Acute abdomen
Acute abdomen

- Traumatic acute abdomen
- Non-traumatic acute abdomen
Non traumatic acute abdomen

- Inflammation diseases
- Ileus - bowel non – patency
- Bleeding from gastrointestinal tract
Traumatic acute abdomen

- Traumatic GIT perforation
- Intraabdominal bleeding
- Both
Important for diagnosis:

- History
- Examination
Symptoms – acute abdomen

- Pain
- Nauzea and vomitus
- Damage bowel passage
- Tension abominal wall
- Haematemesis and melaena
Extraperitoneal diseases suggested acute abdomen I.

- Pneumonia – lower part of lung
- Pleuritis
- Pneumothorax
Extraperitoneal diseases suggested acute abdomen II.

- Cardiac infarction
- Myocardial insufficiency
- Aortic aneurysm dissecting
Extraperitoneal diseases suggested acute abdomen III.

- Pyelitis
- Abscess perinephritic
- Urolithiasis
- Hydronephrosis
Extraperitoneal diseases suggested acute abdomen IV.

- Retroperitoneal haematoma
- Lumboischial syndroma
Pseudoperitonitis

- Metabolic diseases
- Diabetes mellitus
- Uraemia
- Contamination with heavy metal (Pb, Hg)
History and examination

- Pain – start, duration, character, spasm,

- Examination – 5P – look, palpation, knock, auscultation, per rectum
Additional examination

- Laboratory examination: blood examination, haemogram, coagulation, biochemic screening
- X rays: abdomen, thorax, USG, CT, MRI
Radiogram

- Pneumoperitoneum
- Air-levels – ileus
  - Small intestinal
  - Large intestinal
Most common diagnosis epigastrium

- Epigastric place – acute abdomen
  - Biliary/gallstone colic 30-40%
  - Acute cholecystitis 20-30%
  - Peptic ulcer – perforation 10-20%
  - Acute pancreatitis 10-15%
  - Peptic ulcer – penetration 5-10%
  - Cholangitis 2-5%
  - Perforation of gallbladder 1-3%
Right mesogastrium + hypogastrium

- Acute appendicitis
- Lymphadenitis mesentrial
- Acute adnexitis
- Crohn disease
- Meckeli diverticulum
- Ileocoecal invagination
- Extrauterine gravidity
- Ureterolithiasis
- Inguinal hernia – incarceration
- Tumor right side of colon, coecum
Left mesogastrium + hypogastrium

- Diverticulitis colon sigmoideum, left side colon
- Tumor colon sigmoideum, volvulus colon sigmoideum,
- Ureterolithiasis, nephrolithiasis
- Adenexitis
- Extrauterine gravidity
- Inguinal or scrotal hernia incanceration
Mesogastrium

- Acute obstruction of mesenteric vessel
  - Trombosis, embolus
- Enteritis necrotic
- Abdominal aortic aneurysm – rupture
- Urinary retention
Peritonitis

- Inflammatory process of peritoneum – infected agents, chemical and toxic bile, pancreatic juice, urine, chylus
- Dangerous situation – attempt life
Peritonitis

Creation

- primary (haematogenes way)
- secondary

(bacterial) – perforation, per continuinuitatem
(abacterial) – biliary, urinary, pancreatic
Peritonitis

Amount

- diffuse
- local - circumscribed
Peritonitis

Character

- serous, sero-fibrinous
- purulent
- putrid
- stercoral
- abacterial (bile, urine, pancreatic)
Diffuse peritonitis

Laparotomy: find a cause + resolve problem

- Perforation ulcer – sutura + omentoplastica
- Perforation appendicitis – appendectomy
- Acute pancreatitis – necrectomy + drainage bursae omentalis
- Perforation of colonic tumor –
  - Right side – resection
  - Left side – colostomy
Local peritonitis

Peritonitis
local : circumscripita, intraabdominal abscess

evacuation abscess + drainage, resolve problem
Heus

- Mechanic
- Paralytic
A

Narrow colon

Normal colon

Cecum

Appendix

Meconium ileus (obstruction)

Distention in small intestine caused by obstruction

B

Ribs

Spine

Meconium ileus in small intestine
Mechanic ileus

- High small bowel ileus

Obstruction

- duodenum
- superior part of jejunum
Mechanic ileus

- Low small bowel ileus

Obstruction

ileum

coecum
Mechanic ileus

- Large bowel ileus

Obstruction large bowel
Mechanic ileus

- Urgent operation
- Avoid perforation of bowel!
ILEUS

Obstructive:
a/ intraluminal
b/ intramural
c/ extramural

without
obstruction of
blood vessels
Mechanic ileus

- **Strangulation**
  - Block peristaltic function
  - Block blood flow out
  - Block blood flow in

Adhesions, hernia, calculus, invagination, internal hernia (diaphragm)
ILEUS

Strangulations:

a/ adhesive
b/ incarcerated
c/ invagination
d/ volvulus

with obstruction of blood vessels
Mechanic ileus

- Invagination
  - Insertion side of intestinum into another intestinum

- Distal part external - intususciptiens
- Proximal part internal - intusceptum
ischemic gangrena
Paralytic ileus

Damage bowel movement because of

- breakdown coordination sympathetic and parasympathetic nerve
- Long time mechanic ileus – depleted bowel
- Intracellular problem – hypokaliemia
Ileus

- mechanic – surgery
- paralytic – no surgery, (Ogilvie sy)
Ogilvie syndrome

- **Ogilvie syndrome** is the acute pseudo-obstruction and dilation of the colon in the absence of any mechanical obstruction in severely ill patients.

- Colonic pseudo-obstruction is characterized by massive dilatation of the cecum (diameter > 10 cm) and right colon on abdominal X-ray.

- The condition carries the name of the British surgeon Sir William Heneage Ogilvie (1887–1971), who first reported it in 1948.
Vessel ileus

Acute mesenteric ischemia

- arterial embolism 25-45%
- arterial trombosis 15-25%
- nonocclusive mesenteric ischemia 10-30%
- venous trombosis 5-15%

gangrena of intestinum
Vessel ileus

Chronic

• Dyspeptic problem
Gastrointestinal bleeding

Visible evidence of bleeding

- haematemesis
- coffee – ground emesis
- melena
- haematochezia
Gastrointestinal bleeding

- bleeding upper gastrointestinal tract
- lower gastrointestinal haemorrhage
Upper gastrointestinal haemorrhage

- oesophagus
- stomach
- duodenum
Upper GI haemorrhage

hematemesis / melena

hypotension

! resuscitate, transfusion for HCT< 28

orogastric lavage, upper endoscopy

arterography/embolisation

surgery: gastrotomy, duodenotomy, on table endoscopy
Esophageal varices

Esophageal varices are extremely dilated submucosal veins in the esophagus. They are most often a consequence of portal hypertension, such as may be seen with cirrhosis. Patients with esophageal varices have a strong tendency to develop bleeding.
In cases of refractory bleeding, balloon tamponade may be necessary, usually as a bridge to further endoscopy or treatment of the underlying cause of bleeding (usually portal hypertension).
Sengstaken-Blakemore tube
Methods of treating the portal hypertension include:
- transjugular intrahepatic portosystemic shunt (TIPS)
- distal splenorenal shunt procedure
- liver transplantation
Ulcer disease - bleeding

Forrest classification

IA – bleeding artery
IB – effusion of blood
IIA – coagulum
IIB - trombosis of vesell
IIC – bottom with haematin
III - with out signs of bleeding
Peptic ulcers
diaphragm

air under diaphragm
## Lower gastrointestinal haemorrhage

### Children and adolescents
- Meckel’s diverticulum
- Instussusception
- Inflammatory bowel disease
- Juvenile polyps

### Adults
- Angiodysplasia
- Diverticulosis
- Cancer/polyps
- Haemorrhoids/fissures
- Ischemic colitis
- Inflammatory bowel disease
- Radiation proctitis
- Infection colitis
- Teleangiectasis
Investigations useful in the identification of source of lower gastrointestinal haemorrhage

- History
- Physical examination
- Per rectal examination, proctoscopy, sigmoidoscopy
- Colonoscopy – preoperative or intraoperative
- Double-contrast high-quality barium enema
- Upper gastrointestinal endoscopy
- Technetium-labeled erythrocyte scan
- Angiography
Lower GI bleeding

- **Severe**
  - acute, hemodynamically unstable
- **Occult**
  - chronic
- **Moderate**
  - acute or acute on chronic, hemodynamically stable
Lower GI bleeding

Severe (acute, hemodynamically unstable) resuscitate

- good response
- unstable continues to bleed
- no response continues to drop blood pressure
Good response

Patient stable

• stop bleeding
• colonoscopy and follow
• resumes bleeding

no localisation (subtotal colectomy)
localisation (segmental resection)
Unstable continues to bleed

angiography and vasopressin

• stop bleeding

observe

• continues bleeding

no localisation (subtotal colectomy)

localisation (segmental resection)
No response continues to drop blood pressure

subtotal colectomy!
Lower GI bleeding

Occult (chronic) - colonoscopy
Lower GI bleeding

Moderate (acute or acute on chronic, hemodynamically stable)-colonoscopy
Thank you for your attention!