

# Introduction to clinical gastroenterology

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# History

## GIT symptoms

- ▶ dyspepsia
- ▶ dysphagia
- ▶ nausea
- ▶ vomiting
- ▶ pyrosis
- ▶ diarrhoea
- ▶ constipation
- ▶ flatulence, meteorism
- ▶ weight loss (how much? time range? on purpose? another consequences - infection, tonsillitis, dental problems..)
- ▶ GI bleeding (hematemesis, melena, enterorrhagia/hematochezia)
- ▶ jaundice

## Pain

- ▶ localization
- ▶ radiation
- ▶ duration, beginning of problems
- ▶ sudden/ gradual/ continuous/ intermittent/ crampy
- ▶ precipitating or alleviating factors
- ▶ dietary mistake (alcohol, fatty, spicy, sour, peppery.. food)
  
- ▶ visceral/somatic
- ▶ deep/superficial

# Clinical examination

- ▶ right position - patient lies on back with relaxed abdominal wall musculature (head and knees supported on small pillow, arms at the sides)
- ▶ inspection, palpation, percussion, auscultation, DRE/per rectum!
- ▶ 1.question - Does it hurt anywhere? - and we start the examination on the other side; at first superficial, than deep palpation
- ▶ ascites, hernia - better to examine standing
- ▶ scars, herniation, hematoma, discoloration, striae...
  
- ▶ acute abdomen signs - déféense musculaire, Blumberg, Rowsing, Plenies signs
- ▶ McBurney´ s point, Murphy sign, Courvoisier sign



# Laboratory tests

- ▶ *biochemistry*: Na, K, Cl, Ca, Mg, P, urea, creatinine, bilirubin, liver enzymes - ALT, AST, GGT, ALP, amylase, lipase, albumin, total protein, glucose, CRP
- ▶ *hematology*: full blood count, coagulation/blood clotting tests
- ▶ *microbiology*: stool (Clostr. difficile, Salmonella, Campylobacter, Yersinia.., rotavirus, norovirus, adenovirus, parasites), ascites, aspiration from abscess, H.pylori sensitivity for ATB
- ▶ *serology* : hepatitis A,B,C,E, EBV, CMS, immunoglobulins, autoantibodies for diagnostic IBD (ANCA, ASCA), celiac disease (DGP, tTG, EMA), autoimmune hepatitis (ANA, ANCA, ASMA, LKM..), H.pylori antigen in stool, faecal calprotectin
- ▶ *immunohistochemistry* : faecal occult bleeding test (FiOK/TOKS)

## Special methods

- ▶ *urea breath test* - diagnostic of H.pylori infection

## Histology

- ▶ *liver biopsy, endoscopic biopsies, cytology from ascites..*

# Imaging methods

- ▶ *X-ray of abdomen* - ileus? pneumoperitoneum?
- ▶ *ultrasonography of abdomen* - free fluid? inflammatory focus - cyst/abscess? pathological lymph nodes? cholecystolithiasis? cholecystitis? appendicitis? v.portae thrombosis? malignancy? metastasis?
  - image of pancreas in sonography is often limited (because of its position)
- ▶ *ultrasonography of intestine*
- ▶ *CT of abdomen/pelvis* (CT of pancreas for staging acute pancreatitis)
- ▶ *MR of abdomen/ pelvis*
- ▶ *CT/MR enterography* modification
- ▶ *virtual CT colonography*
- ▶ *skiascopy* - passage of contrast fluid through upper GIT, defecography
- ▶ *enteroclysis, irigography*

# Endoscopic procedures

- ▶ gastroscopy - from mouth to D3
- ▶ colonoscopy - from rectum to terminal ileum
- ▶ enteroscopy - push enteroscopy, double-balloon enteroscopy
  - examination of whole small intestine
- ▶ capsule endoscopy - video record of passage through whole digestive tract
- ▶ ERCP (endoscopic retrograde cholangiopancreatography) - examination of biliary/pancreatic duct systems with contrast fluid and skiascopy
- ▶ EUS (endoscopic ultrasonography) - esophagus, stomach, pancreas, biliary ducts, transrectal EUS
  - evaluate depth of submucous invasion, pathological lymphadenopathy if there is malignancy suspicion
  - evaluate dilatation of biliary and pancreatic duct system, lithiasis, focal inflammation - cyst/pseudocyst, malignancy
- ▶ esophageal pH-metry, 24h esophageal impedance - diagnostic of GE reflux disease
- ▶ esophageal / anorectal manometry - evaluation of motor function of esophageal/anal sphincters

# Endoscopic methods - interventions

- ▶ polypectomy
- ▶ ligation of esophageal/ gastric subcardial varices
- ▶ sclerotherapy of varices (Aethoxysclerol - tissue glue)
- ▶ balloon dilatation of strictures
- ▶ GI bleeding treatment - injection - Adrenalin
  - mechanic - clips
  - hemospray (inorganic powder)
  - thermic - APC (argon plasma coagulation)
- ▶ PEG insertion (percutaneous endoscopic gastrostomy) - nutrition for patients with ORL malignancy, malign/benign esophageal strictures, after strokes, severe stadium of dementia
- ▶ EUS - navigated transgastric drainage of pancreatic cyst/pseudocyst
- ▶ ERCP - lithiasis extraction, stent insertion, biopsy

# Thank you for your attention!





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