan (,angiography, water soluble upper gastrointestinal series,HIDA scan)

e-endoscopy,paracentesis ,laparoscopy

Differential diagnosis

The age and gender of the patient help in the differential diagnosis: Mesenteric adenitis mimics acute appendicitis in the young, gynecologic disorders complicate the evaluation of lower abdominal pain in women of childbearing age, and malignant and vascular diseases are more common in the elderly.

(1) Any patient with acute abdominal pain persisting for over 6 hours should be regarded as having a surgical problem requiring in-hospital evaluation. Well-localized pain and tenderness usually indicate a surgical condition. Systemic hypoperfusion in conjunction with generalized abdominal pain is seldom due to a nonsurgical problem.

(2) Acute cholecystitis, appendicitis, bowel obstruction, cancer, and acute vascular conditions are the most common causes of the surgical acute abdomen in older patients.

(3) Salpingitis, dysmenorrhea, ovarian lesions, and urinary tract infections complicate the evaluation of the acute abdomen in young women.

(4) Unusual types or atypical manifestations of intestinal obstruction, especially early cases, are easily missed. Emesis, abdominal distention, and air-fluid levels on x-ray may be negligible in Richter hernia, proximal or closed-loop small bowel obstructions, and early cecal volvulus.

5) Elderly or cardiac patients with severe unrelenting diffuse abdominal pain but without commensurate peritoneal signs or abnormalities on plain abdominal films may have intestinal ischemia. Arterial blood pH should be measured and visceral angiography performed expediently.

(6) Medical causes of the acute abdomen should be considered and excluded if possible before exploratory laparotomy is planned .

Table 21–7. Indications for Urgent Operation in Patients with an Acute Abdomen.

Physical findings

- Involuntary guarding or rigidity, especially if spreading
- Increasing or severe localized tenderness
- Tense or progressive distention
- Tender abdominal or rectal mass with high fever or hypotension
- Rectal bleeding with shock or acidosis
- Equivocal abdominal findings along with septicemia (high fever, marked or rising leukocytosis, mental changes, or increasing glucose intolerance in a diabetic patient)
- Bleeding (unexplained shock or acidosis, falling hematocrit)
- Suspected ischemia (acidosis, fever, tachycardia)
- Deterioration on conservative treatment

Radiologic findings

- Pneumoperitoneum
- Gross or progressive bowel distention
- Free extravasation of contrast material
- Space-occupying lesion on scan, with fever
- Mesenteric occlusion on angiography

Endoscopic findings

PERIOPERATIVE MANAGEMENT

- After initial assessment ,parenteral analgesic for pain relief should not be withheld. pain that persist in spite of adequate doses of narcotics suggest a serious condition often requiring operative correction.
- Resuscitation of acutely ill patients should proceed based on their intravascular fluid deficits and systemic diseases.
- Medications should be restricted to only essentials;cardiac drugs, corticosteroids,& to control diabetes.
- Antibiotics are indicated for some infectious conditions or as prophylaxis during the perioperative period.

questions

1- differentiate between parietal and visceral pain.

2- enumerate 5 common medical causes of acute abdomen

3- how the age can be of help in diagnosing acute abdomen?

4- intestinal obstruction can be missed explain why?