

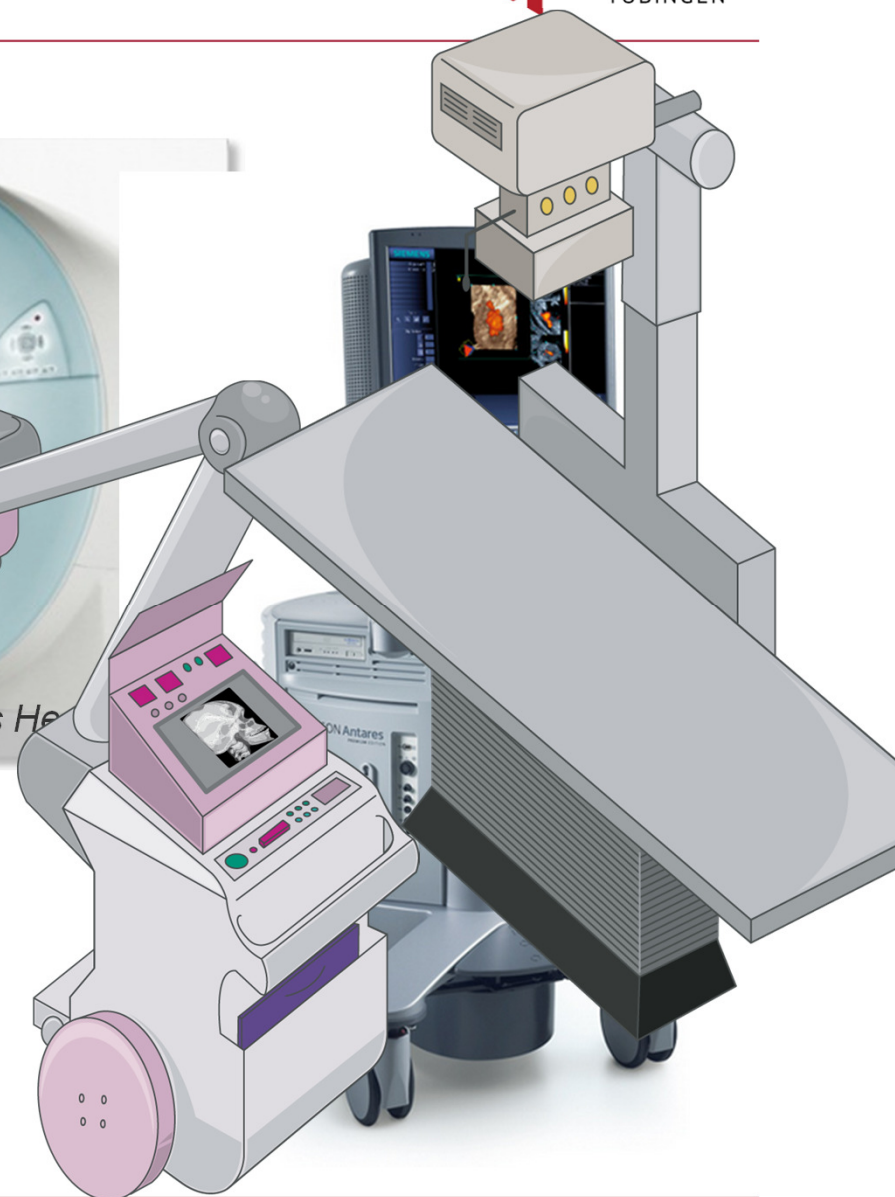
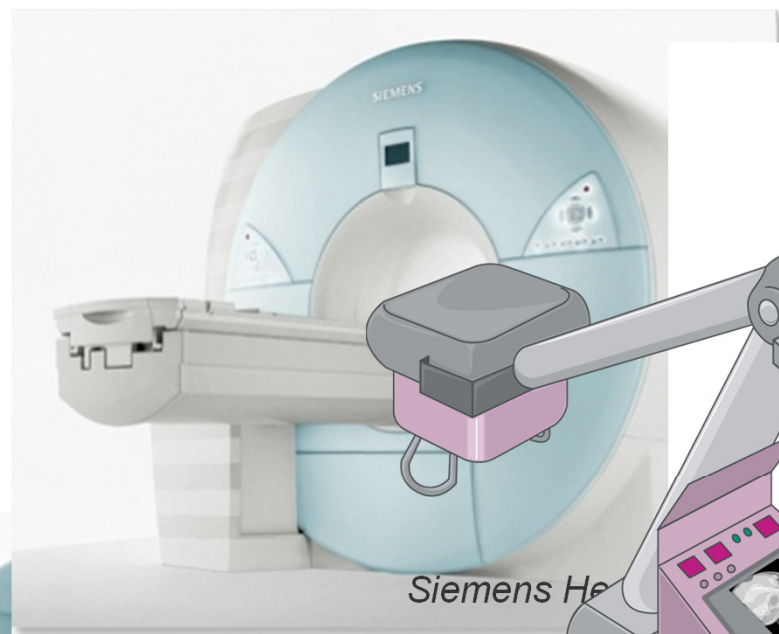
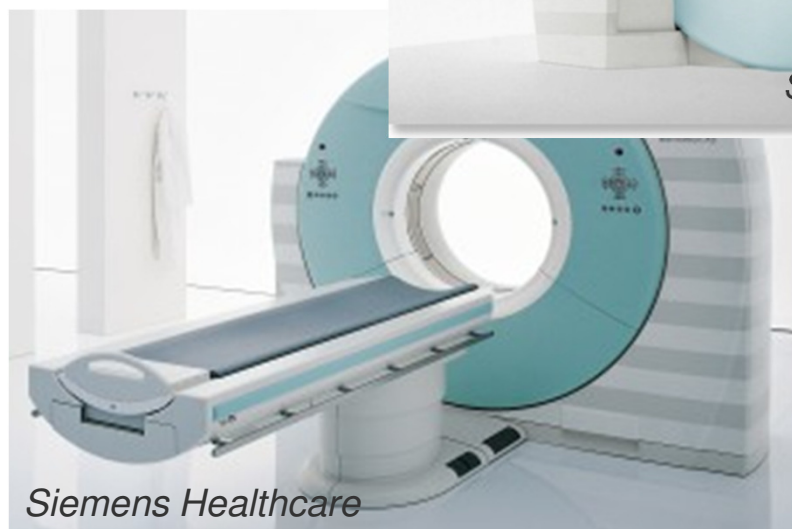


Clinical Cases: Abdomen



Biomedical Technologies Master
Michael Maurer 2017

Department of Diagnostic and Interventional Radiology,
Eberhard Karls University Tuebingen

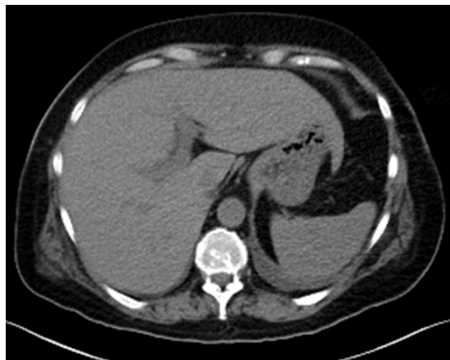


Injection in the arm veins
Flow 2-3 ml/s with Contrast Media Injectors



source: Medrad Bayer Healthcare

Non Enhanced CT



- Stones
- Calcifications

Arteriel phase – 20 s
after injection



- Arteries
- Hypervascular lesions

Heptic phase– 60-90 s
after injection

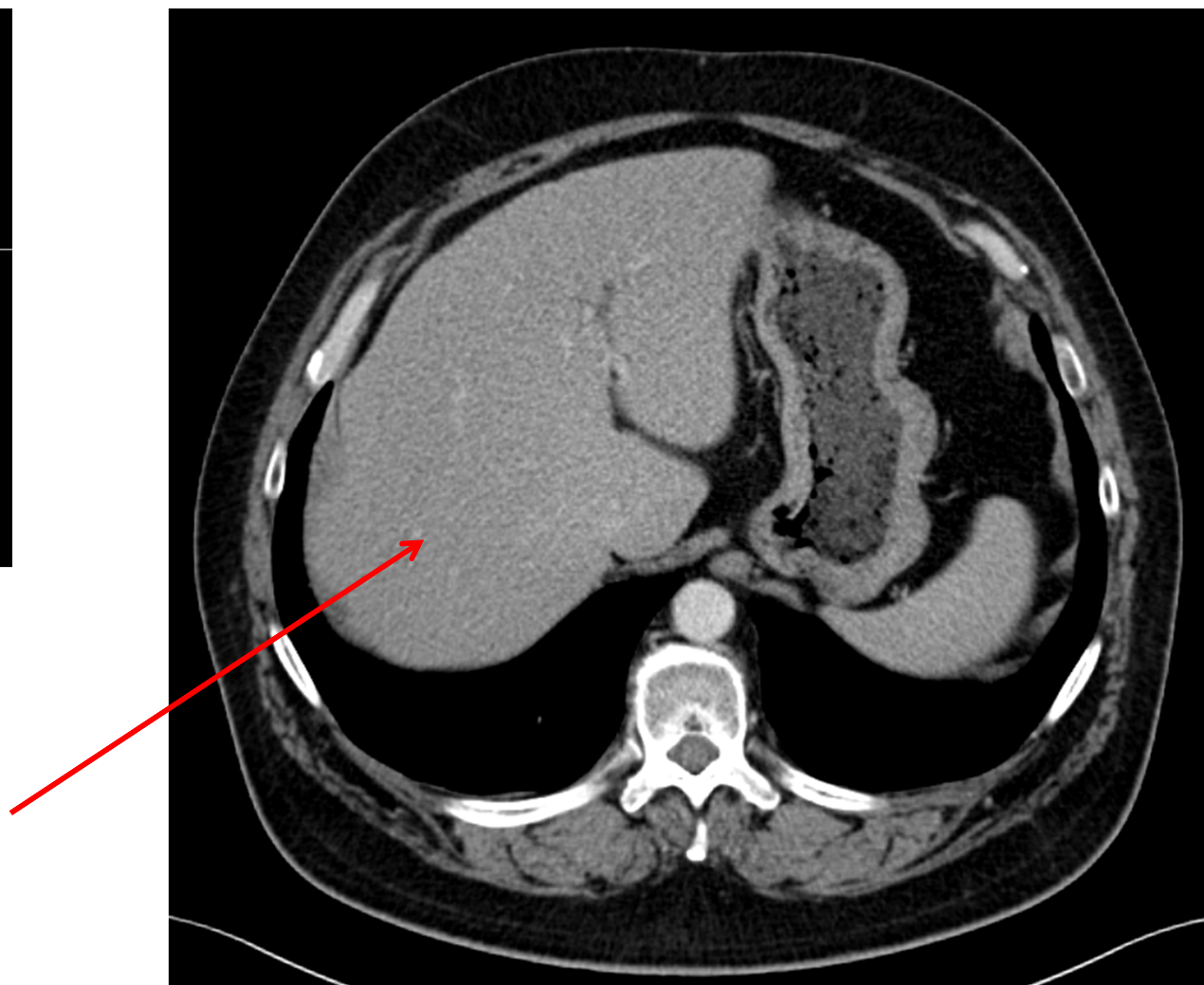


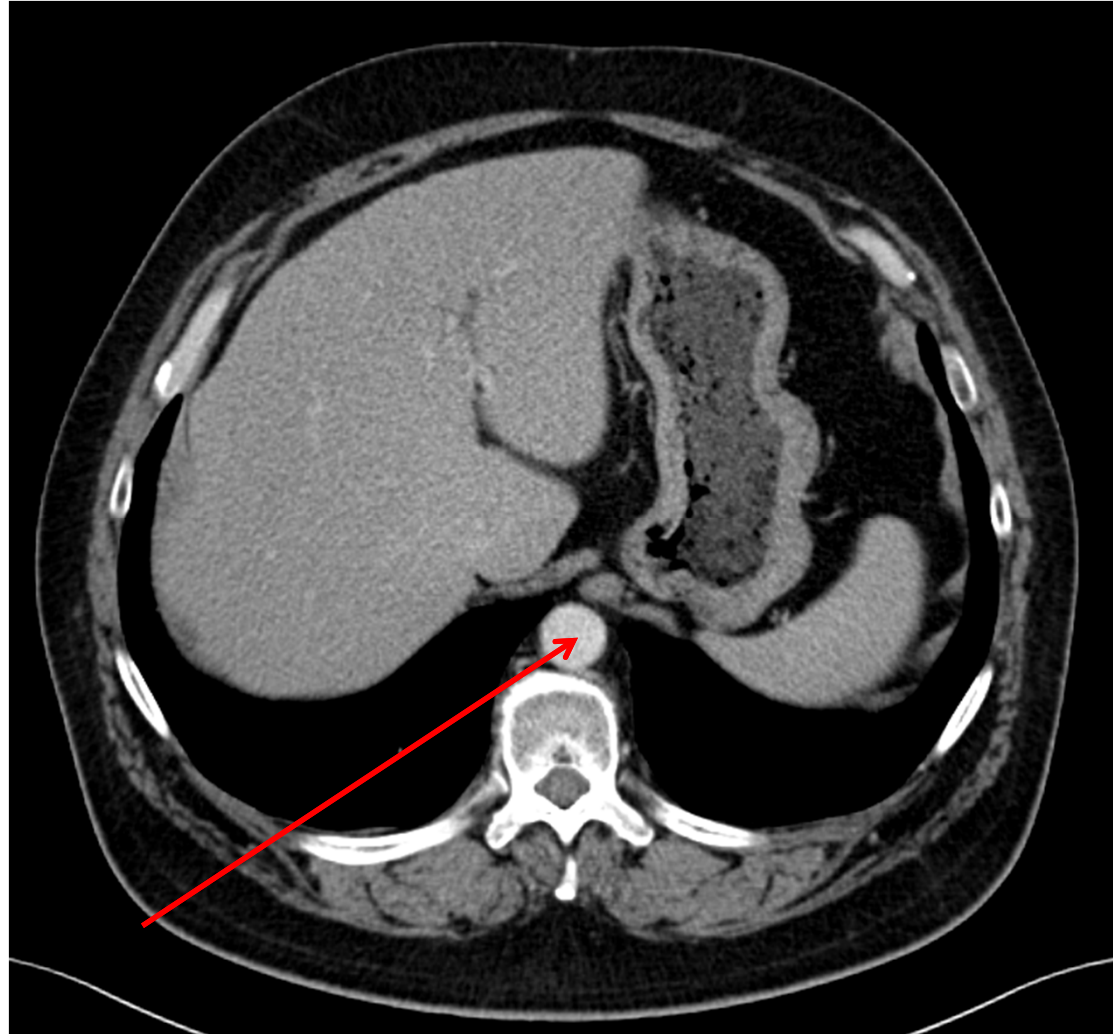
- Hepatic parenchyma
- Metastasis
- Abscess

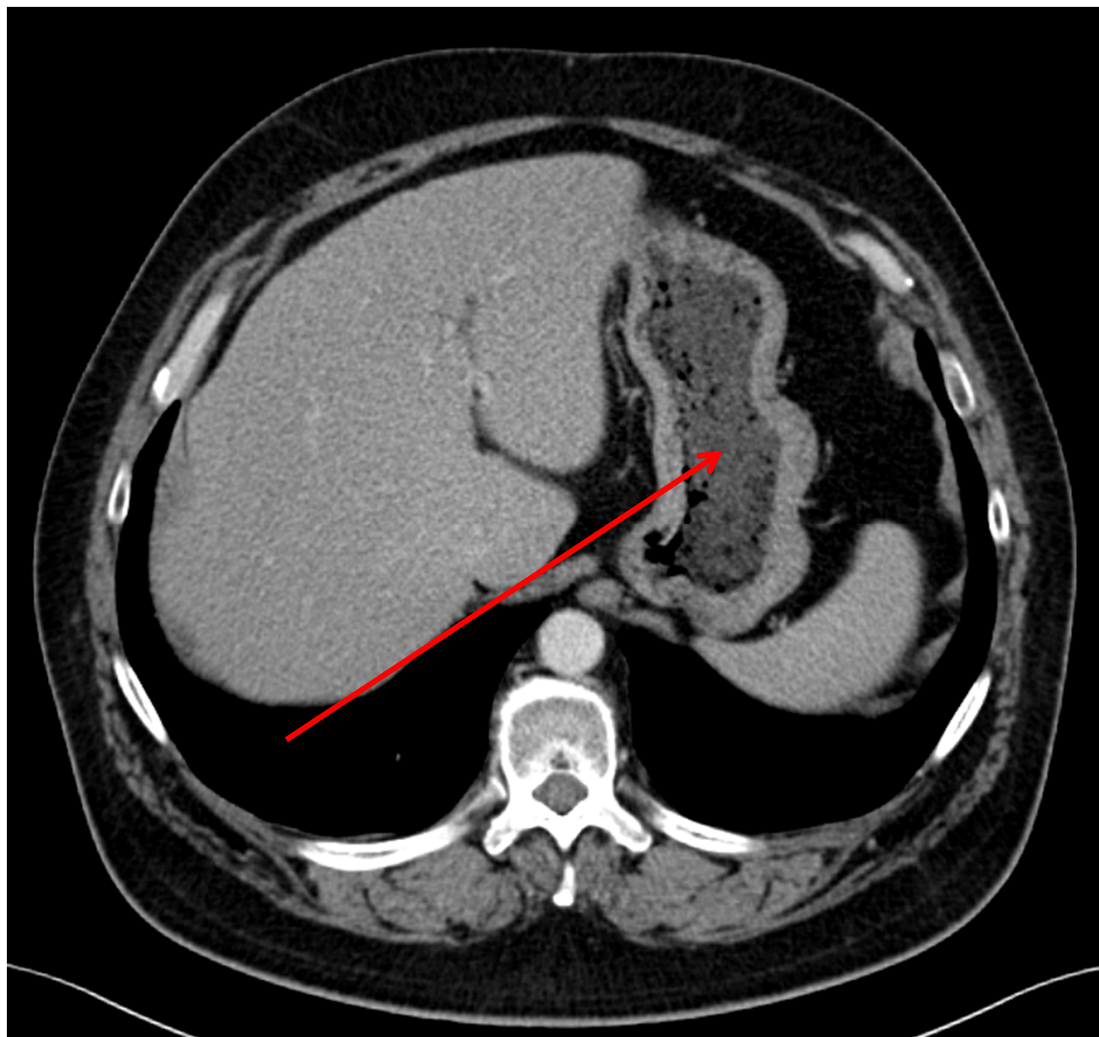
Delayed phase –
5-15 min after injection

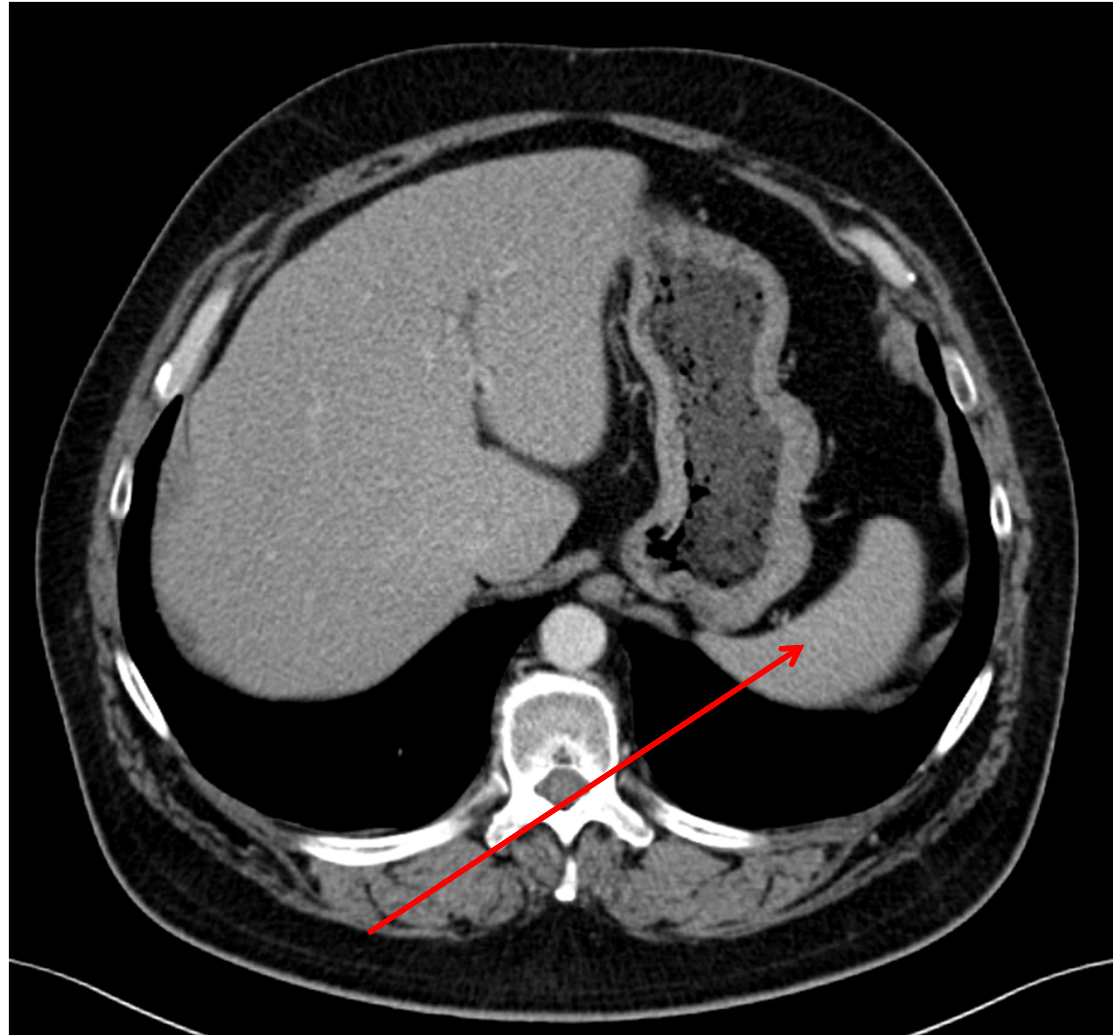


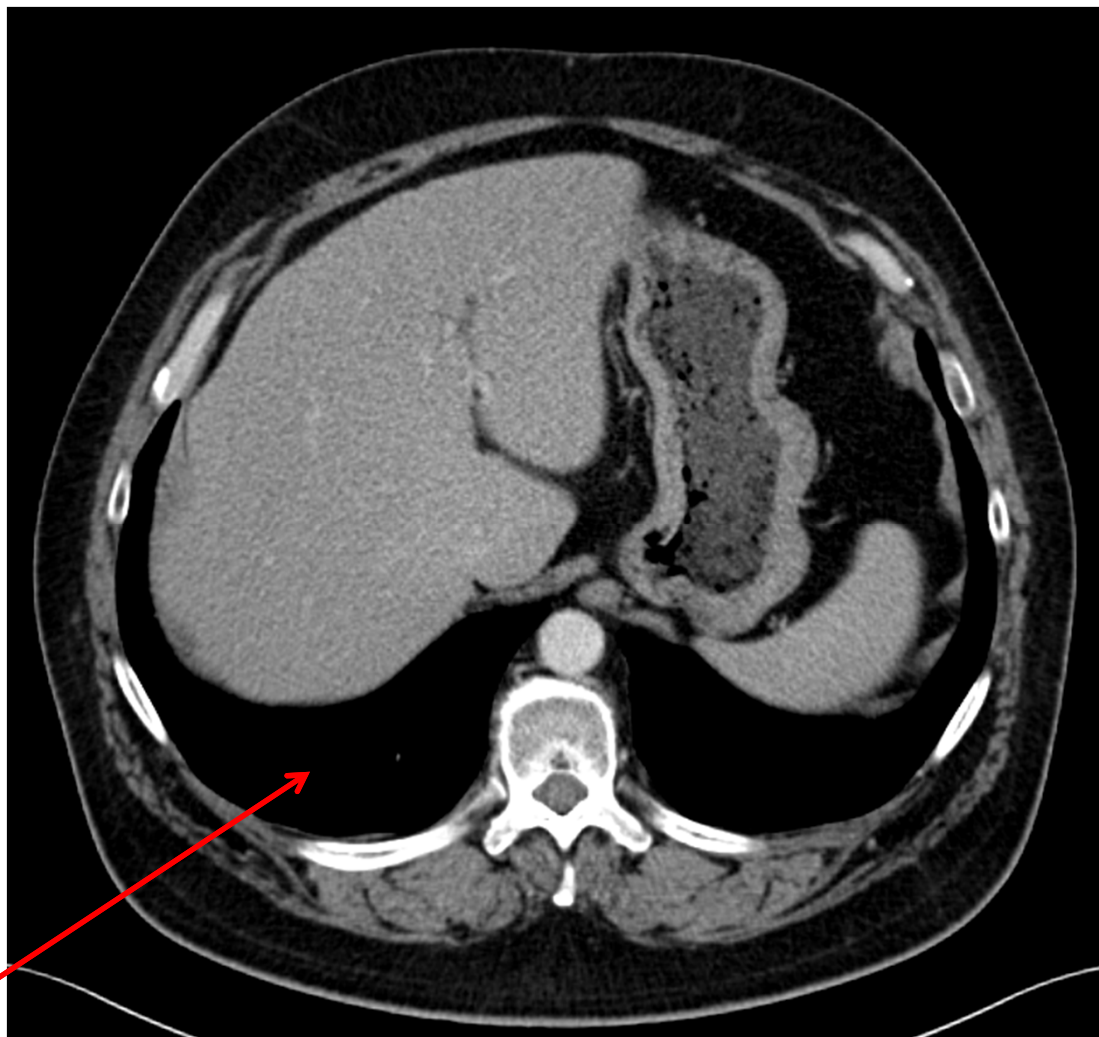
- Fibrotic lesions
- Urinary collecting system

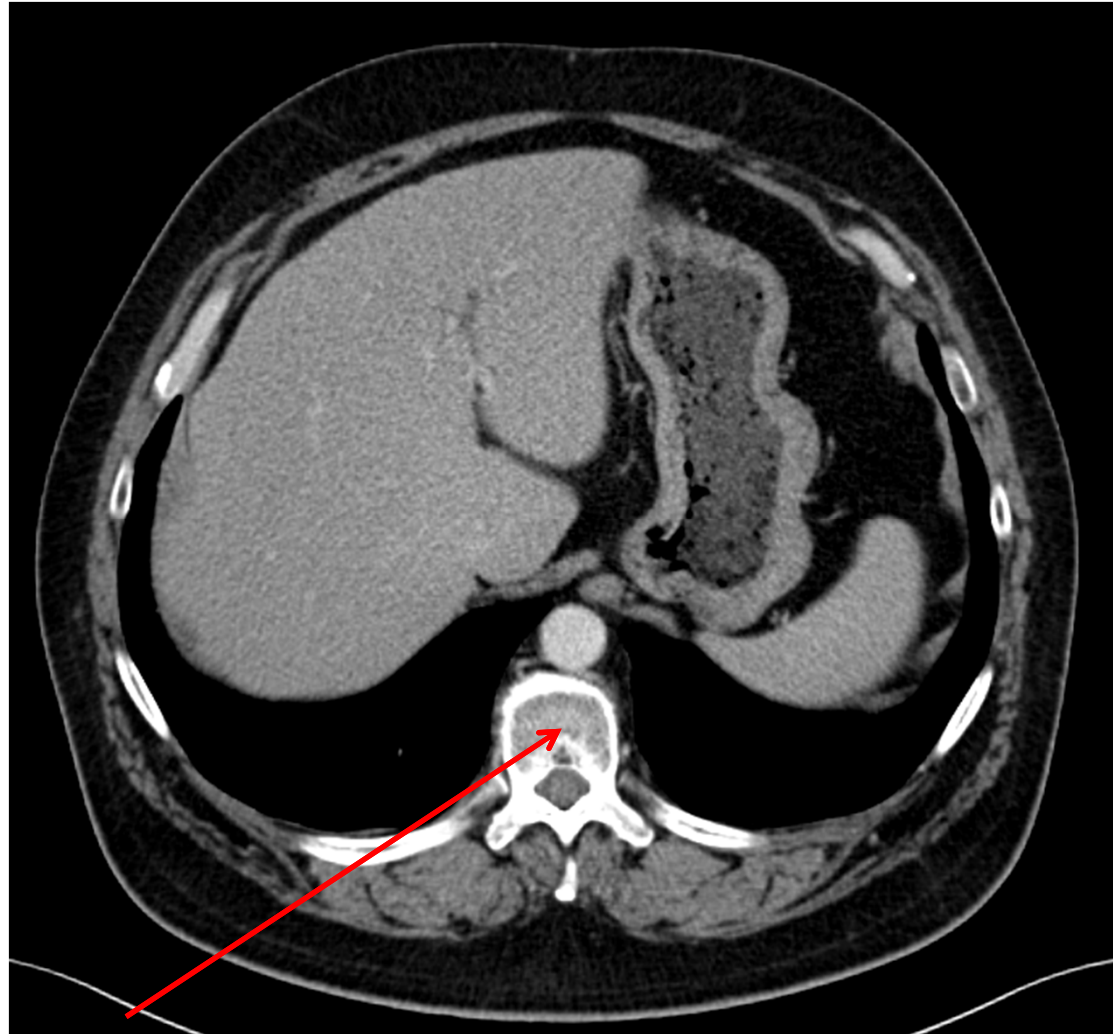


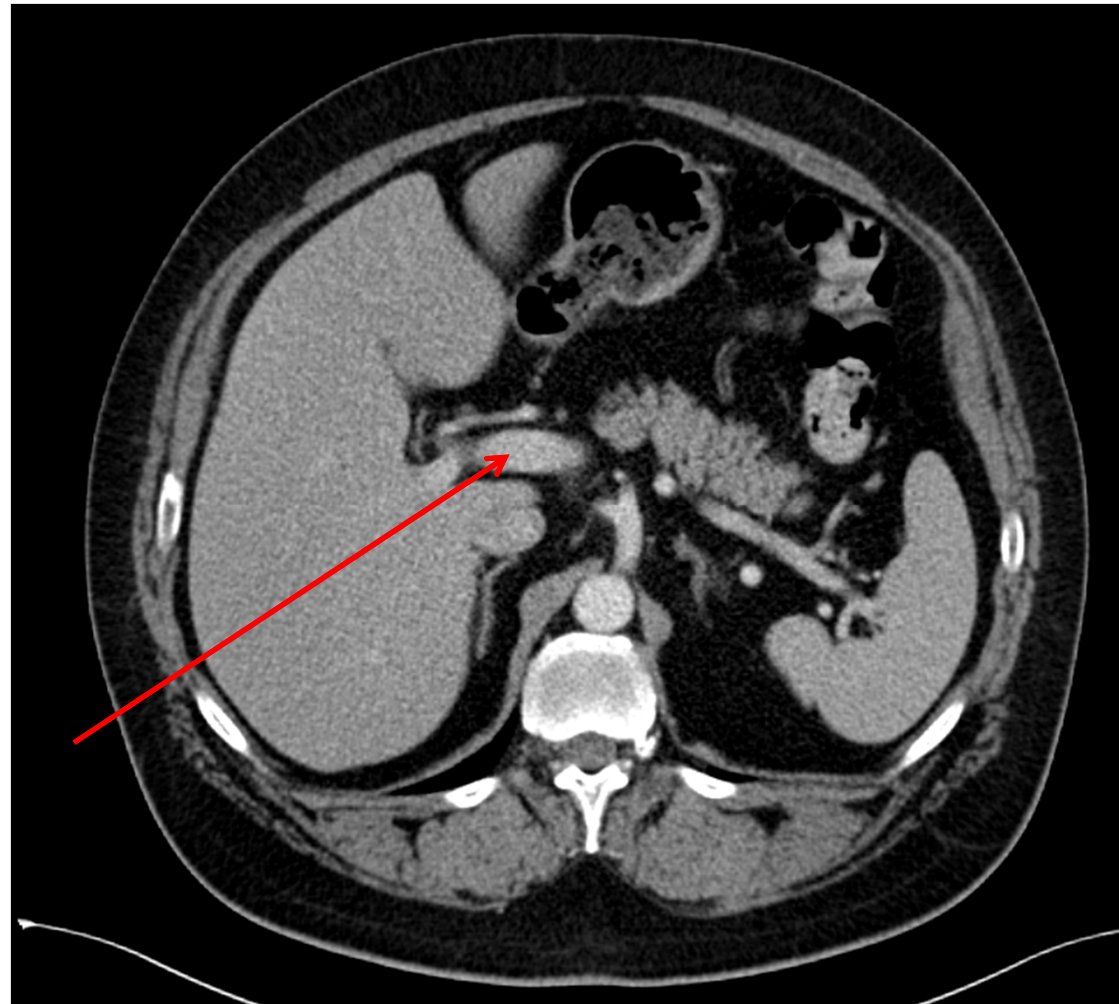
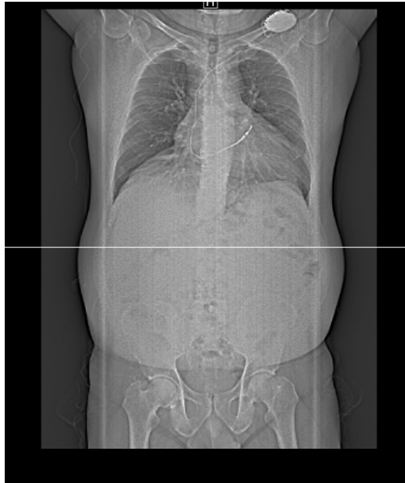


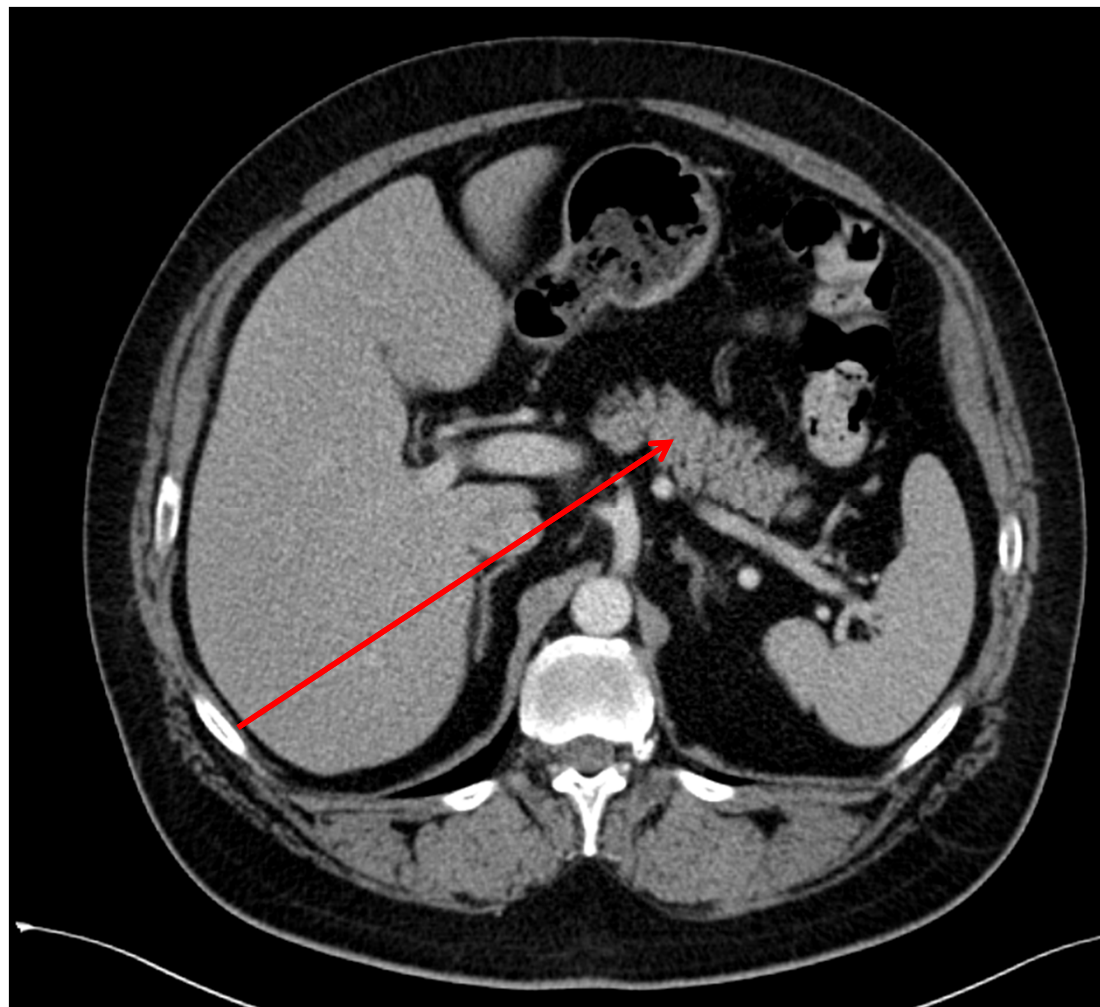
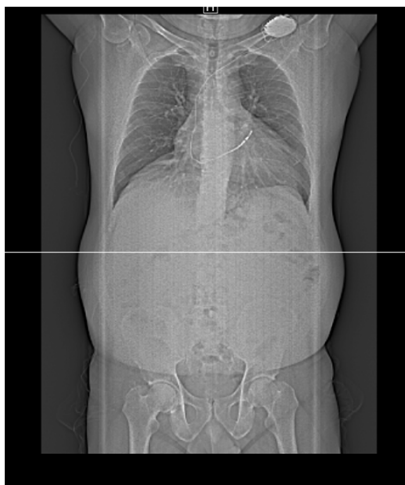


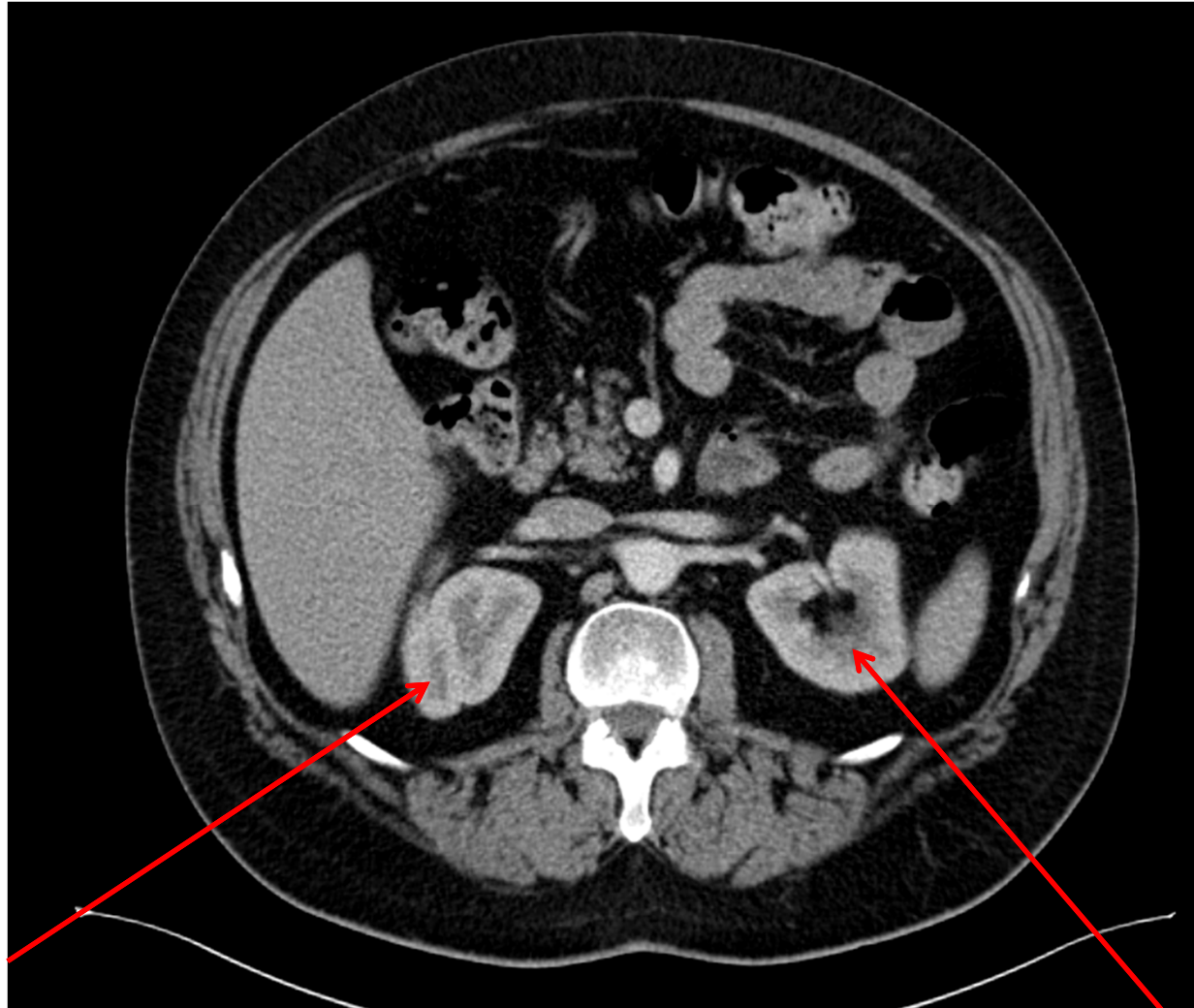
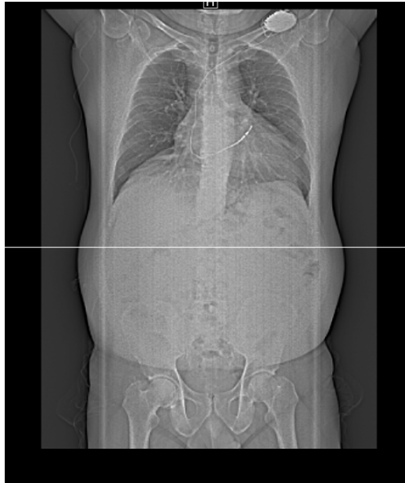


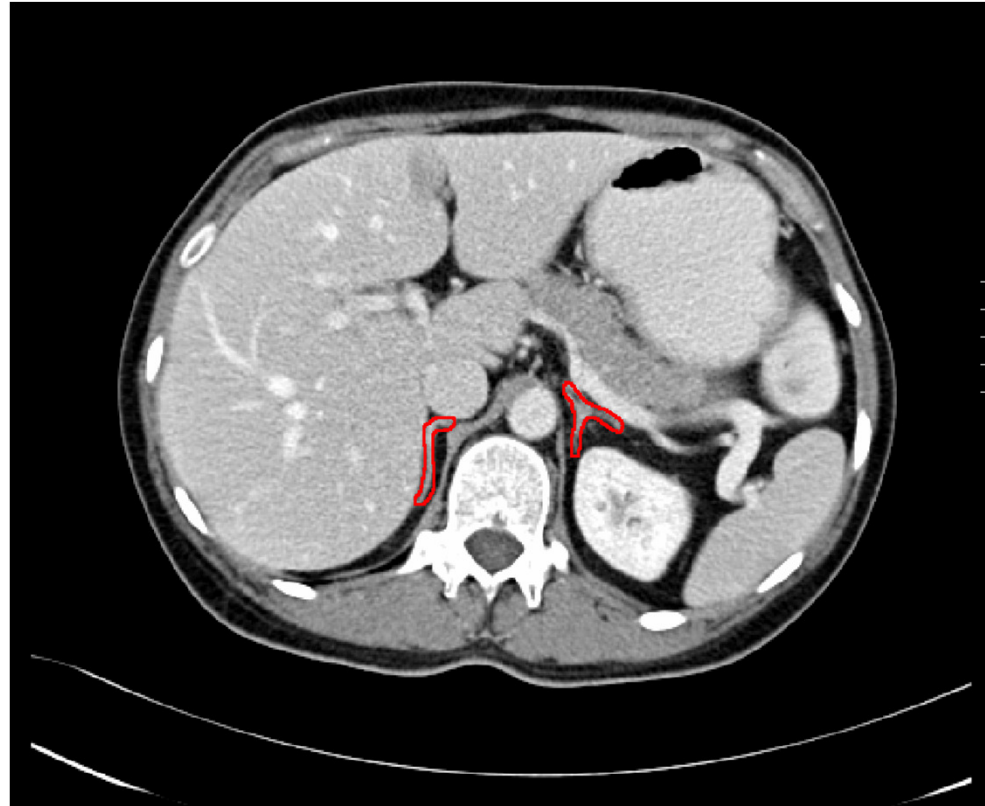


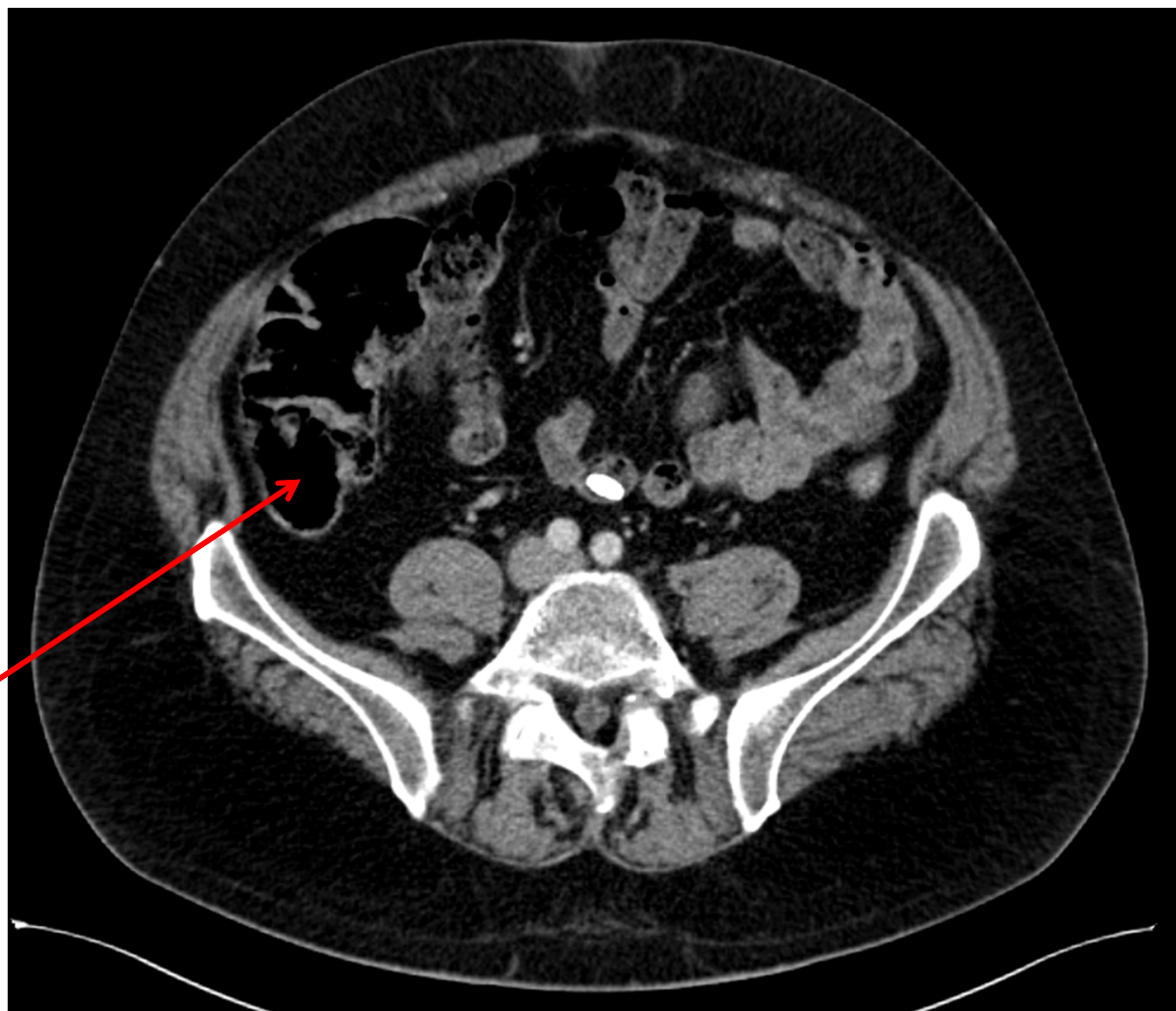


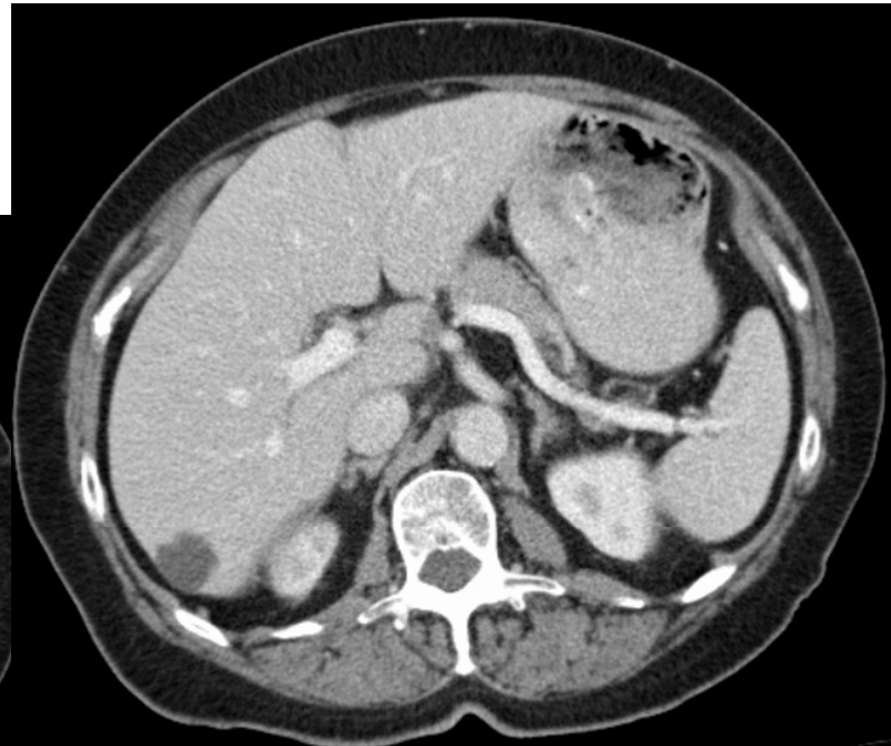
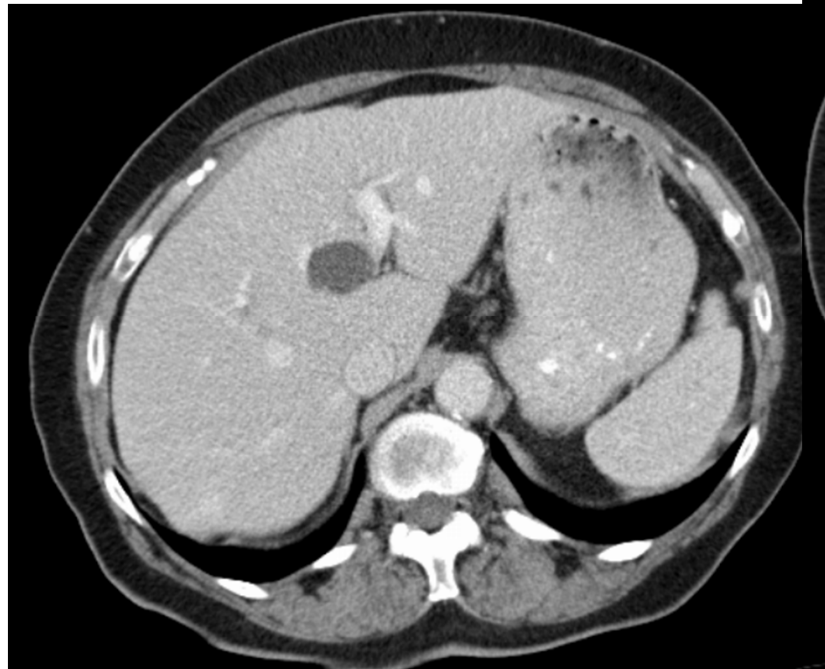
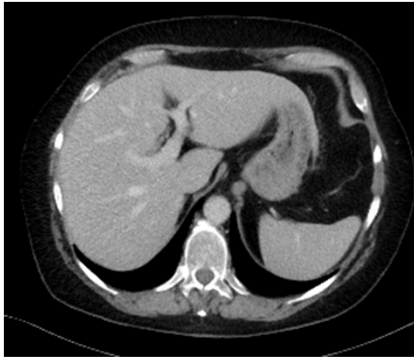






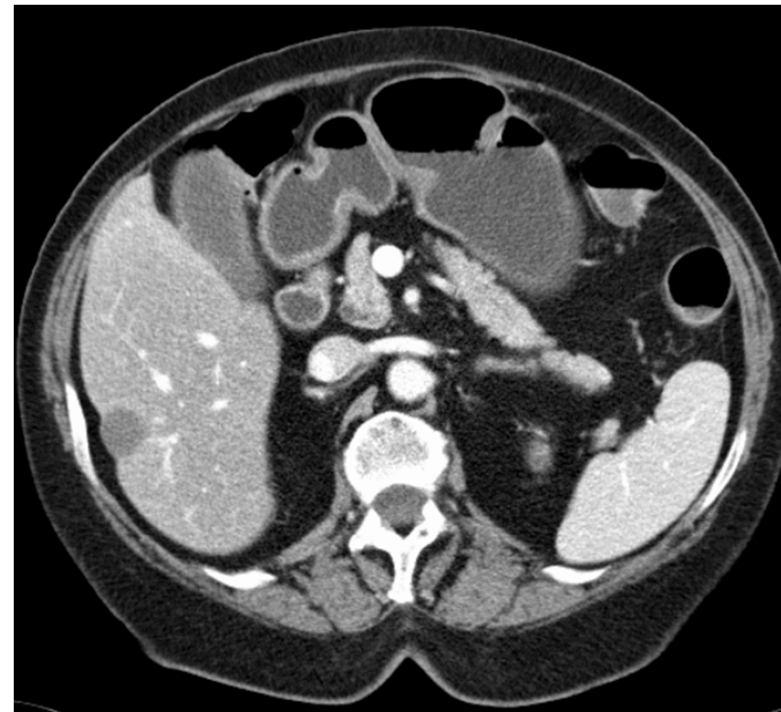
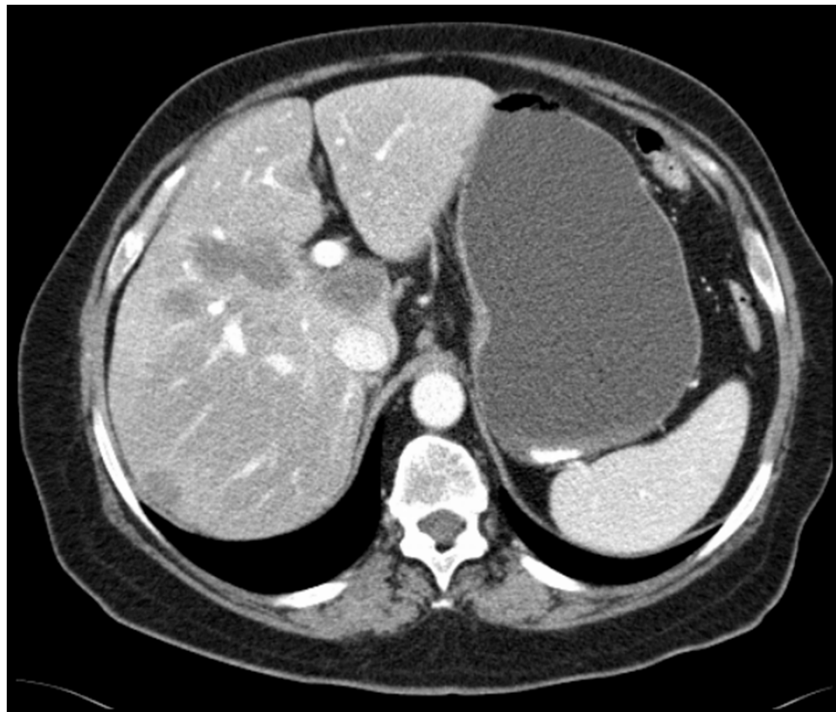






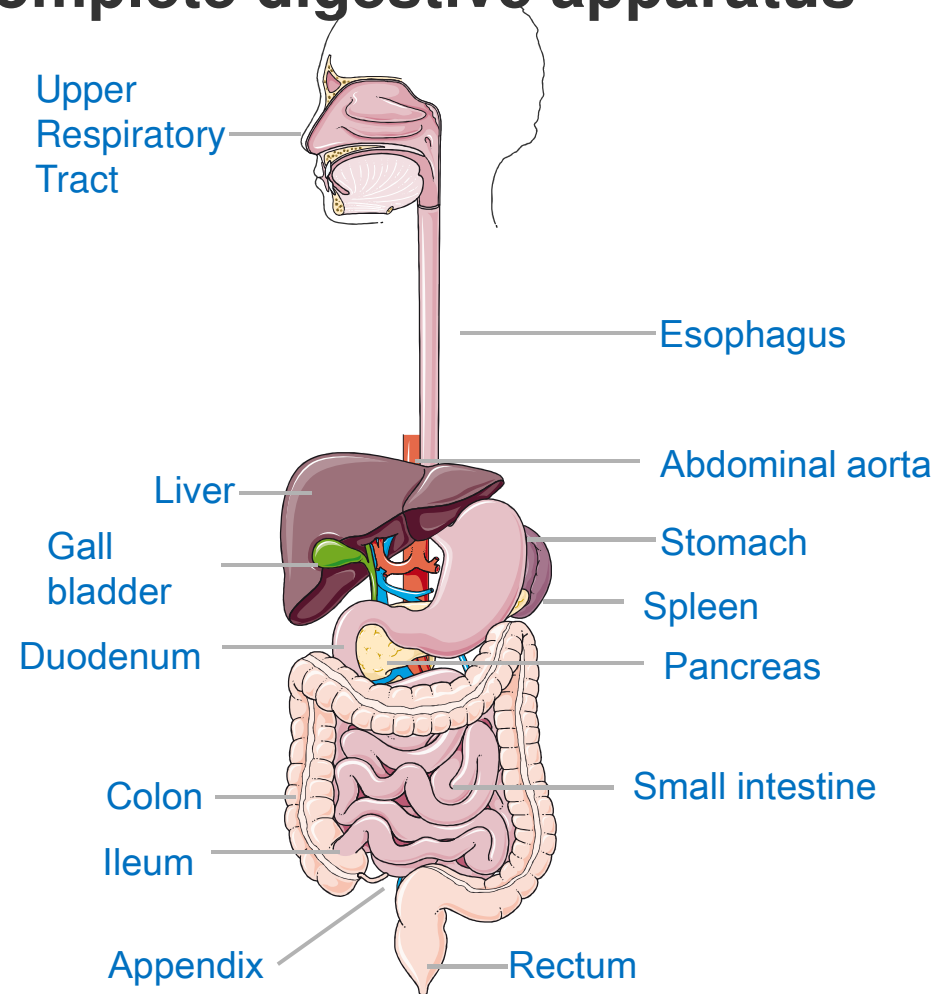


Malignant?





Complete digestive apparatus





Acute abdomen

- sudden, severe abdominal pain.
- It is in many cases a medical emergency, requiring urgent and specific diagnosis.
- Several causes need surgical treatment.
- Often there is a peritonitis (inflammation of the peritoneum)
- Physical examination: rigidity of the abdomen, massive pain



Acute appendicitis

Acute peptic ulcer

Acute cholecystitis

Acute pancreatitis

Acute intestinal ischemia

Acute diverticulitis

Ectopic pregnancy with tubal rupture

Ovarian torsion

Acute peritonitis

Bowel volvulus

Bowel obstruction

Acute pyelonephritis

Biliary colic

Abdominal aortic aneurysm

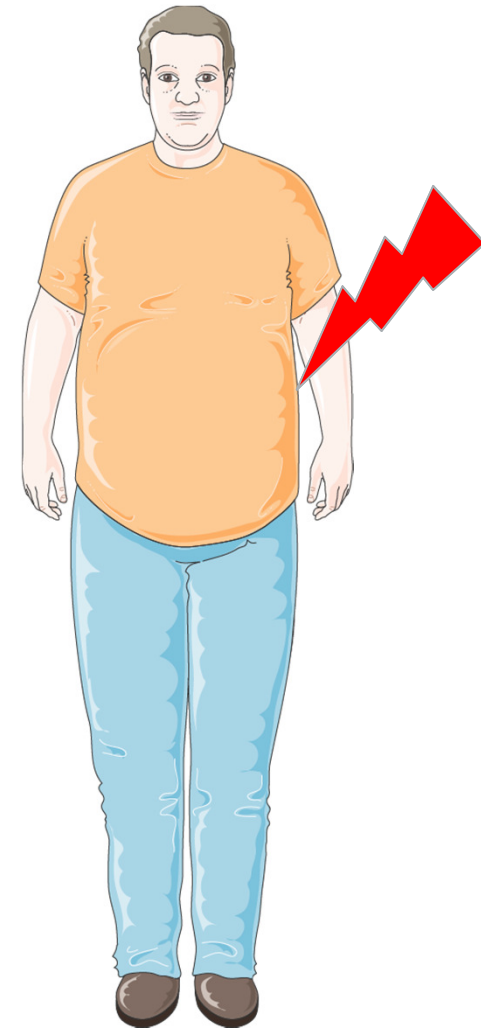
Ruptured spleen

Kidney stone

Acute ureteric colic

Case 1 Rainer M.

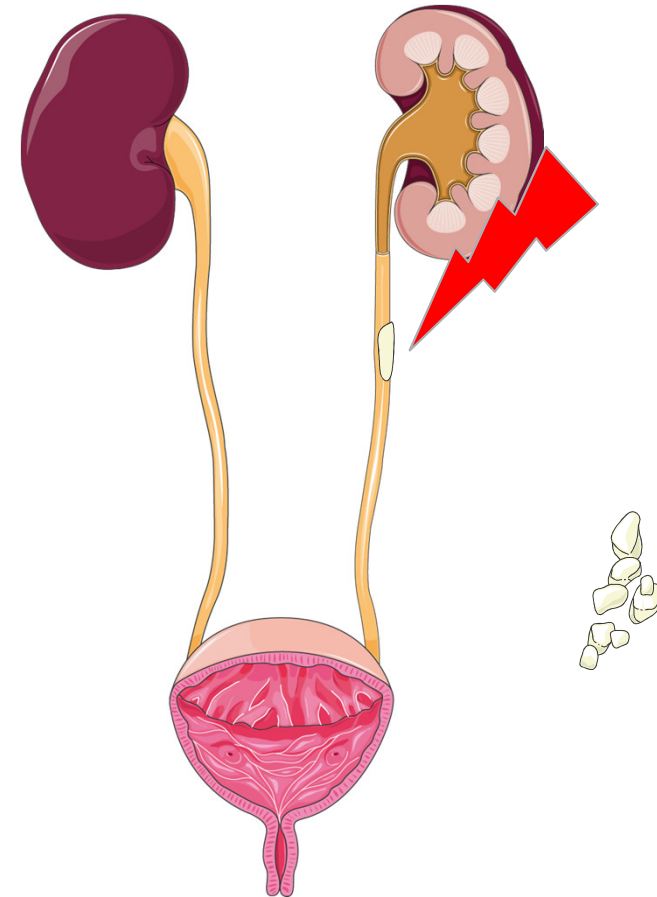
- Sex: Male
- Age: 62 years
- Symptoms: Intermittent severe pain in the lower back (left) since 1 hour





Acute ureteric colic

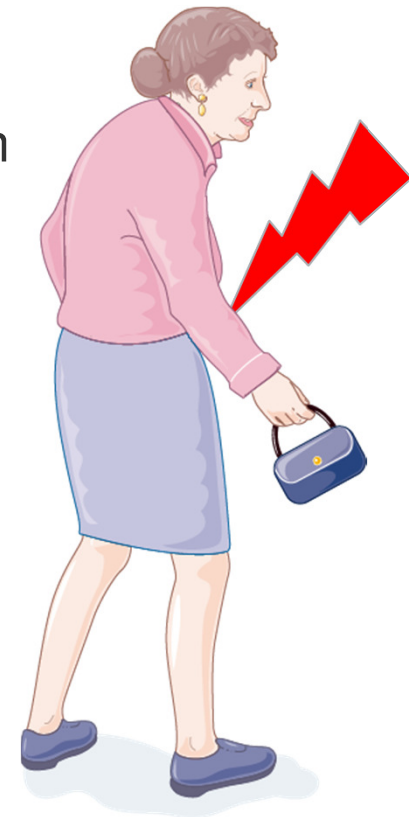
- Urolithiasis

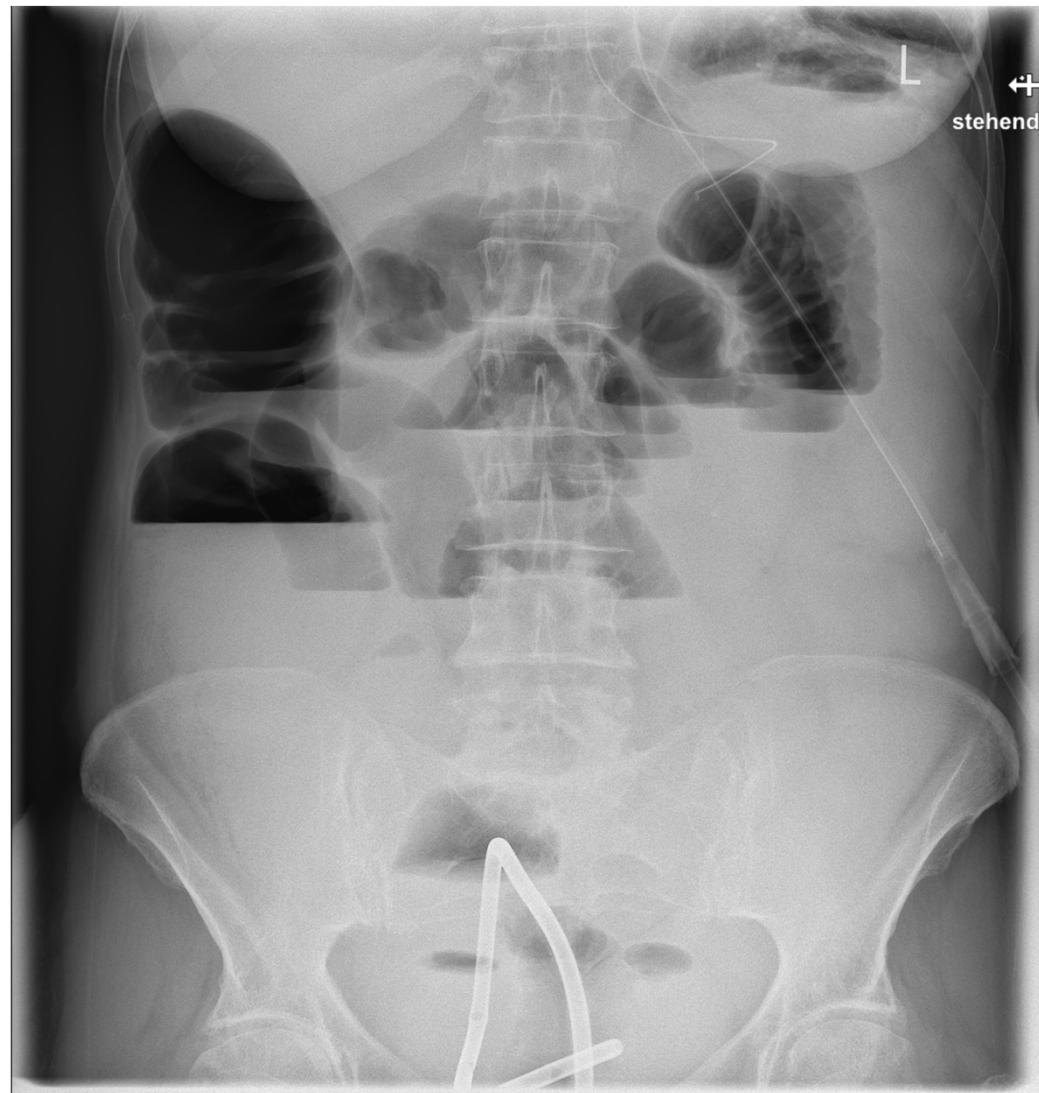




Case 2 Seja W.

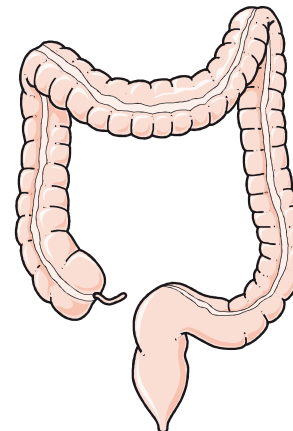
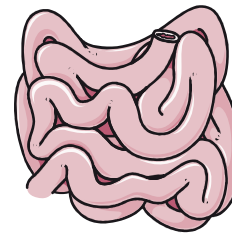
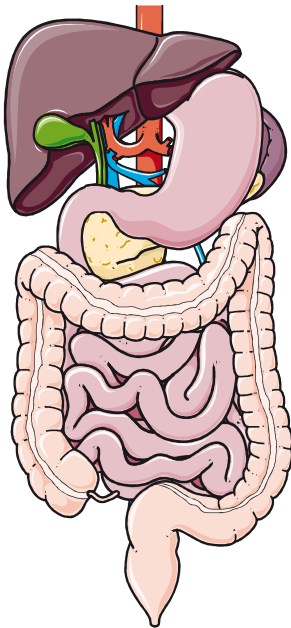
- Sex: Female
- Age: 84 years
- Symptoms: Severe pain in the abdomen, swollen abdomen and constipation





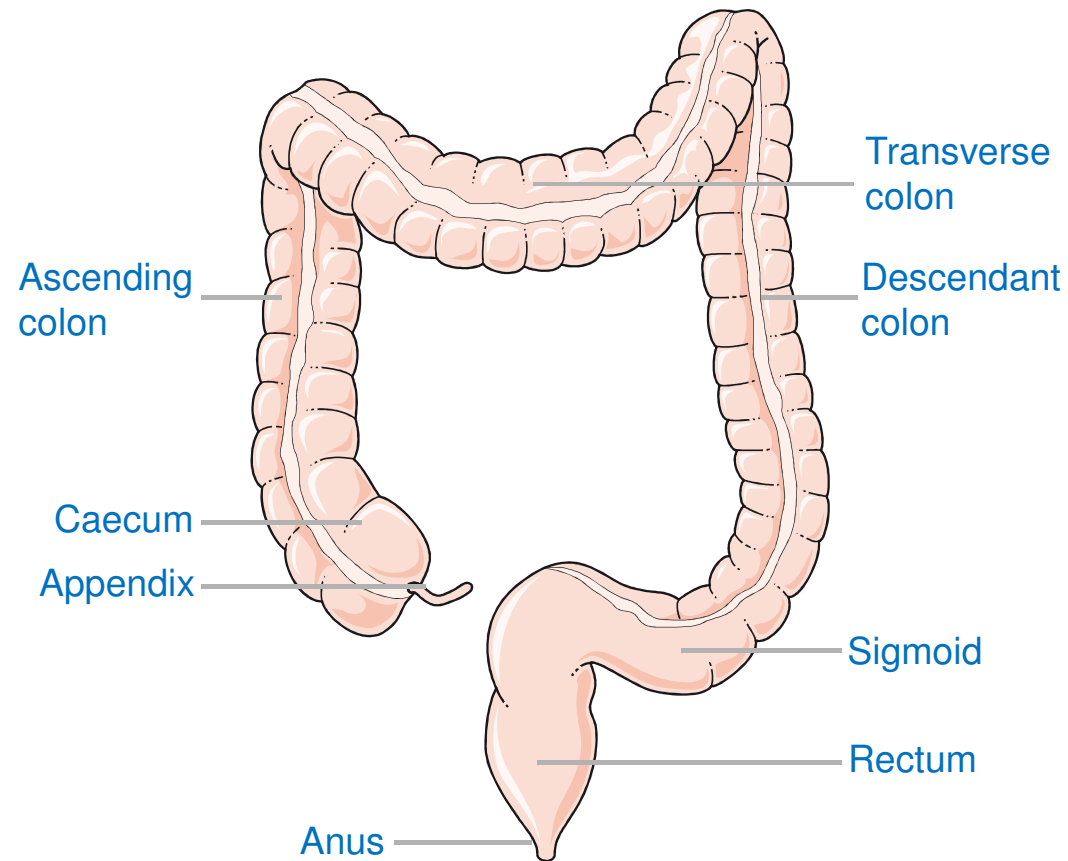


- Bowel obstruction





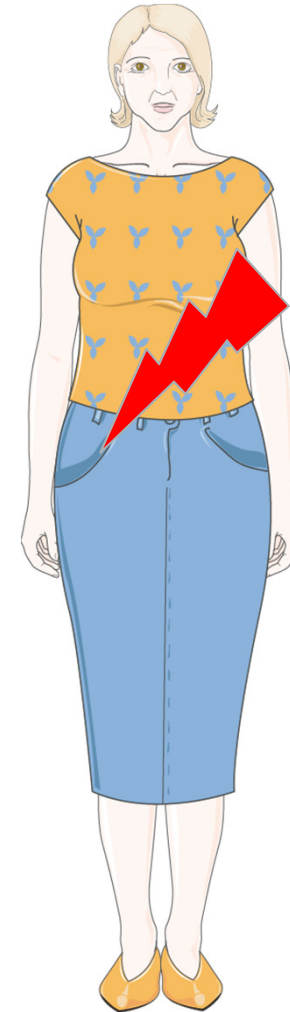
Bowel obstruction



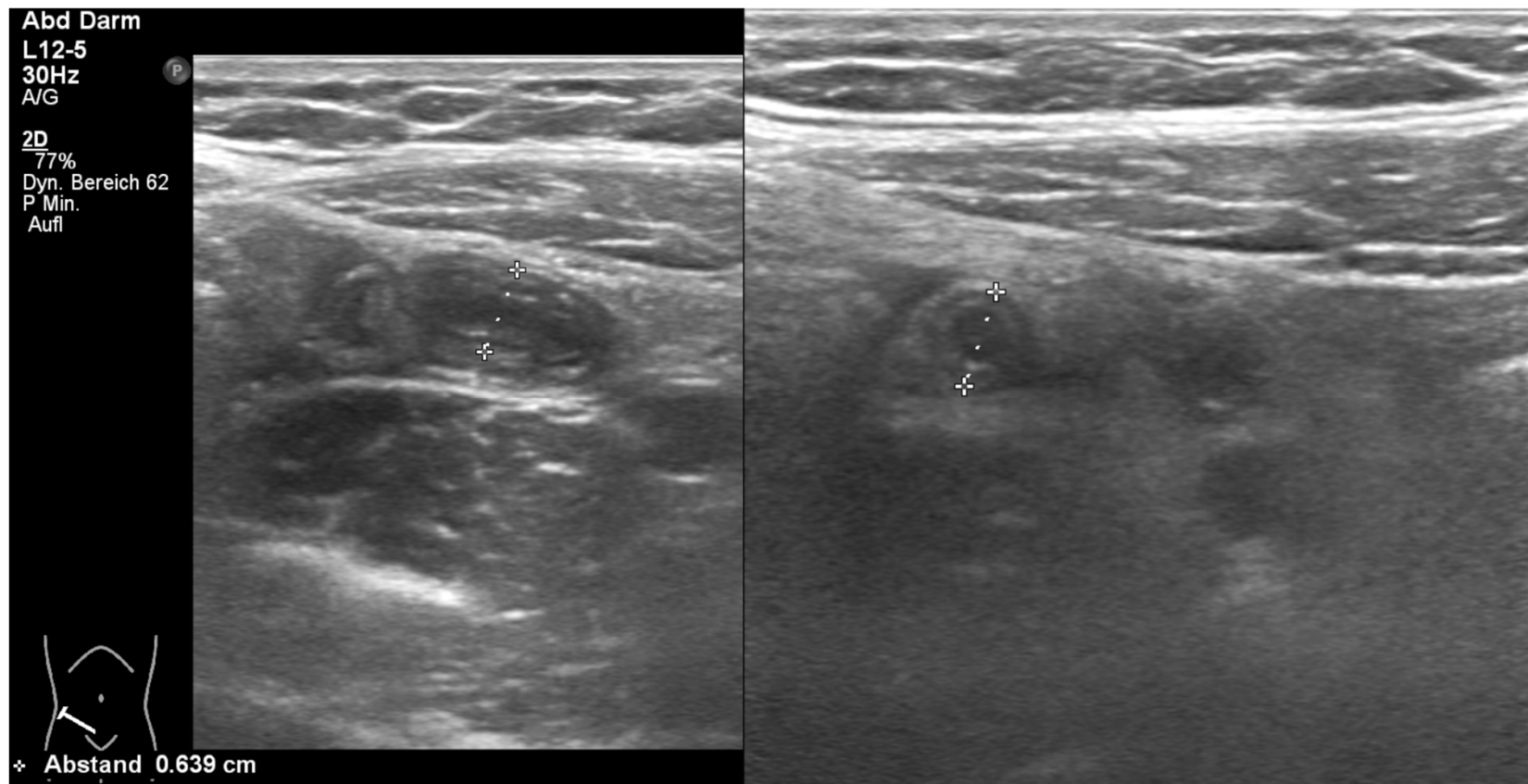


Case 3 Iris K.

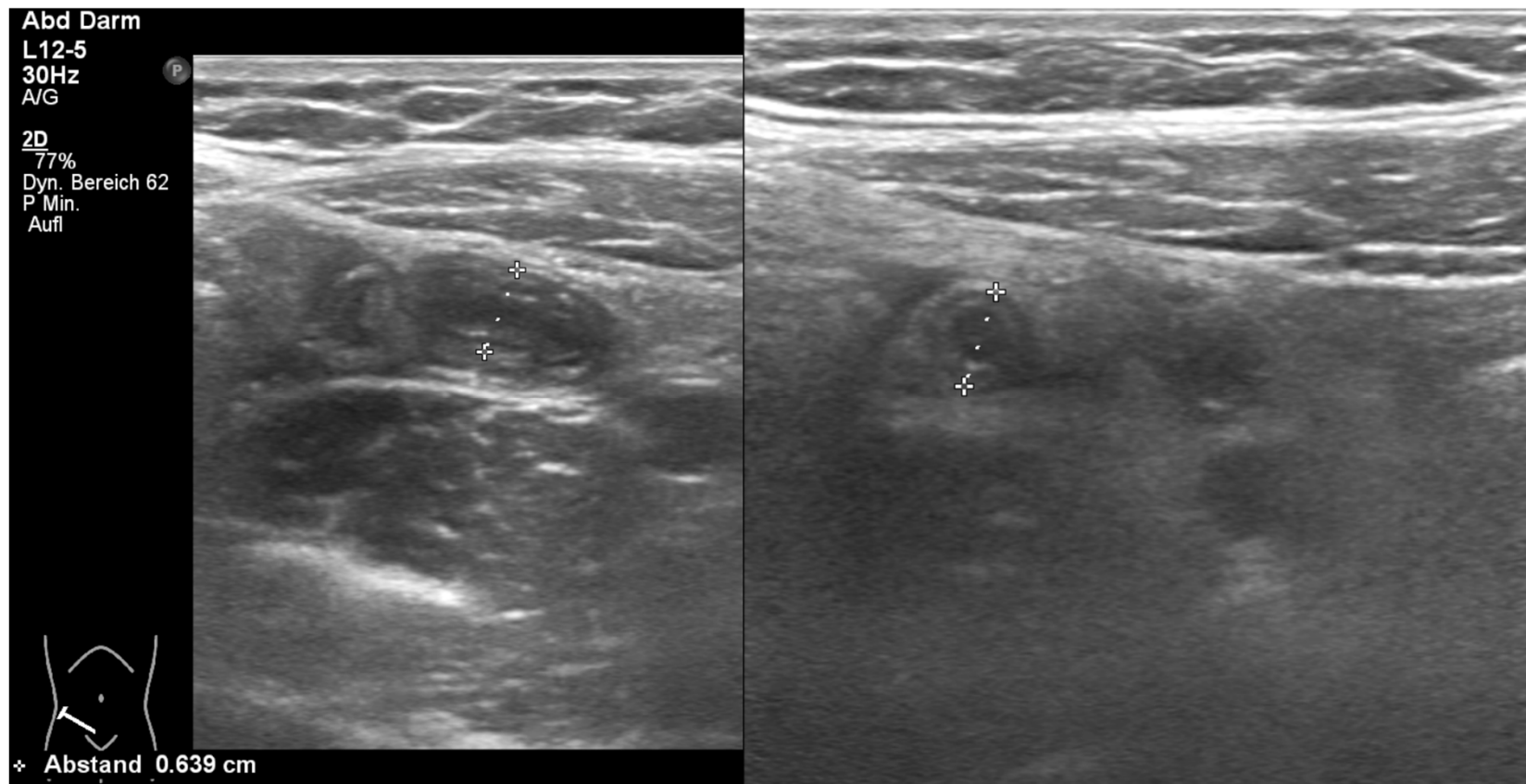
- Sex: Female
- Age: 57 years
- Symptoms: Pain in the lower right abdomen.



Ultrasound



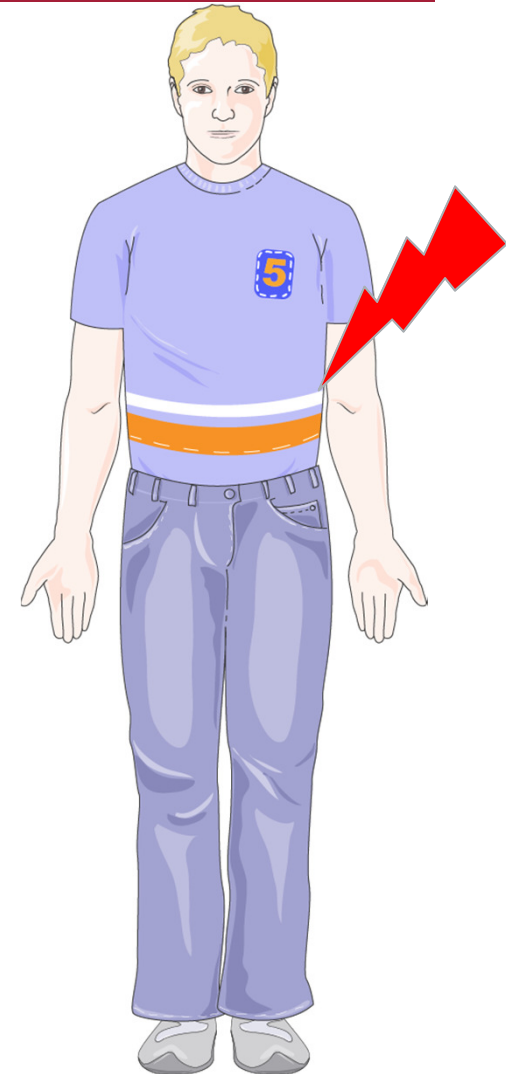
Appendizitis





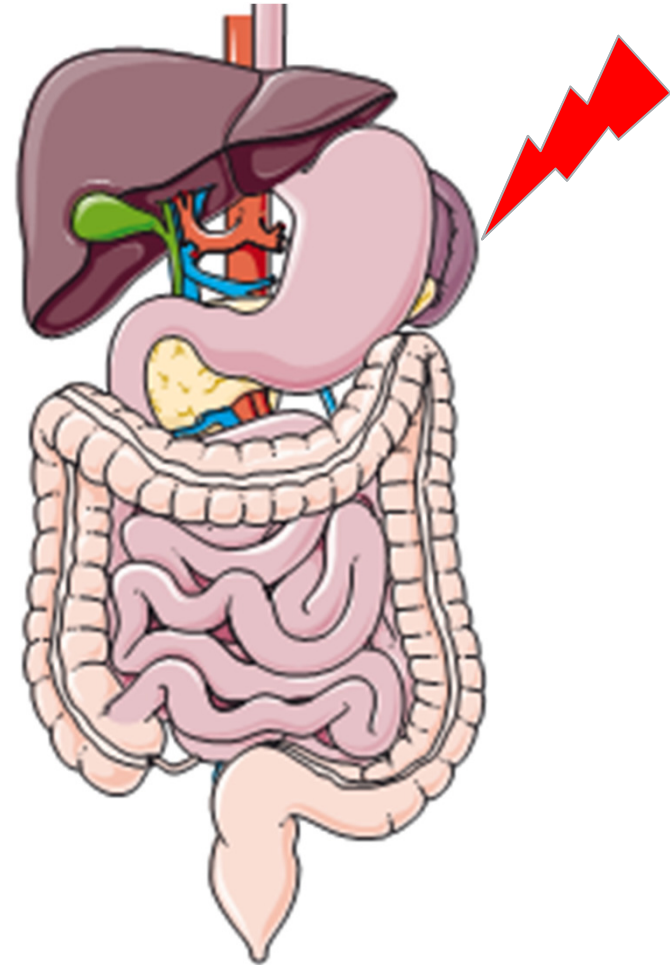
Case 4 Tim D. H.

- Sex: Male
- Age: 16 years
- Symptoms: Abdominal pain after car accident





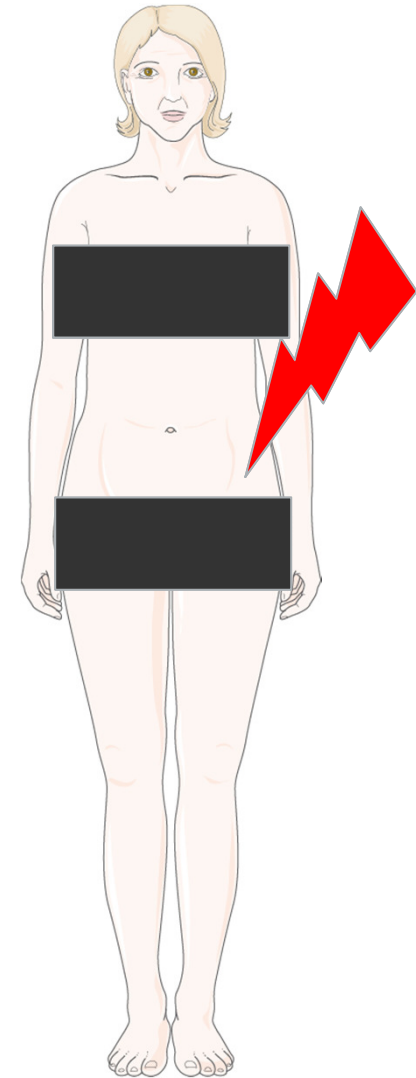
Trauma - Ruptured spleen





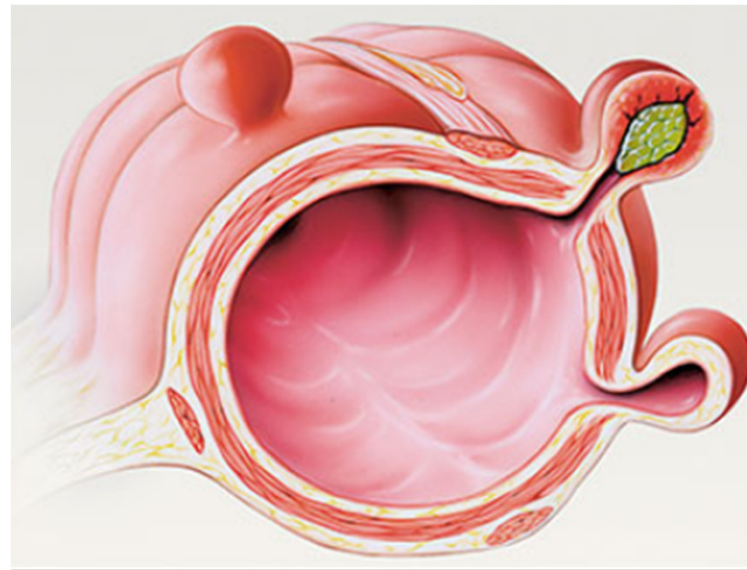
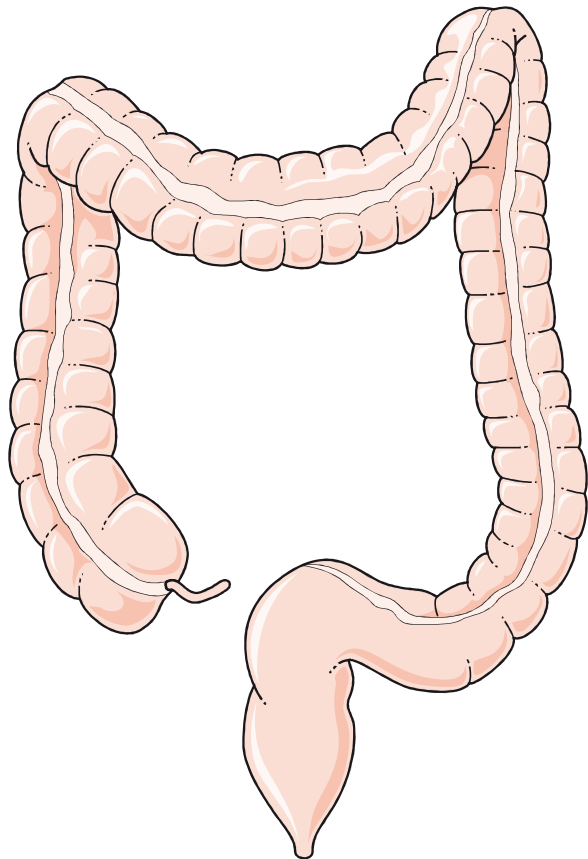
Case 5 Gudrun H.

- Sex: Female
- Age: 59 years
- Symptoms: Pain in the lower left abdomen.





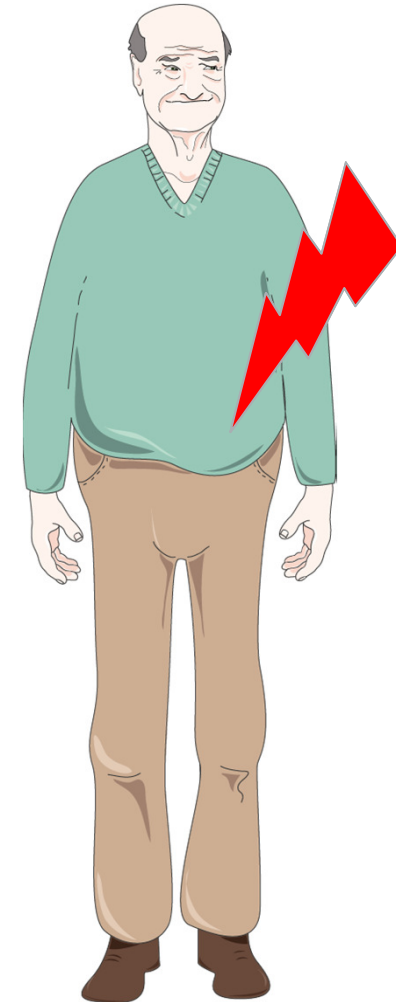
Divertikulitis





Case 6 Andreas C.

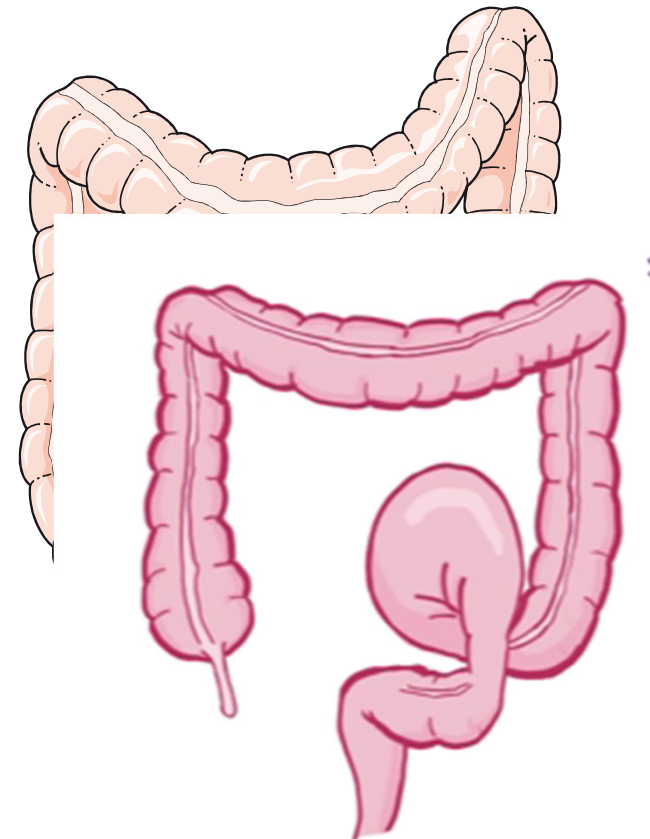
- Sex: Male
- Age: 88 years
- Symptoms: Severe pain in the abdomen, swollen abdomen and constipation





Bowel volvulus

- Twist in the intestine and surrounding Mesentery
- Causes bowel obstruction and sometimes Infarction
- Usually treated with surgery



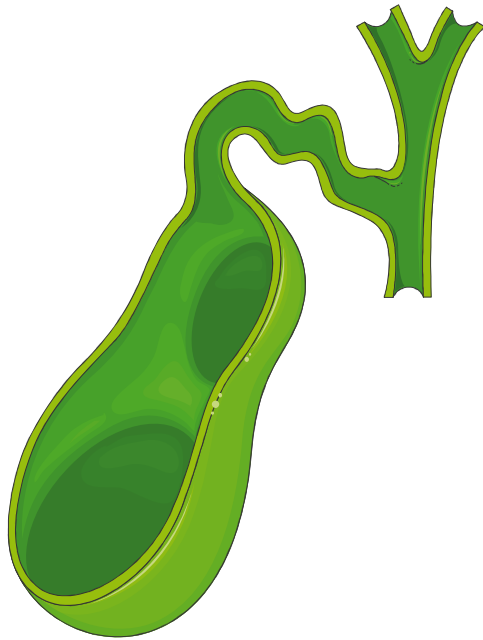


Case 7 Elke R.

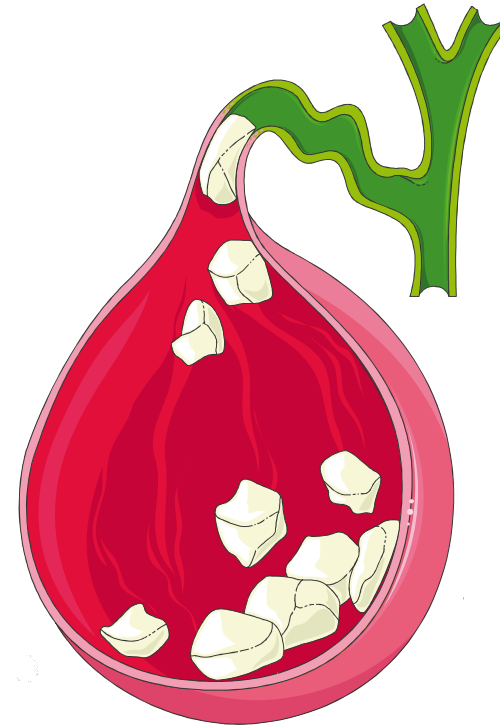
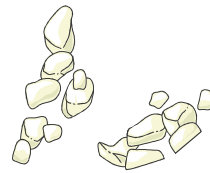
- Sex: Female
- Age: 54 years
- Symptoms: Right upper abdominal pain, nausea and vomiting after dinner



Acute cholecystitis



Normal gallbladder

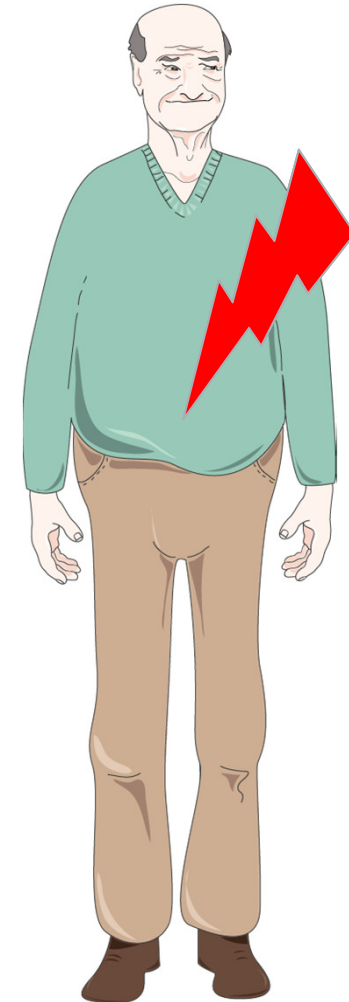


Big calculi with
cholecystitis



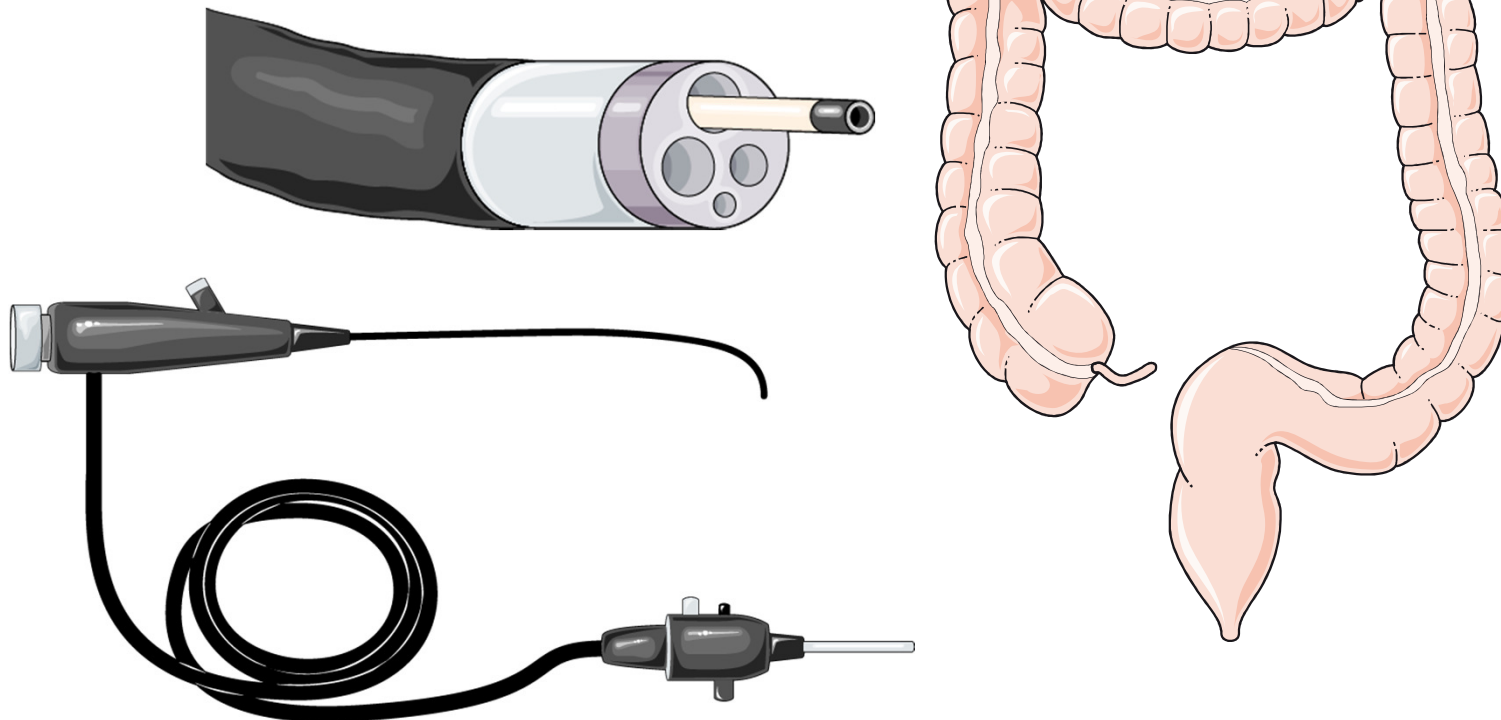
Case 8 Martin V.

- Sex: Male
- Age: 68 years
- Symptoms: Severe pain after Coloscopy



Acute peritonitis after perforation of the colon

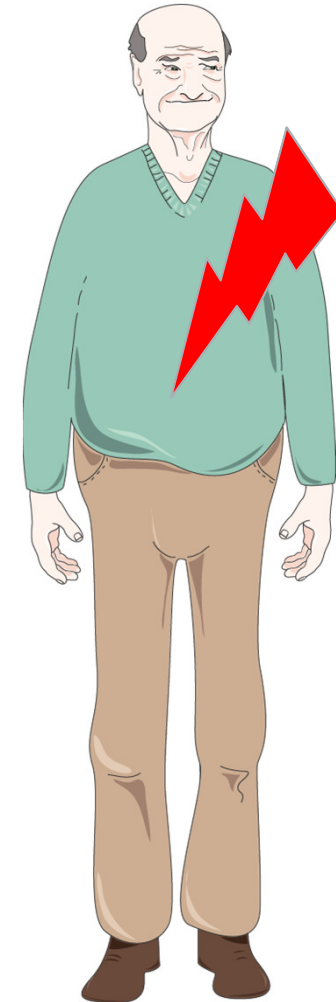
- Severe Pain after Colonoscopy





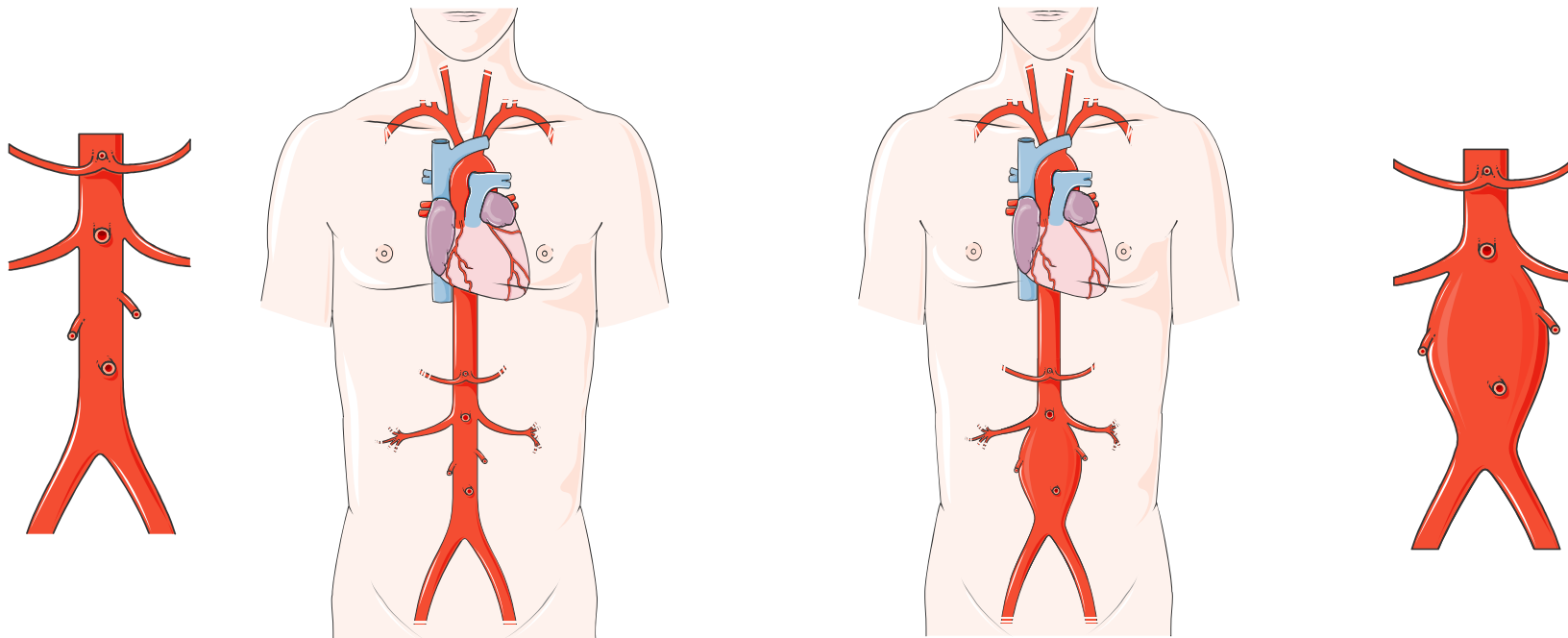
Case 9 Ernst H.

- Sex: Male
- Age: 84 years
- Symptoms: Sudden pain in the abdomen





Abdominal aortic aneurysm





Vielen Dank für Ihre Aufmerksamkeit!