



Retroperitoneum

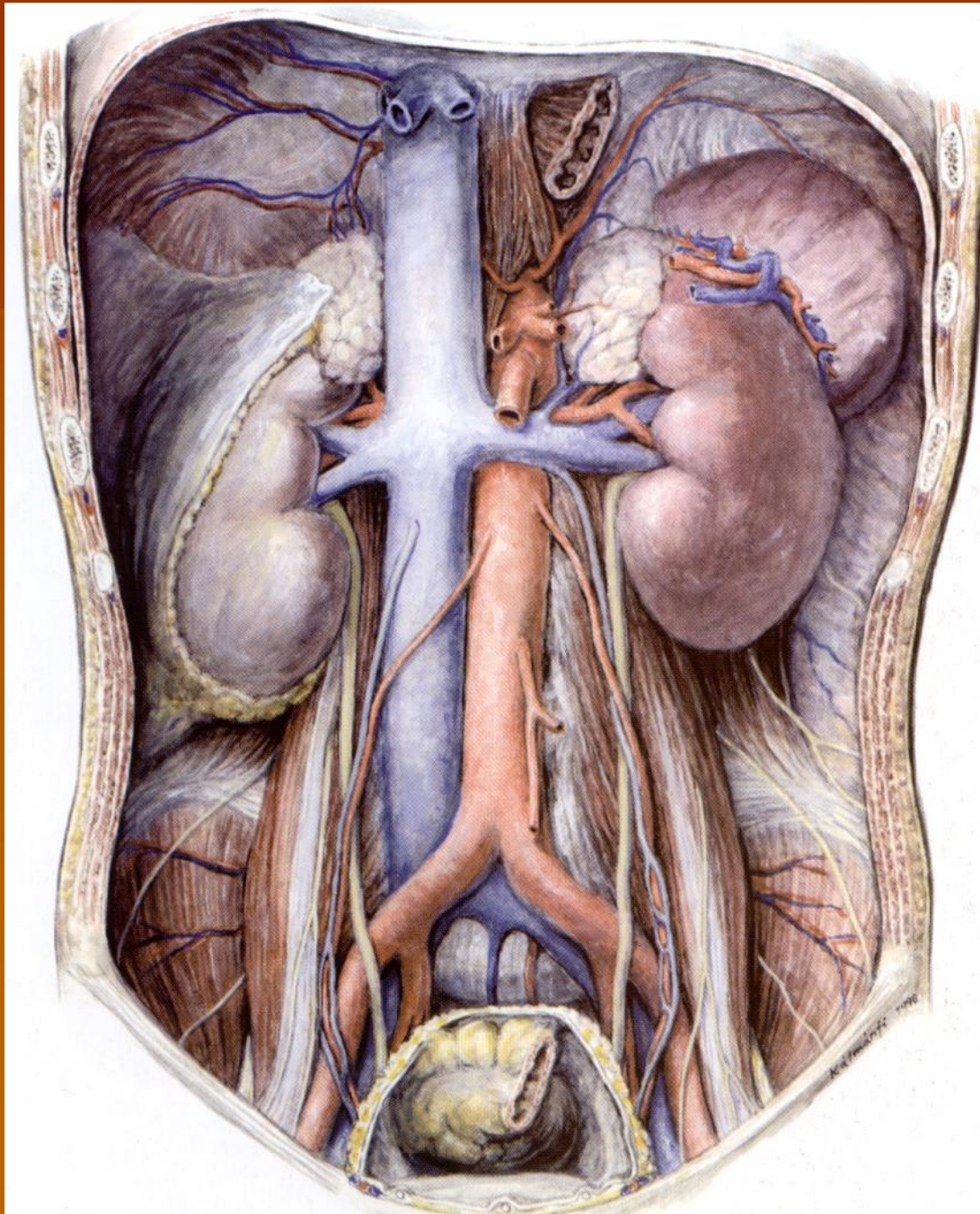
Prof. Dr. András Csillag

Semmelweis Universität, Institute für Anatomie, Histologie
und Embryologie

unter Mitarbeit von

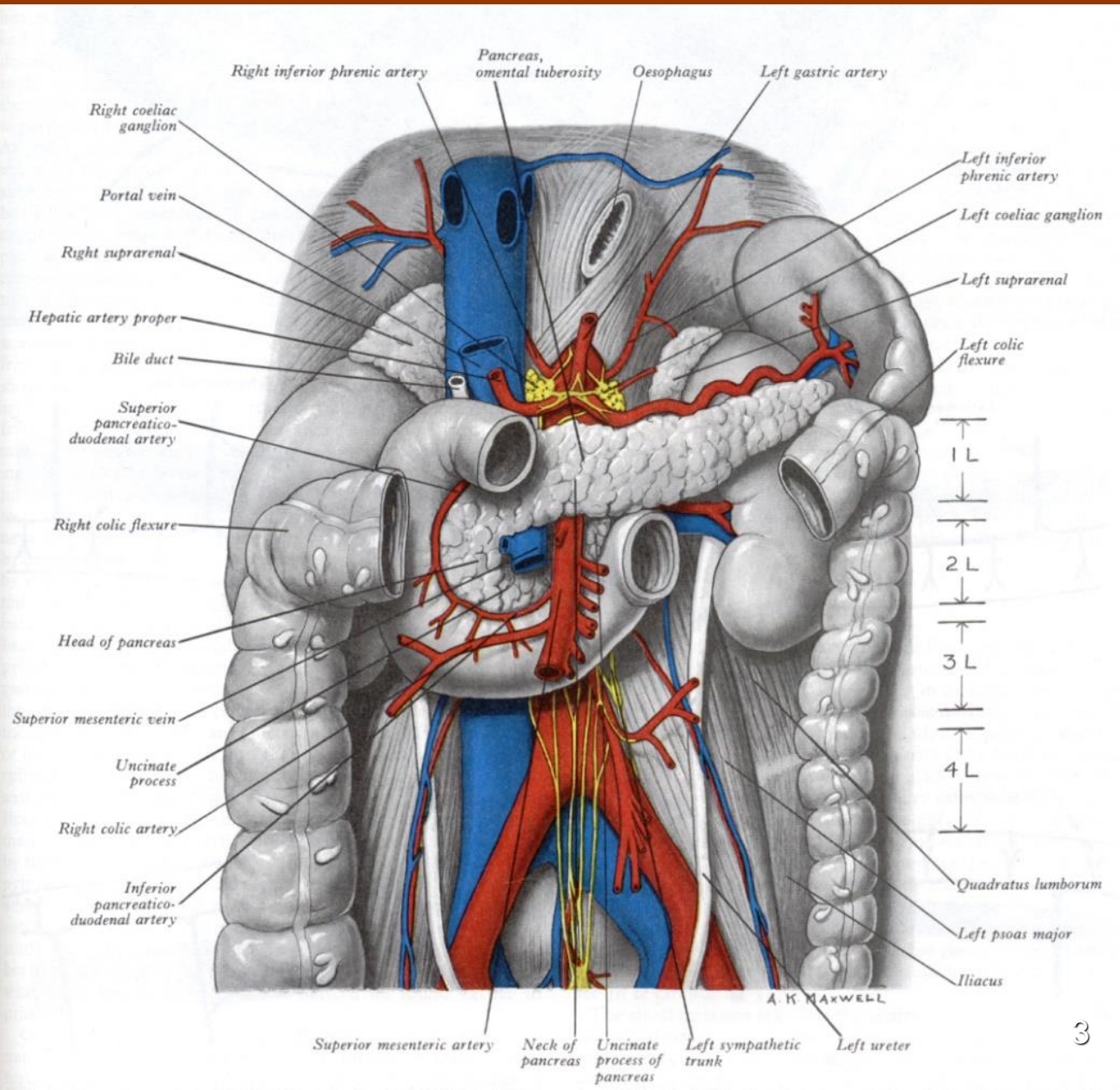
Prof. Dr. Erzsébet Fehér

und die Kollegen der Universitätsklinik für Radiologie and
Oncotherapie



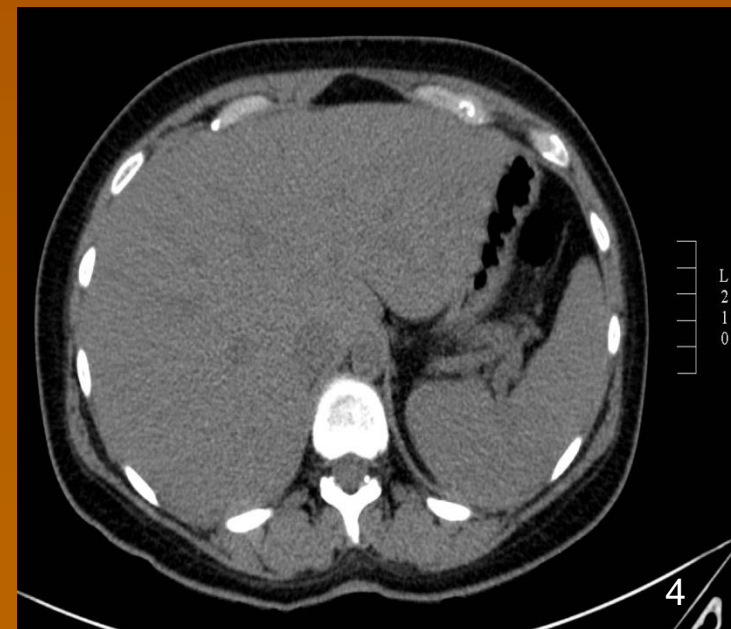
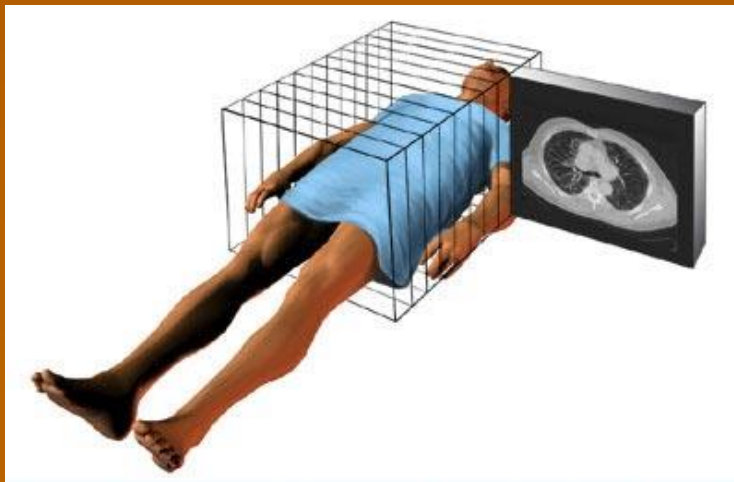
Wichtige retroperitoneale Organe:

- Glandula suprarenalis
- Aorta/IVC
- Duodenum (pars descendens, p. inferior, p. ascendens)
- Pancreas
- Ureter
- Colon ascendens und descendens
- Niere
- Oesophagus
- Rectum

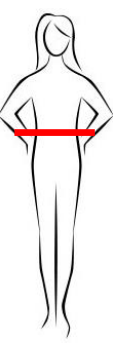
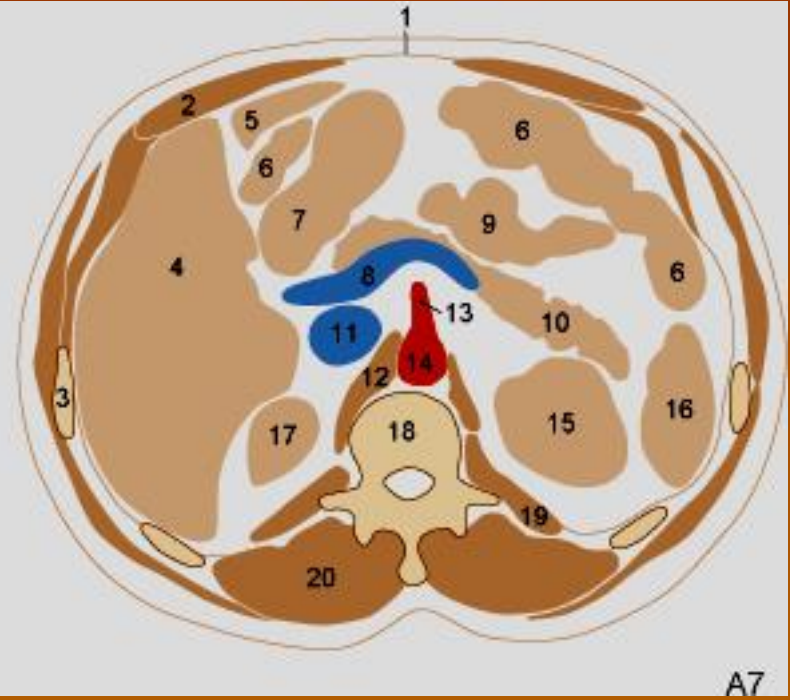


CT (computer tomography)

- CT axial (transverse) slices
- It shows the axial anatomy of the human body
- Sagittal, coronal and other reconstructions

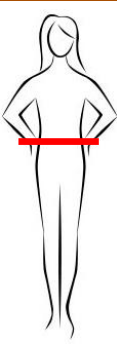
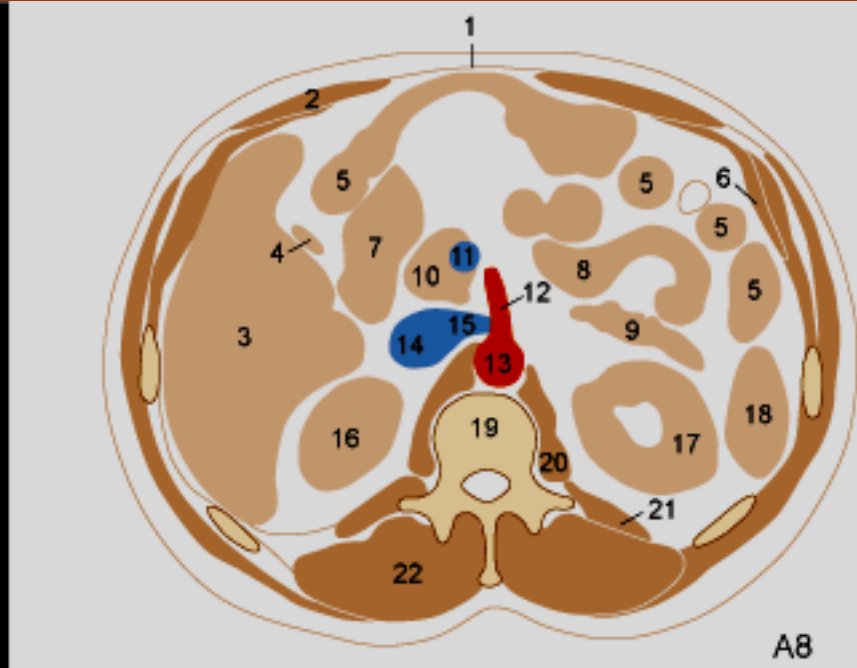
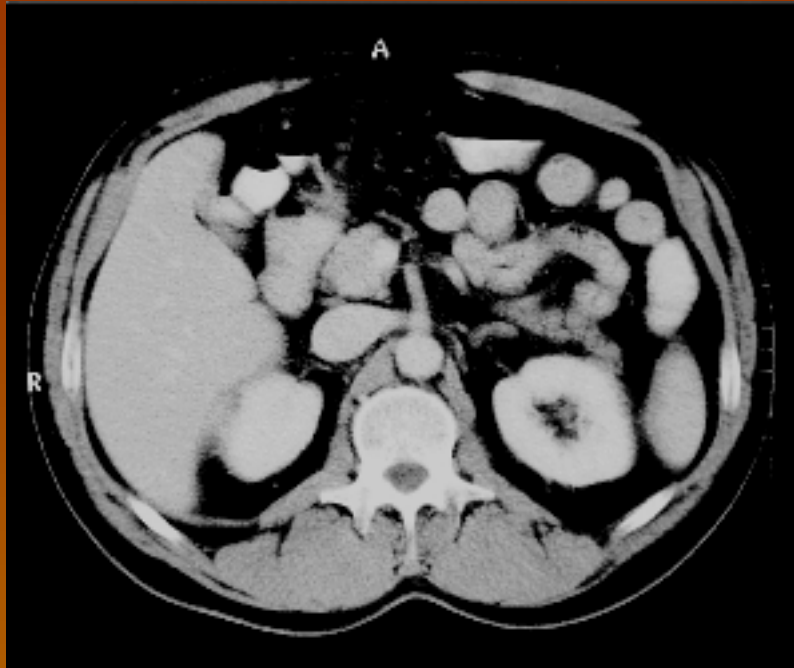


Abdomen, axiales CT



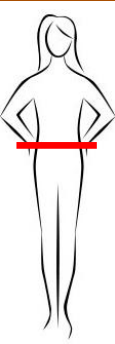
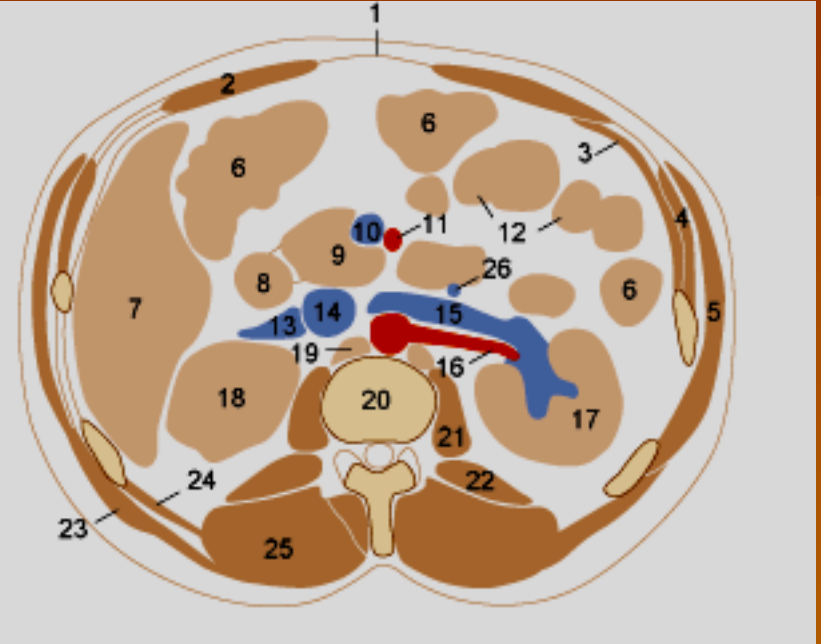
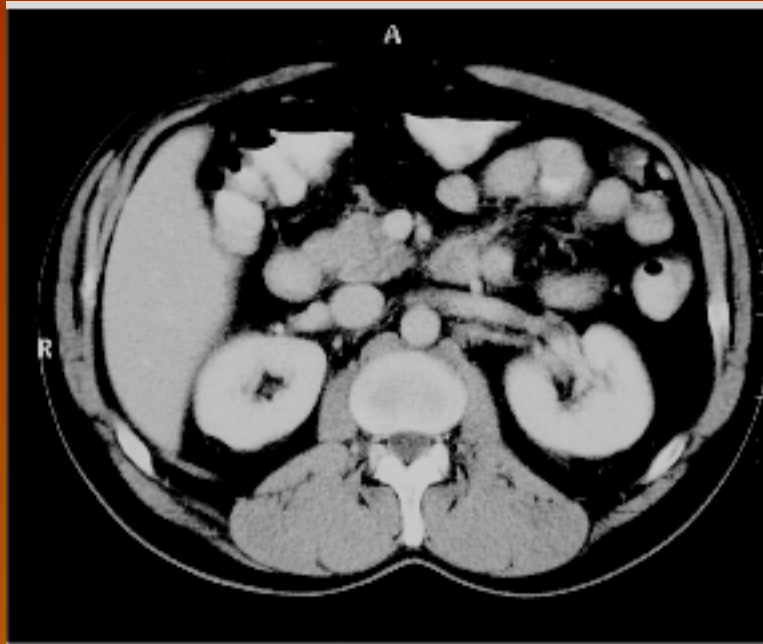
- | | | | |
|-----|--|-----|--------------------------|
| 1. | Linea alba | 11. | V. cava inf. |
| 2. | Rectus aponeurosis/M. rectus abdominis | 12. | Crus dext. diaphragmatis |
| 3. | Costa | 13. | Art. mesenterica sup. |
| 4. | Lobus dext. hepatis | 14. | Aorta |
| 5. | Lobus sin. hepatis | 15. | Ren sinister |
| 6. | Colon | 16. | Spleen |
| 7. | Duodenum, pars sup. | 17. | Ren dexter |
| 8. | V. lienalis | 18. | Vertebra lumb. I. |
| 9. | Jejunum | 19. | M. quadratus lumborum |
| 10. | Cauda pancreatis | 20. | M. erector spinae |

Abdomen, axiales CT



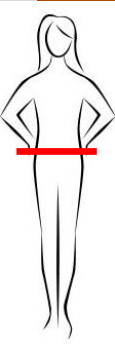
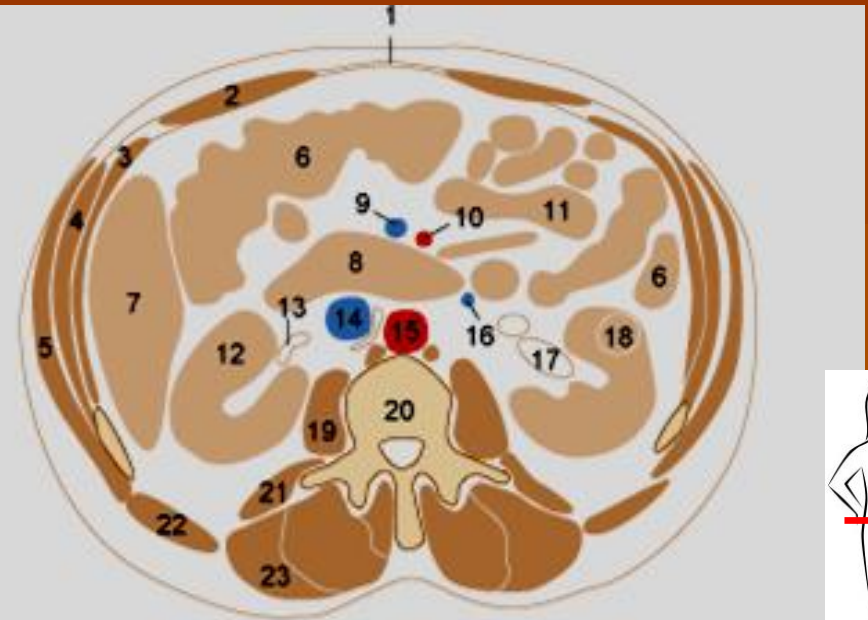
- | | | | |
|-----|--|-----|-----------------------|
| 1. | Linea alba | 12. | Art. mesenterica sup. |
| 2. | Rectus aponeurosis/M. rectus abdominis | 13. | Aorta |
| 3. | Leber | 14. | V. cava inf. |
| 4. | Vesica fellea | 15. | V. renalis sin. |
| 5. | Colon transversum | 16. | Rechte Niere |
| 6. | Bauchmuskulatur | 17. | Linke Niere |
| 7. | Duodenum, pars descendens | 18. | Milz |
| 8. | Jejunum | 19. | Vertebra lumb. I. |
| 9. | Cauda pancreatis | 20. | M. psoas major |
| 10. | Caput pancreatis | 21. | M. quadratus lumborum |
| 11. | V. mesenterica sup. | 22. | M. erector spinae |

Abdomen, axiales CT



- | | | | |
|-----|---------------------------|-----|----------------------------------|
| 1. | Linea alba | 14. | Vena cava inf. |
| 2. | M. rectus abdominis | 15. | V. renalis sin. |
| 3. | M. transversus abdominis | 16. | Art. renalis sin. |
| 4. | M. obliquus internus abd. | 17. | Linke Niere |
| 5. | M. obliquus externus abd. | 18. | Rechte Niere |
| 6. | Colon | 19. | Crus diaphragmatis |
| 7. | Leber | 20. | Discus intervert. lumbalis I/II. |
| 8. | Duodenum | 21. | M. psoas major |
| 9. | Caput pancreatis | 22. | M. quadratus lumborum |
| 10. | V. mesenterica sup. | 23. | M. latissimus dorsi |
| 11. | Art. mesenterica sup. | 24. | M. serratus post. inf. |
| 12. | Jejunum | 25. | M. erector spinae |
| 13. | V. renalis dext. | 26. | V. mesenterica inf. |

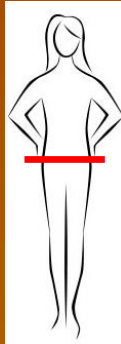
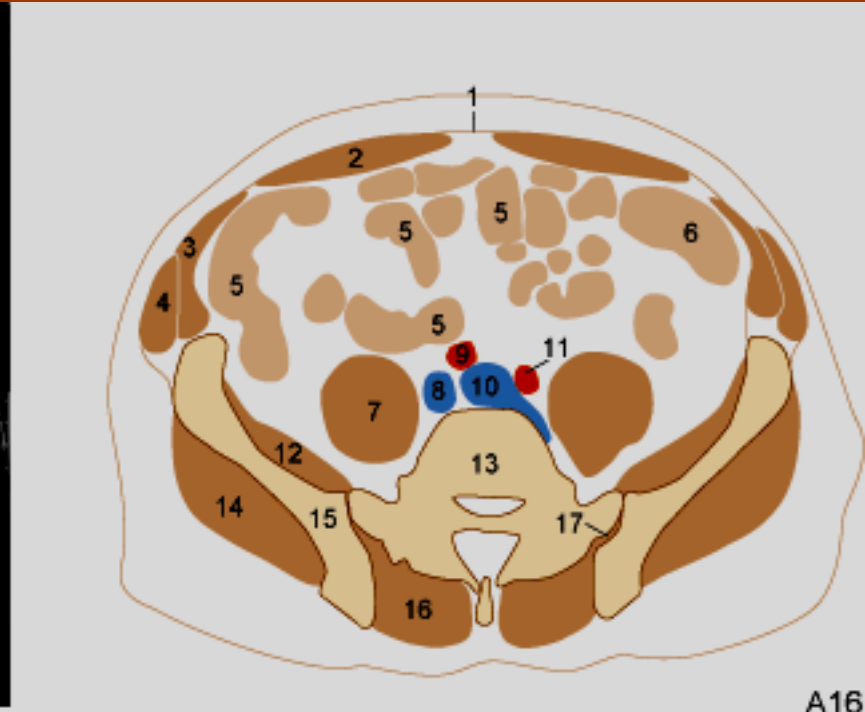
Abdomen, axiales CT



1. Linea alba
2. M. rectus abdominis
3. M. transversus abdominis
4. M. obliquus internus abd.
5. M. obliquus externus abd.
6. Colon
7. Leber
8. Duodenum, pars horizont.
9. V. mesenterica sup.
10. Art. mesenterica sup.
11. Jejunum
12. Rechte Niere

13. Ureter
14. V. cava inf.
15. Aorta
16. V. mesenterica inf.
17. Pelvis renalis
18. Nierenzyste
19. M. psoas major
20. Vertebra lumb. II.
21. M. quadratus lumborum
22. M. latissimus dorsi
23. M. erector spinae

Abdomen, axiales CT

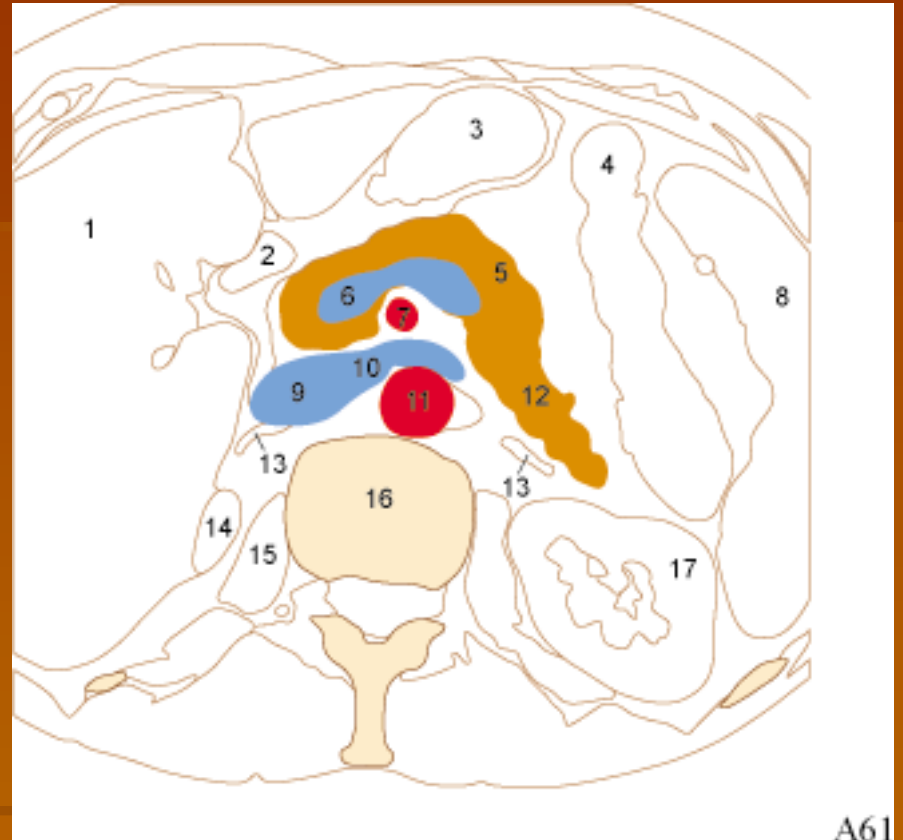
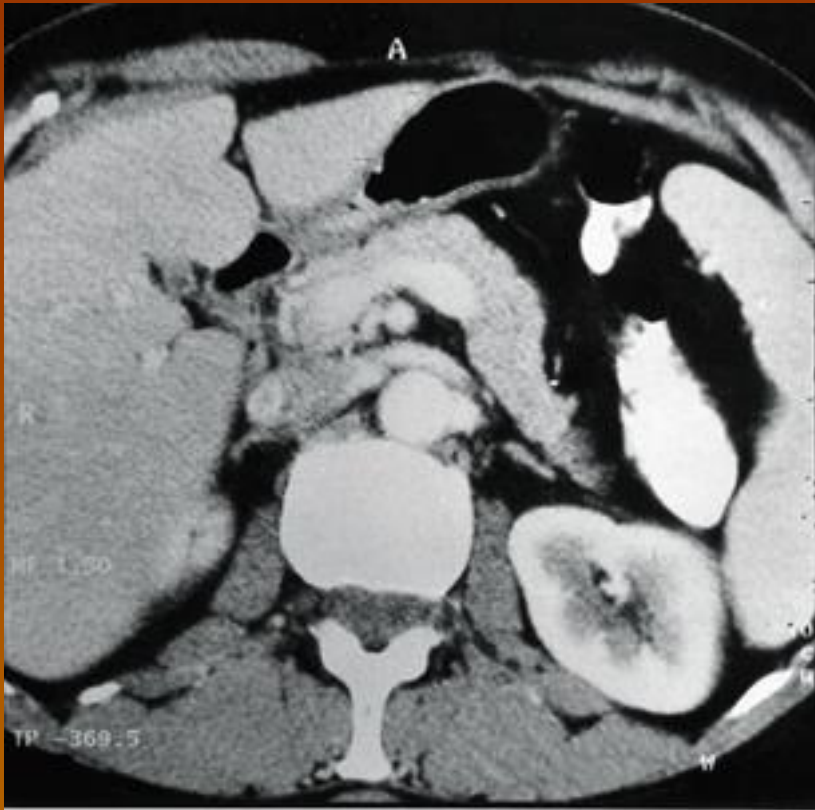


A16

1. Linea alba
2. M. rectus abdominis
3. M. transversus et obliquus int. abd.
4. M. obliquus ext. abd.
5. Ileum
6. Colon descendens
7. M. psoas major
8. V. iliaca commun. dext.

9. Art. iliaca commun. dext.
10. V. iliaca commun. sin.
11. Art. iliaca commun. sin.
12. M. iliacus
13. Lumbosakraler Übergang
14. M. gluteus medius
15. Os ilii (ilium)
16. M. erector spinae
17. Articulatio sacroiliaca

Pancreas, axiales CT



1. Hepar
2. Pars pylorica ventriculi
3. Corpus ventriculi
4. Flexura coli sin .(lienalis)
5. Corpus pancreatis
6. V. lienalis
7. Art. mesenterica sup.
8. Lien
9. V. cava inf.

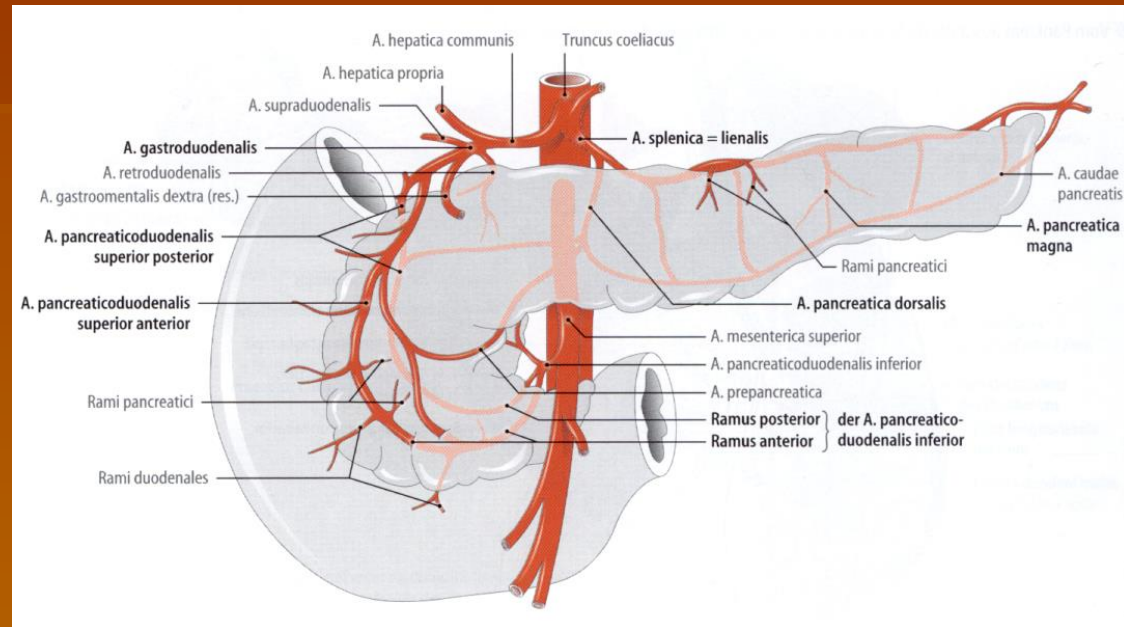
10. V. renalis sin.
11. Aorta
12. Cauda pancreatis
13. Gl. suprarenalis
14. Ren dexter
15. M. psoas major
16. Vertebra
17. Ren sinister

Syntopie des Pancreas

■ Lage

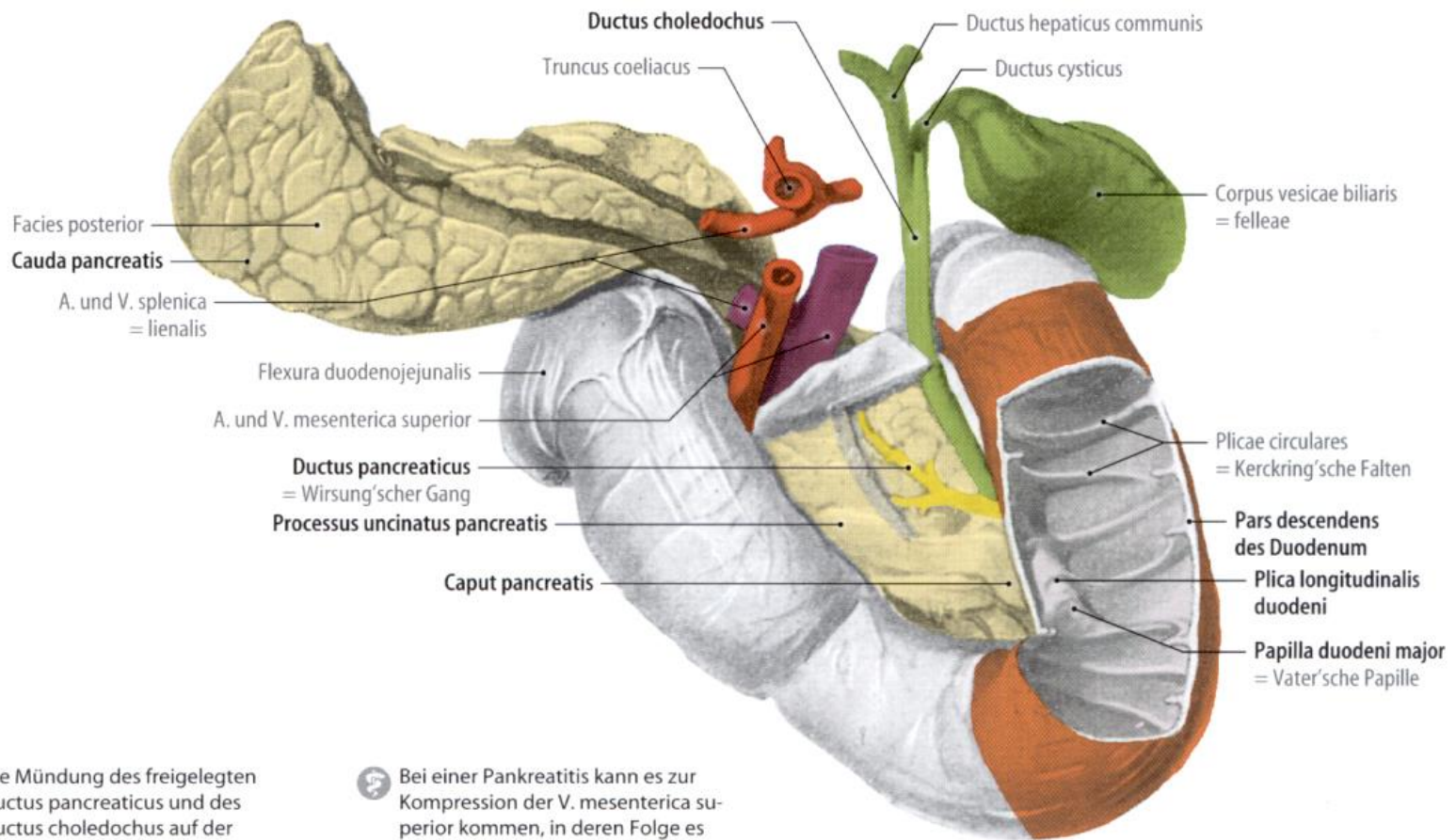
- Erstreckt sich vom Duodenum zur Milz (hinter der Bursa omentalis),
- Facies ventralis
 - Flexura duodeno-jejunalis (Treitz),
 - Dünndarm,
 - Hinterseite des Magens (über die Bursa omentalis),
 - Mesocolon transversum
 - Flexura coli sinistra
 - A. gastroduodenalis
- Facies dorsalis
 - Aorta
 - Linke Niere
 - Linke Nebenniere
 - Ductus choledochus und Ductus pancreaticus
 - A. + V. mesenterical sup.

Pancreas – Blutversorgung



- Truncus coeliacus
 - ▣ A. splenica
 - ▣ A. hepatica commun.
 - A. gastroduodenalis
 - A. pancreatico-duodenalis sup.
- A. mesenterica sup.
 - A. pancreatico-duodenalis inf.

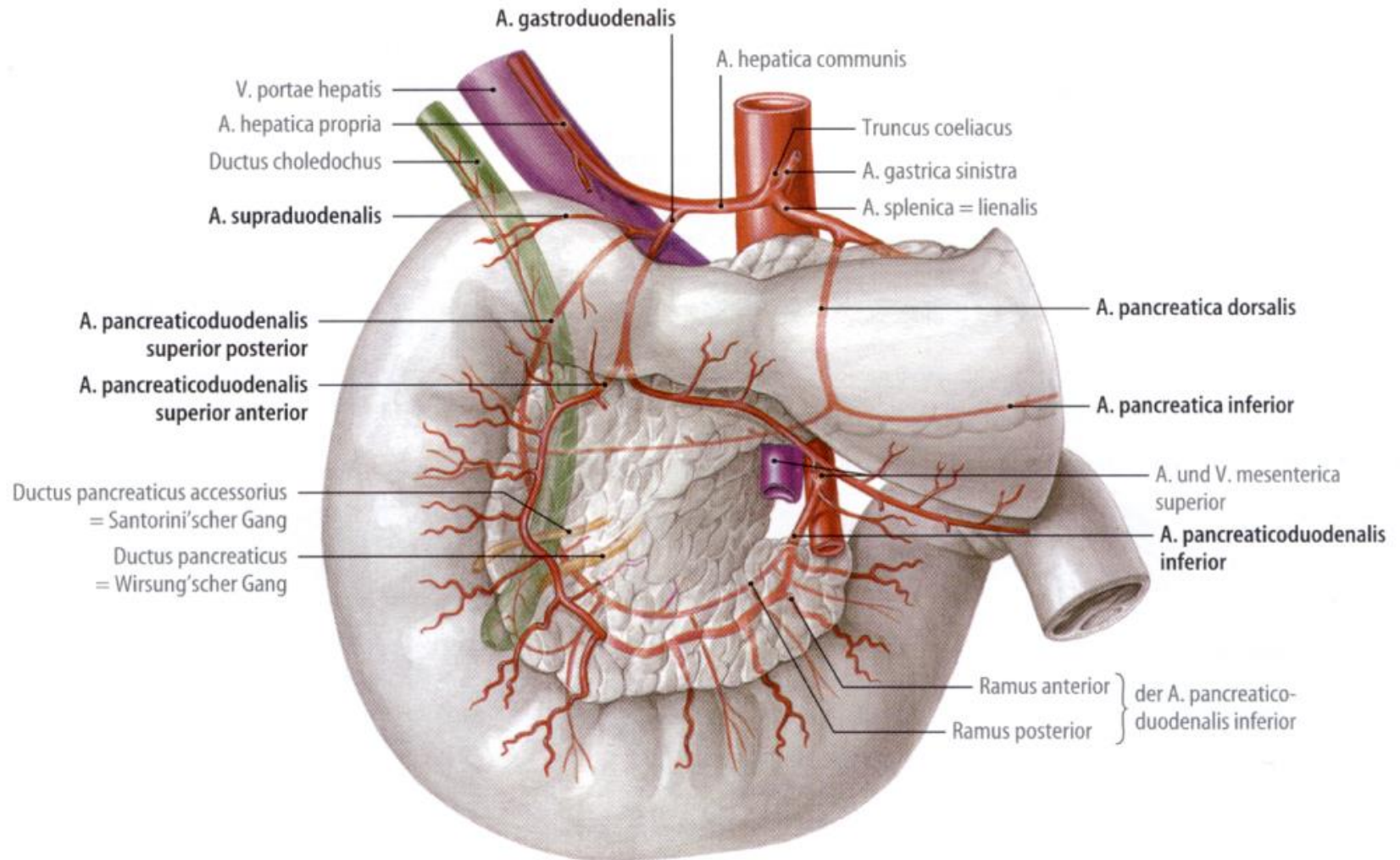
Area retropancreatica dorsale Ansicht



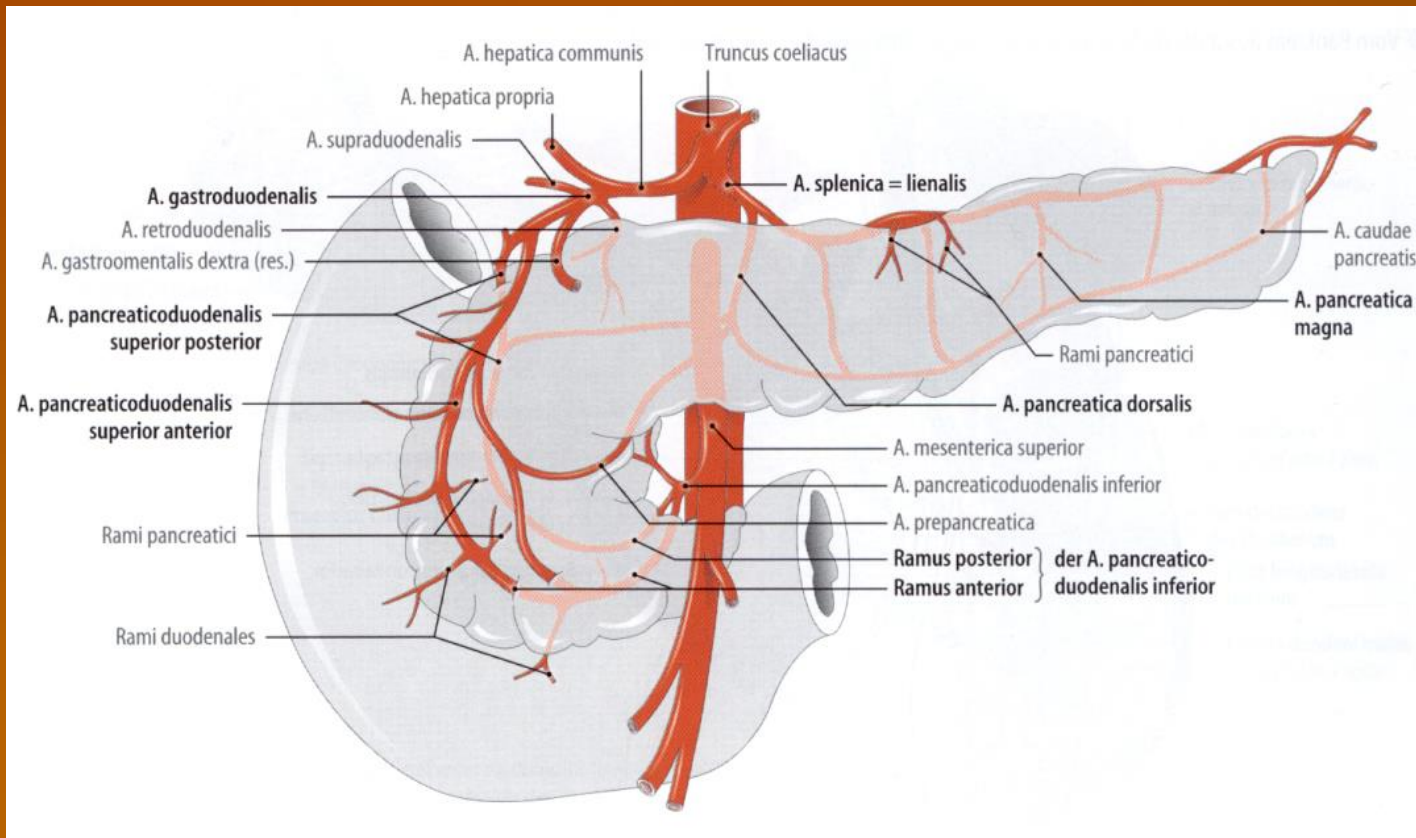
Die Mündung des freigelegten Ductus pancreaticus und des Ductus choledochus auf der Plica longitudinalis wurde durch Fensterung des Duodenum sichtbar gemacht.

Bei einer Pankreatitis kann es zur Kompression der V. mesenterica superior kommen, in deren Folge es zur Ödembildung und zu Thrombosen im Bereich des Einzugsgebietes kommt (Abb. 5.138).

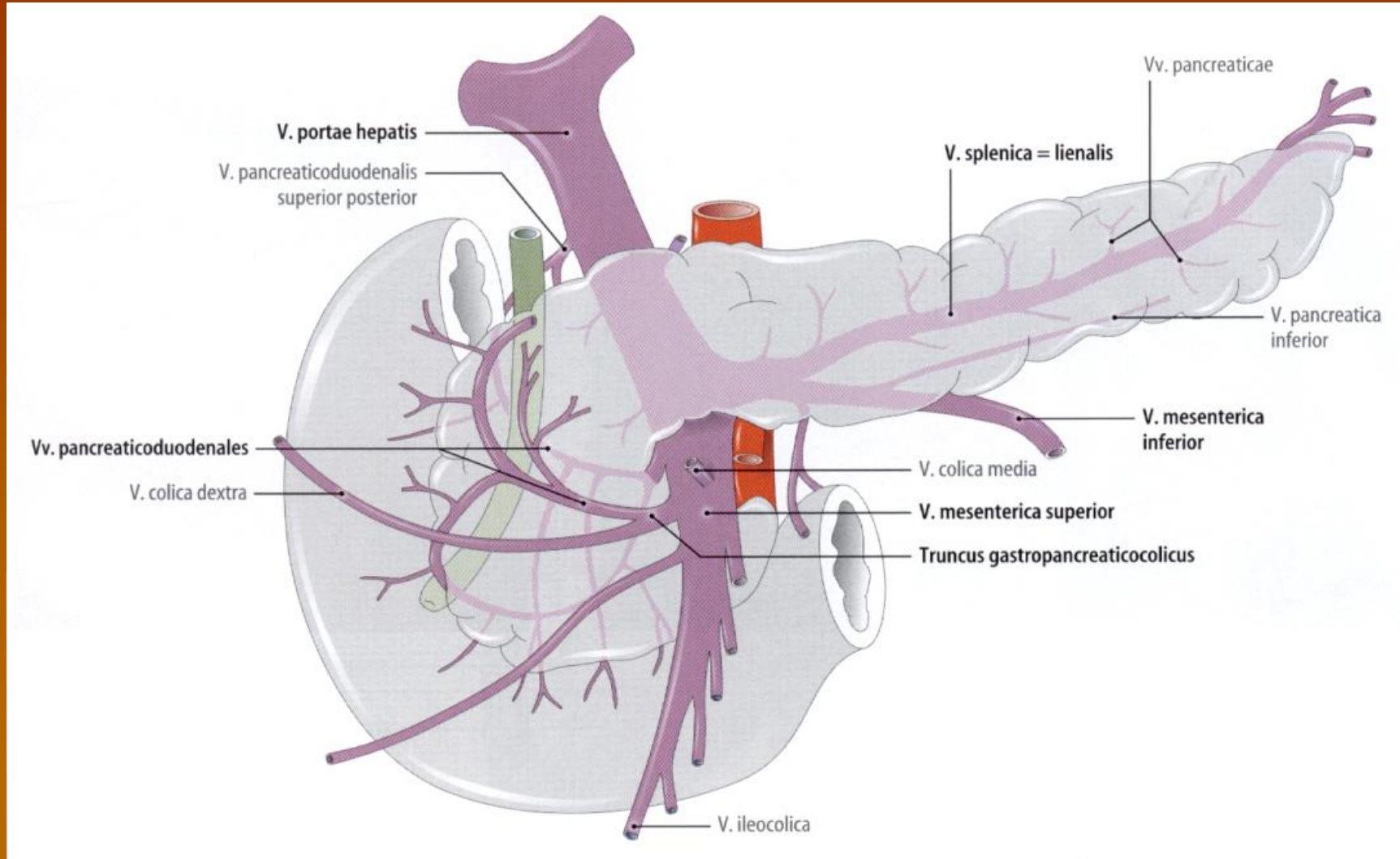
Periduodenale arterielle Anastomosen



Blutversorgung des Pankreas u. Duodenum



Venöser Abfluss des Pankreas



Lymphbahnen des Pankreas

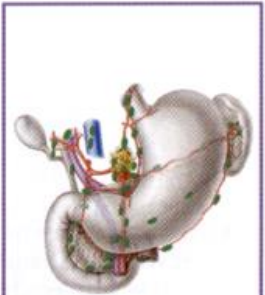
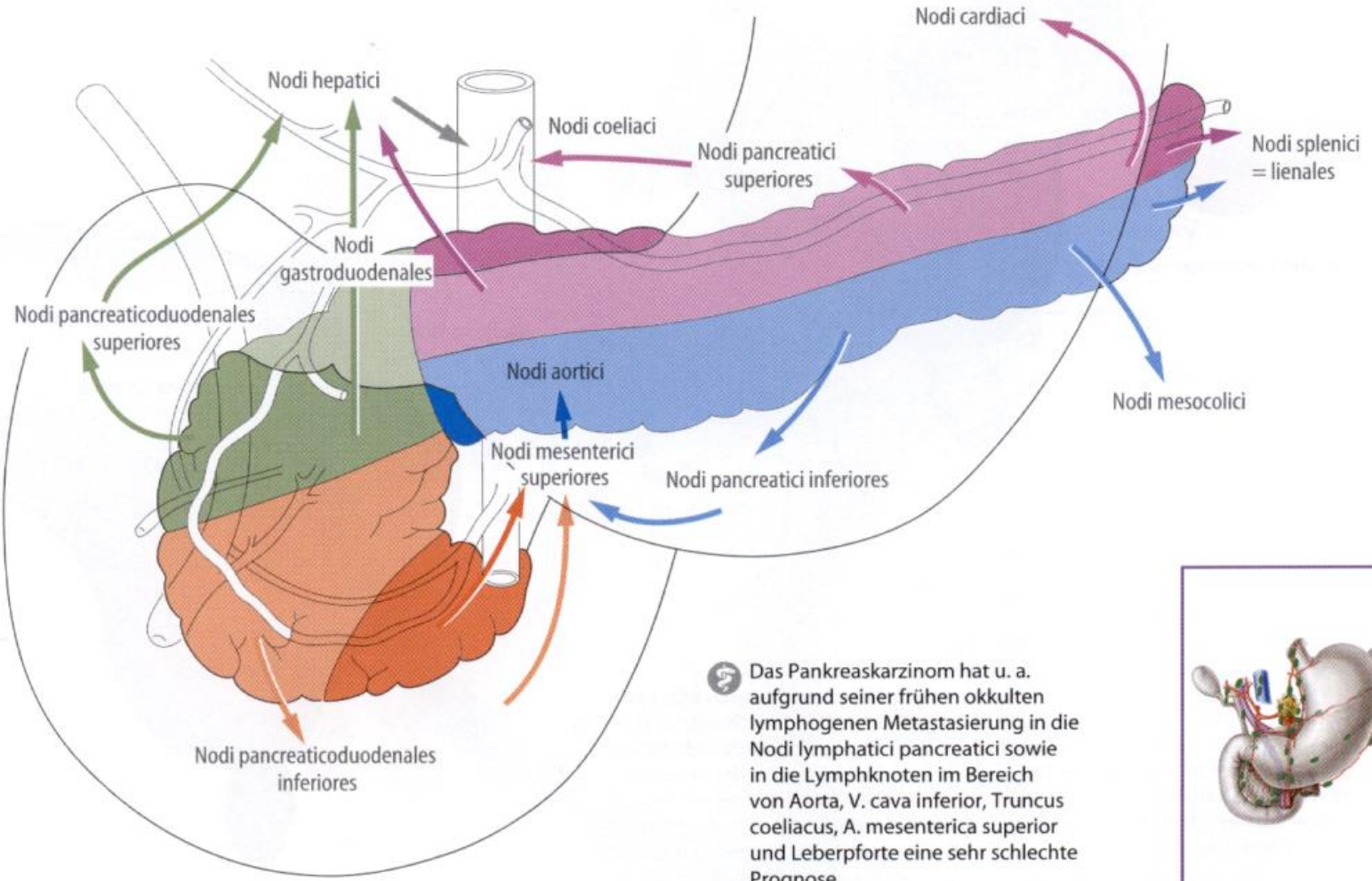


Abb. 5.112

Pankreaskarzinom

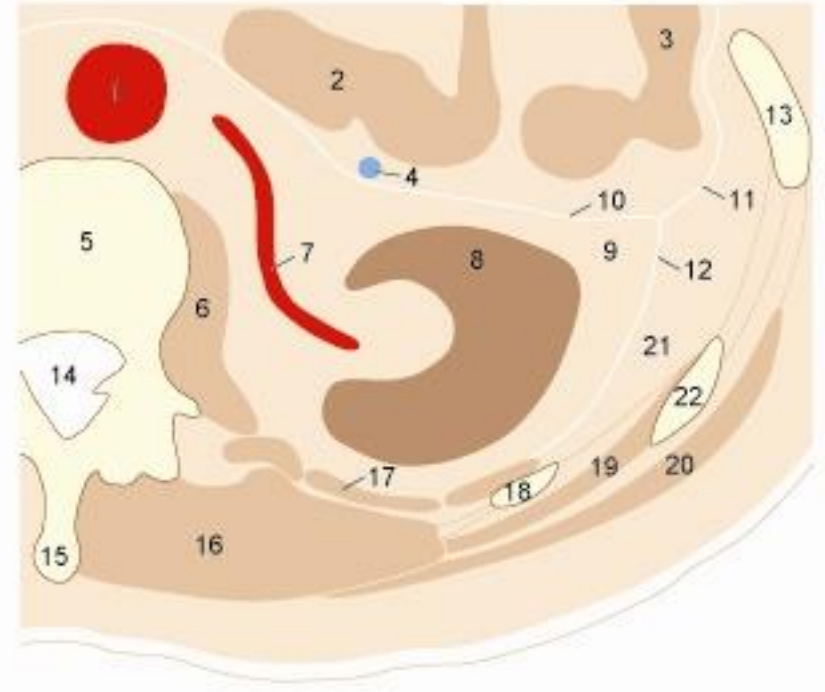
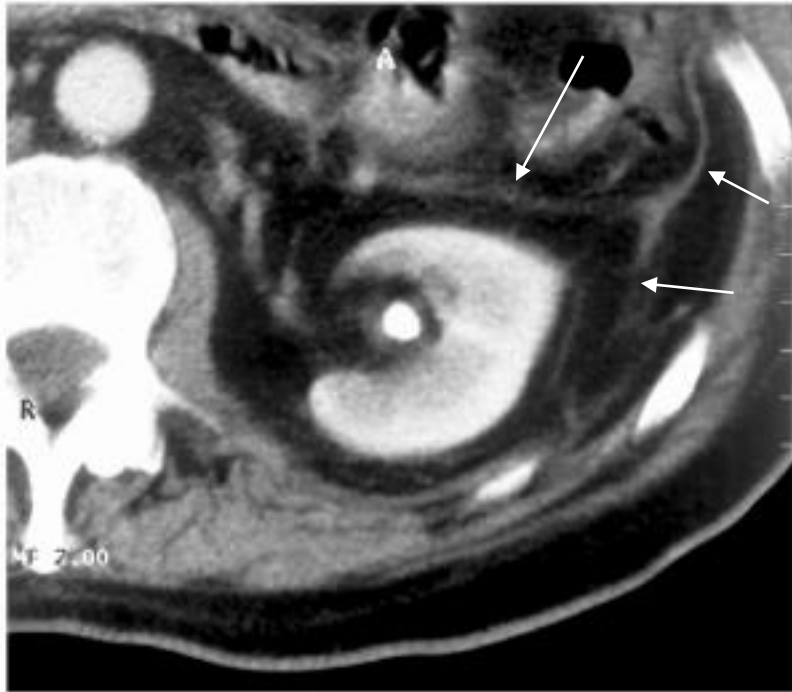
Sonographie



CT



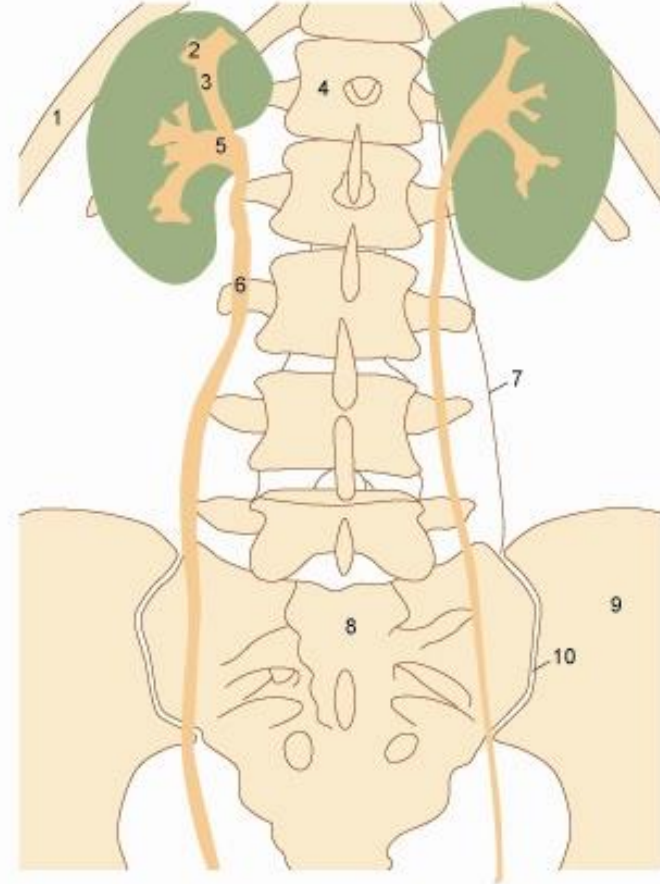
Nierenkapseln, axiales CT



1. Aorta
2. Jejunum
3. Colon descendens
4. V. mesenterica inf.
5. Vertebra lumb. II.
6. M. psoas major
7. Art. renalis
8. Ren
9. Capsula adiposa (ventral perirenal fat)
10. Lamina ant. fasciae renalis (Gerota-Faszie)
11. Fascia lateroconalis
12. Lamina post. fasciae renalis (Zuckerkandl-Faszie)

13. Costa X.
14. Canalis vertebralis
15. Processus spinosus
16. M. erector spinae
17. M. quadratus lumborum
18. Costa XII.
19. M. serratus post. inf.
20. M. latissimus dorsi
21. Dorsal pararenal fat
22. Costa XI.

Pelvis renalis und Ureter, Urographie



A41

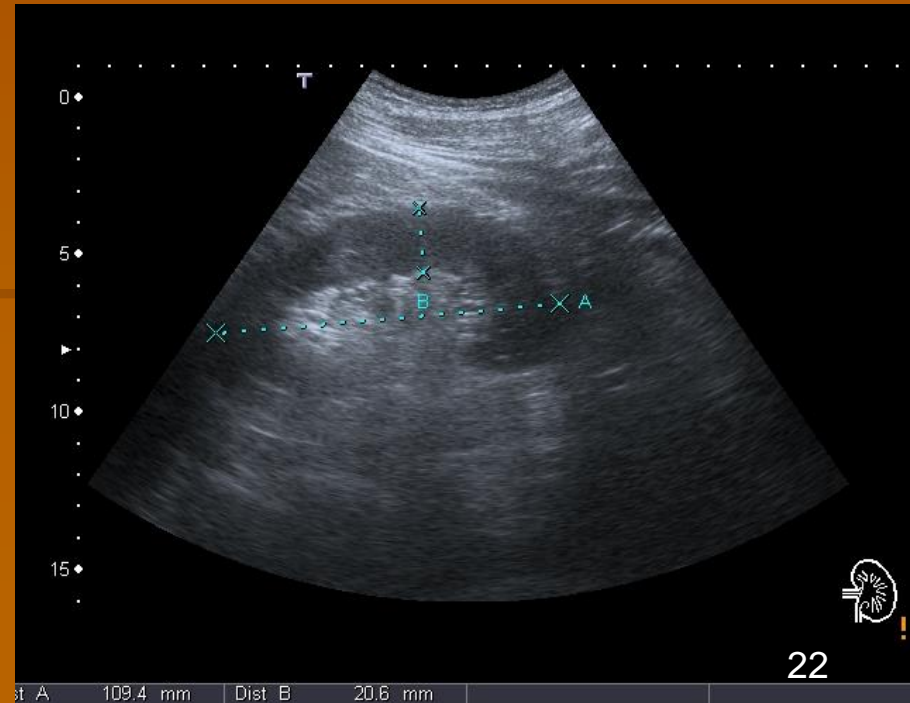
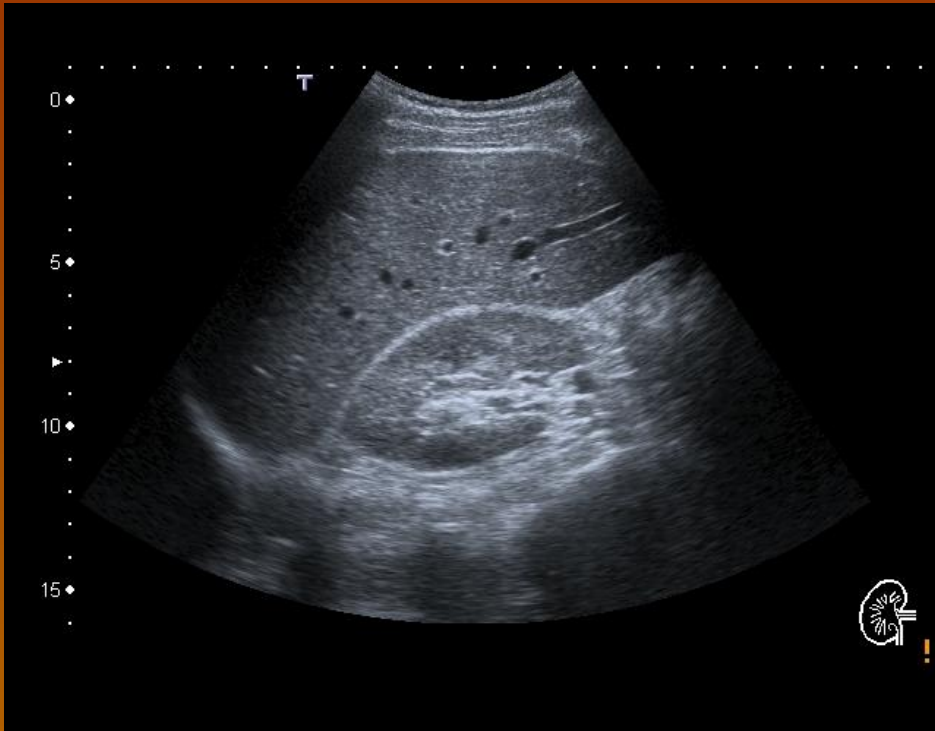
- | | |
|------------------------|-----------------------------|
| 1. Costa XI | 6. Ureter |
| 2. Calyx minor | 7. M. psoas major |
| 3. Calyx major | 8. Sacrum |
| 4. Columna vertebralis | 9. Os ilium |
| 5. Pelvis renalis | 10. Articulatio sacroiliaca |

Urographie

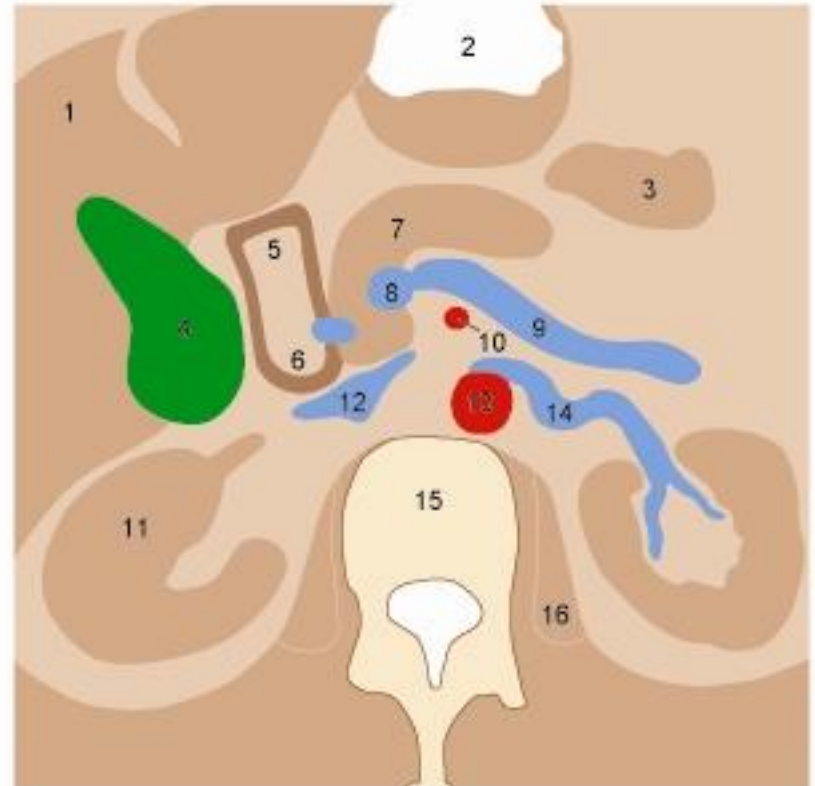


Nierenstein (rechte Seite, Pfeil)
und konsekutive
Hydronephrose

Ultraschallbild der Niere



Nieren, axiales CT

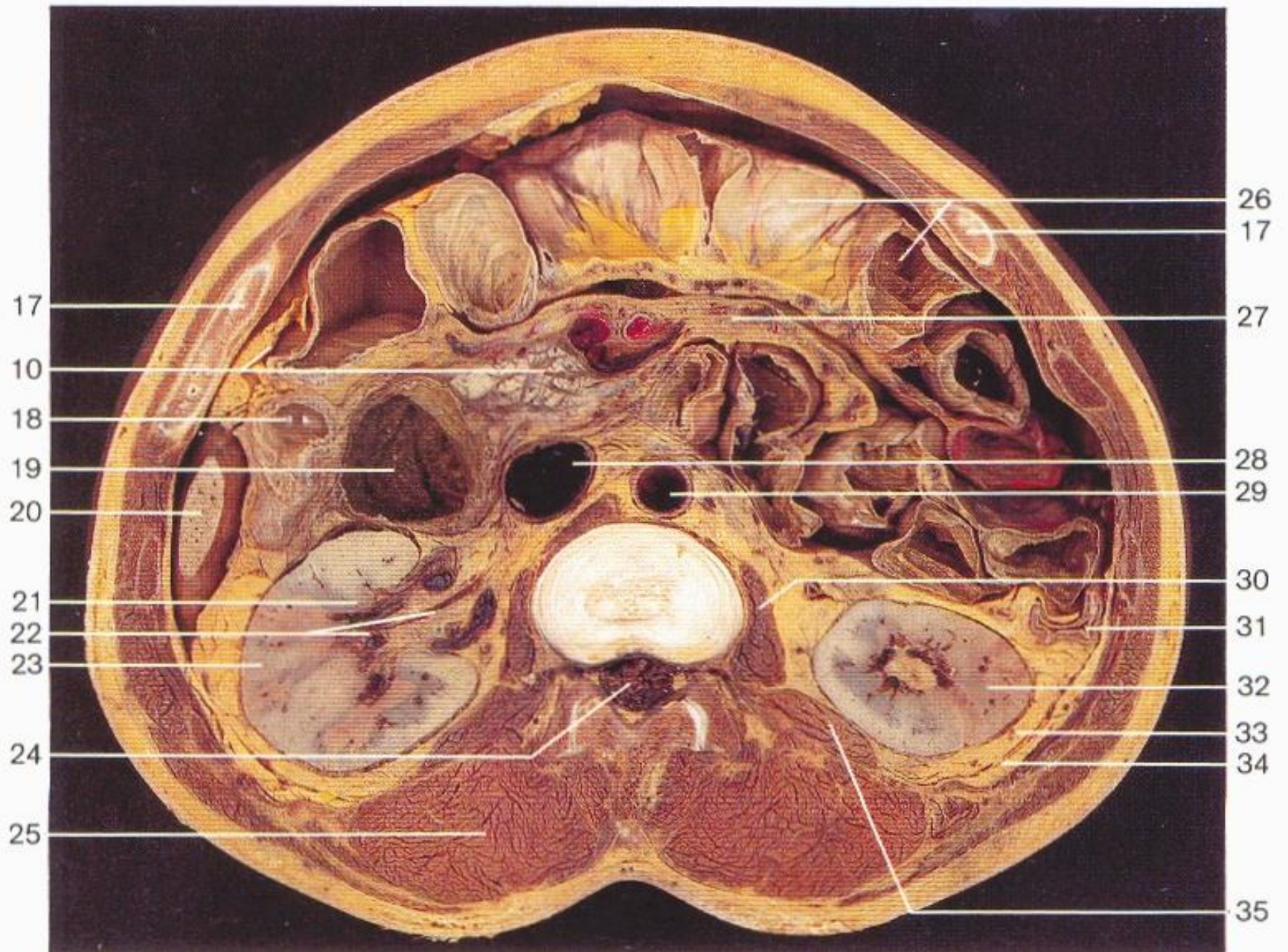


A23

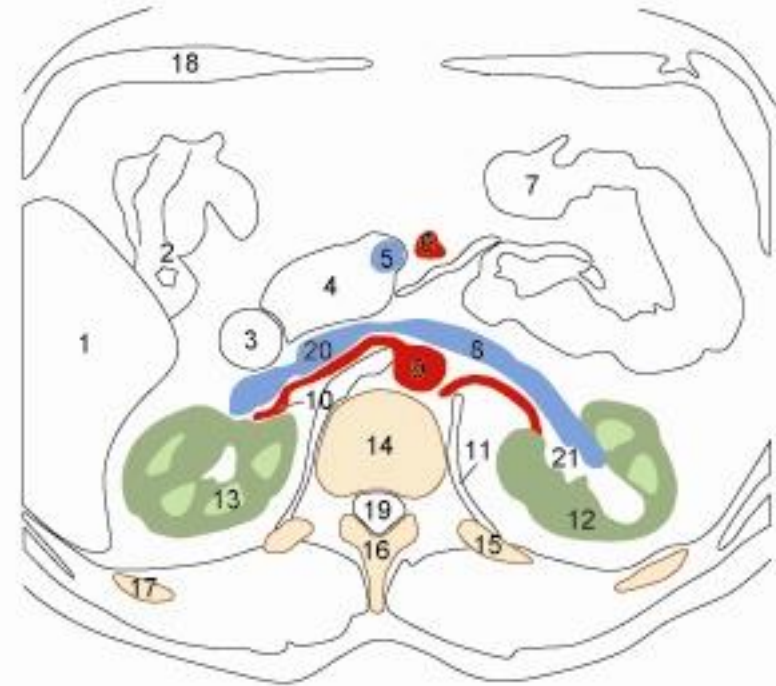
1. Liver
2. Stomach
3. Jejunum
4. Vesica fellea
5. Duodenum, pars sup.
6. Duodenum, pars descendens
7. Pancreas
8. V. mesenterica sup.

9. V. lienalis
10. Art. mesenterica sup.
11. Ren
12. V. cava inf.
13. Aorta
14. V. renalis
15. Discus intervertebralis LI/LII
16. M. psoas major

23



Gefäße der Niere, axiales CT

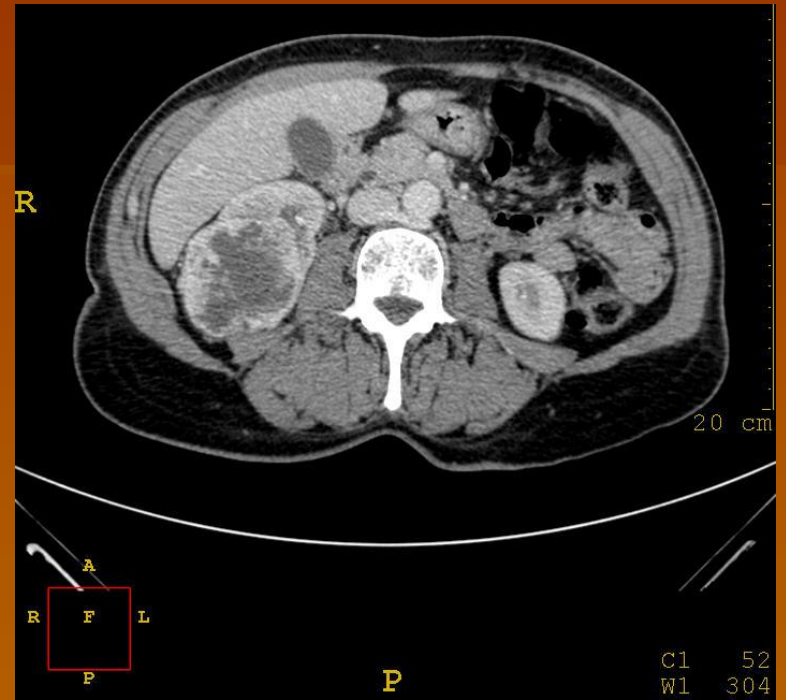
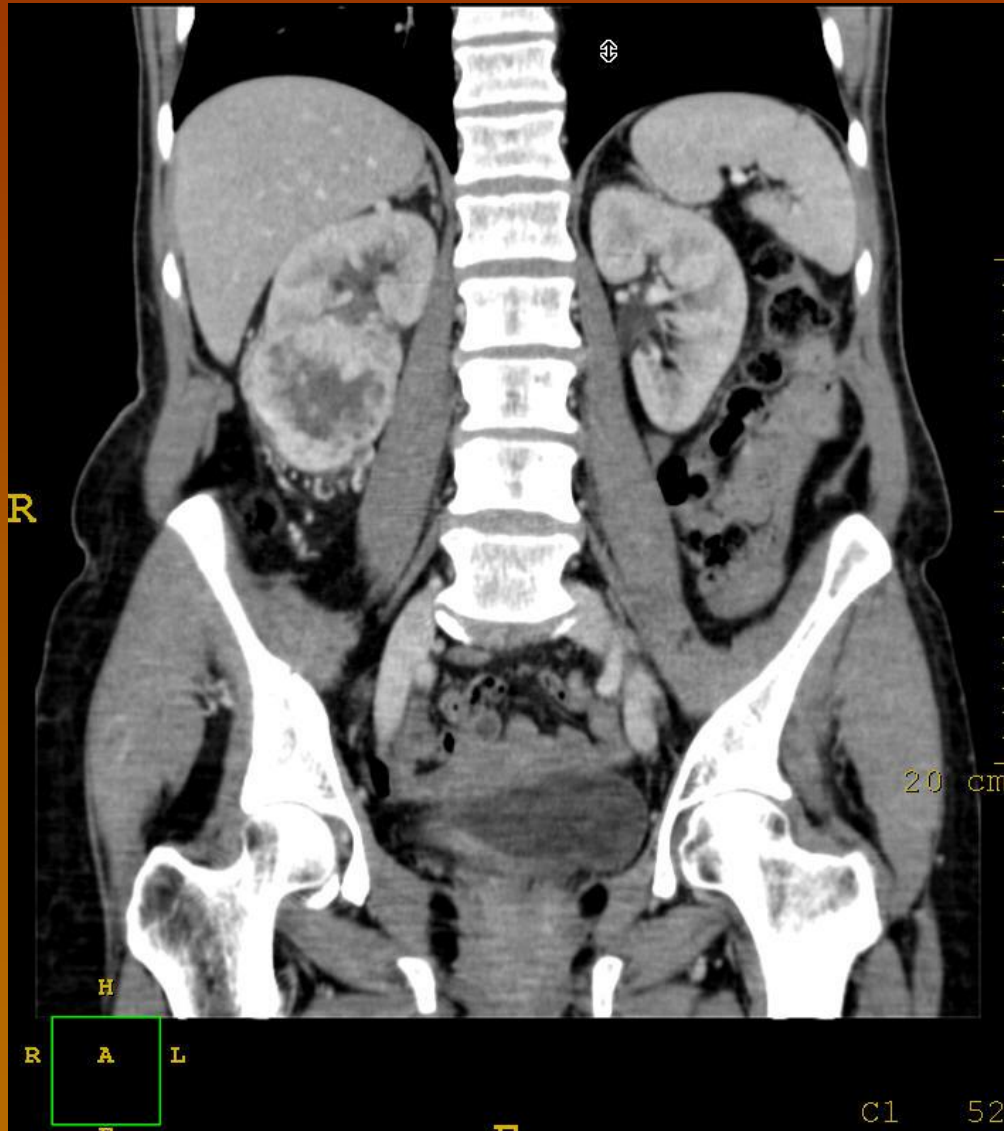


A43

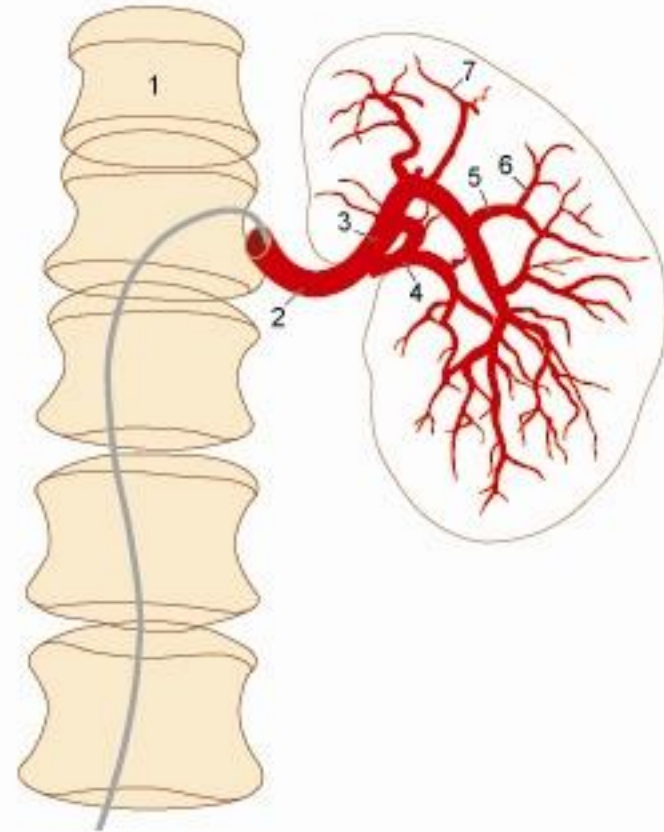
1. Liver
2. Colon ascendens
3. Duodenum, pars descendens
4. Pancreas, proc. uncinatus
5. V. mesent. sup.
6. Art. mesent. sup.
7. Small bowel
8. V. renalis
9. Aorta
10. Art. renalis

11. Diaphragma, pars lumbalis
12. Cortex renis
13. Medulla renis
14. Corpus vertebrae lumb. I
15. Costa XII
16. Proc. spinosus
17. Costa XI
18. Arcus costalis
19. Canalis vertebralis
20. V. cava inf.
21. Sinus renalis

Nierenkarzinom- CT



A. renalis, angiographie



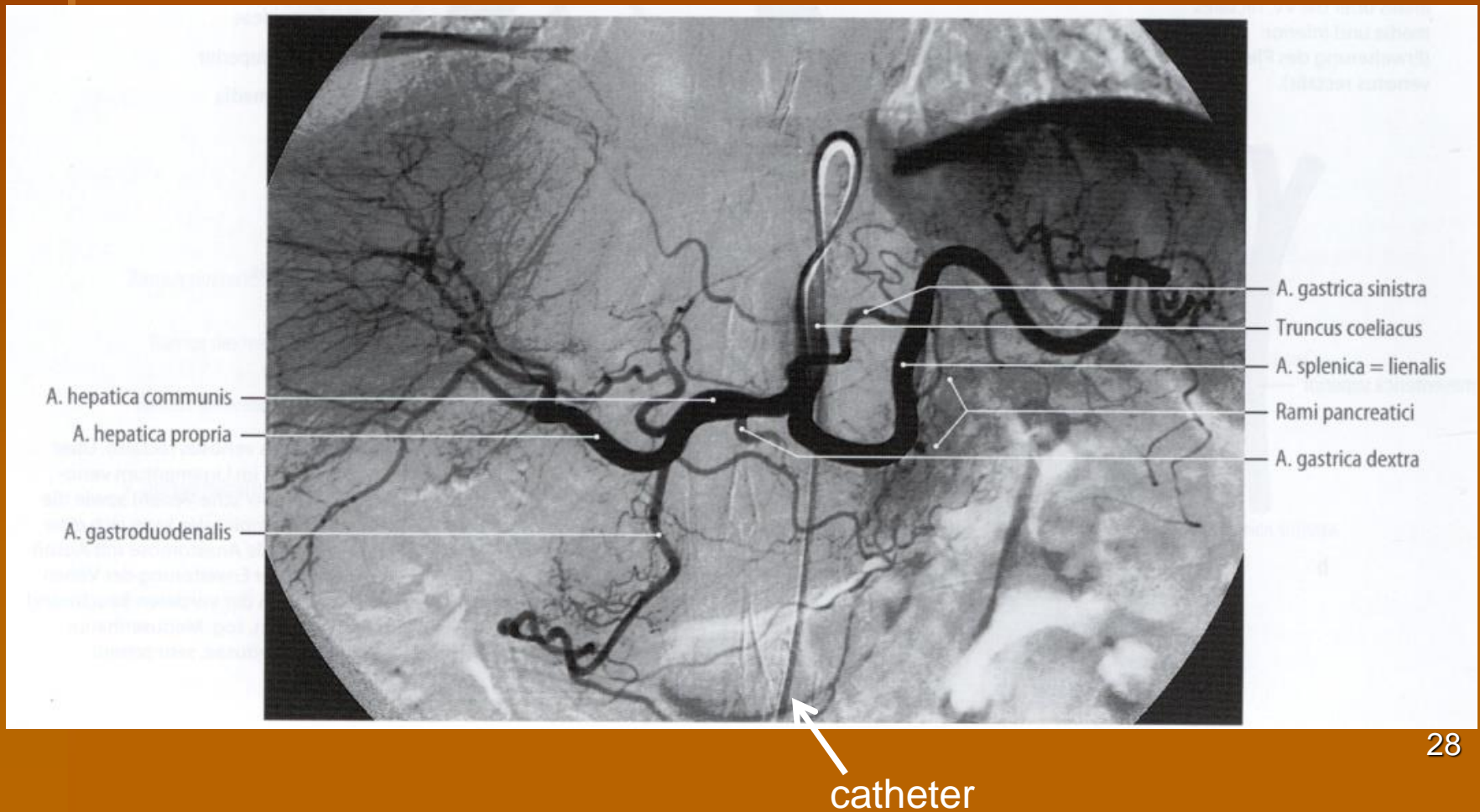
1. Columna vertebralis
2. Art. renalis trunk
3. Art. renalis, posterior division
4. Art. renalis, anterior division

5. Art. lobaris
6. Art. interlobaris
7. Art. arcuata

A70

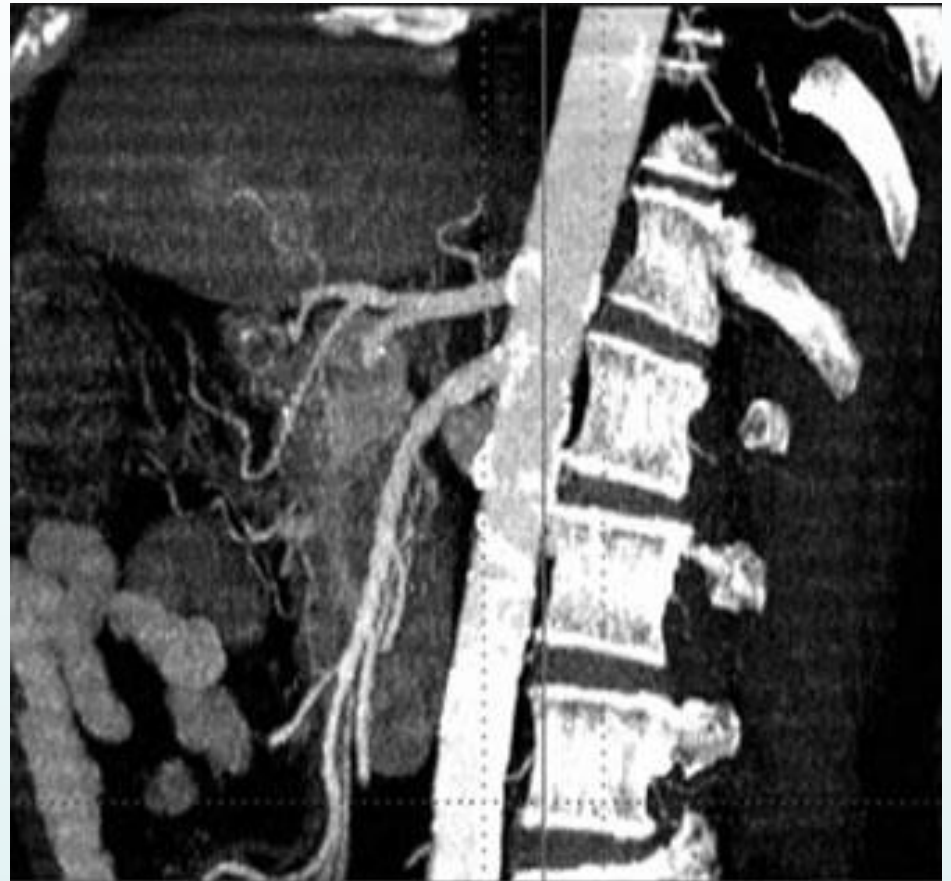
Truncus coeliacus

Angiographie





Aorta abdominalis

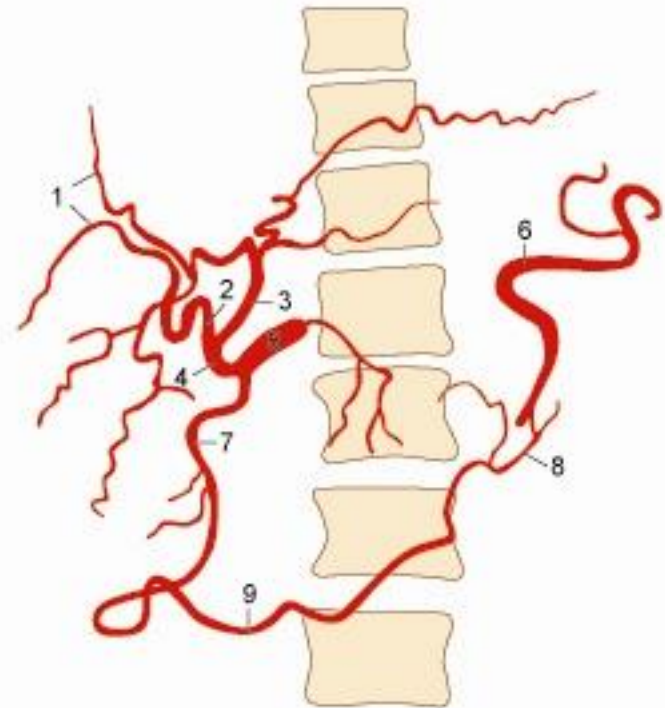


Aorta abdominalis

Truncus coeliacus

Arteria mesenterica superior

Truncus coeliacus, Angiographie

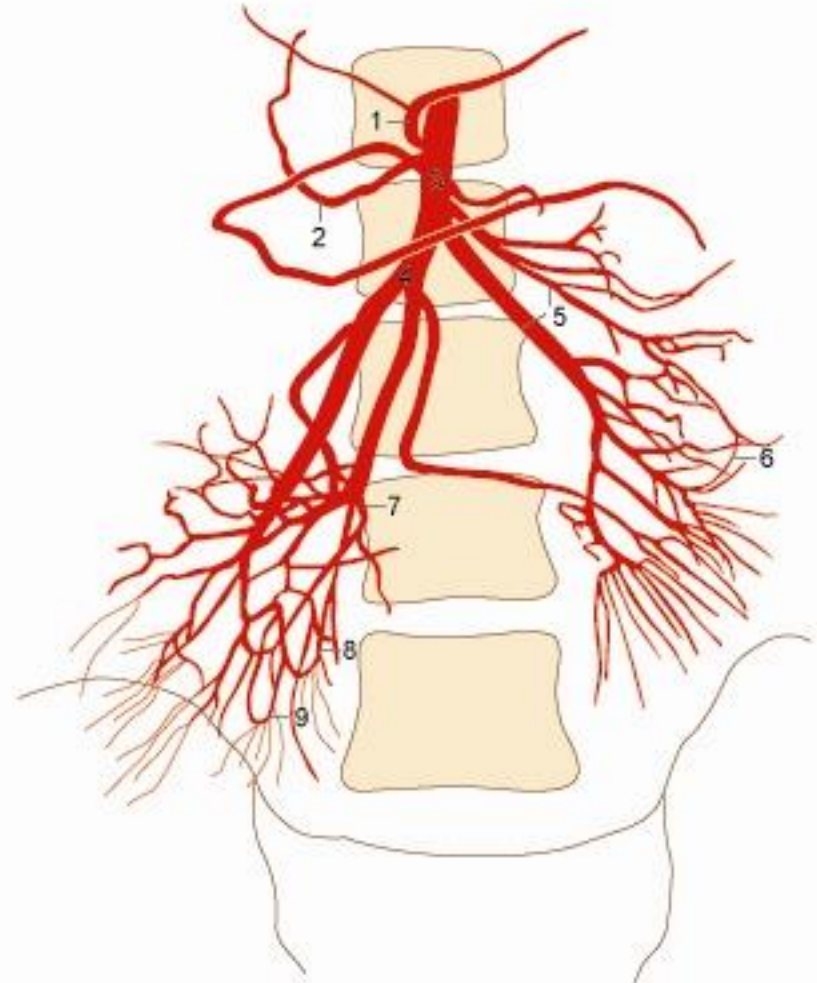


A 52

1. Rami intrahepatici
2. Art. hepatica dext.
3. Art. hepatica sin.
4. Art. hepatica propria
5. Art. hepatica communis

6. Art. lienalis
7. Art. gastroduodenalis
8. Art. gastroepiploica sin.
9. Art. gastroepiploica dext.

Arteria mesenterica superior, Angiographie

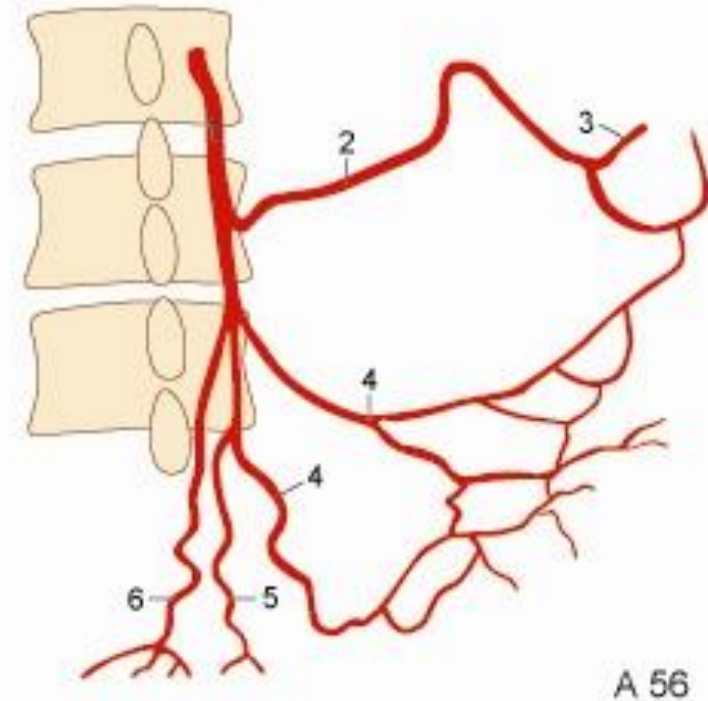
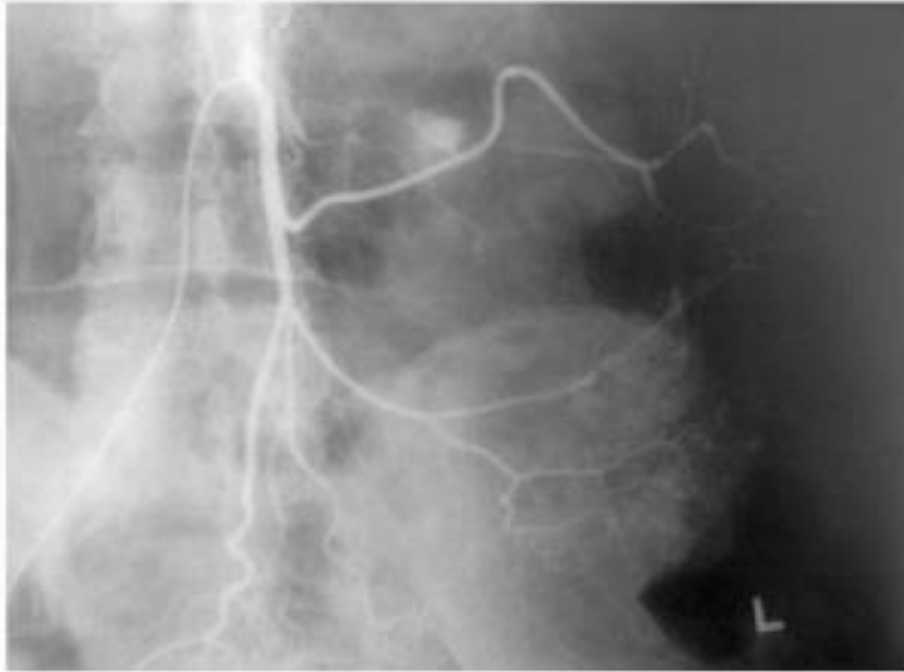


1. Art. colica med.
2. Art. pancreaticoduodenalis inf.
3. Art. mesenterica sup.
4. Aa. ileales
5. Aa. jejunales

6. Aa. jejunales arcades
7. First arcade of a. ilealis
8. Second arcade of a. ilealis
9. Third arcade of a. ilealis

A 55

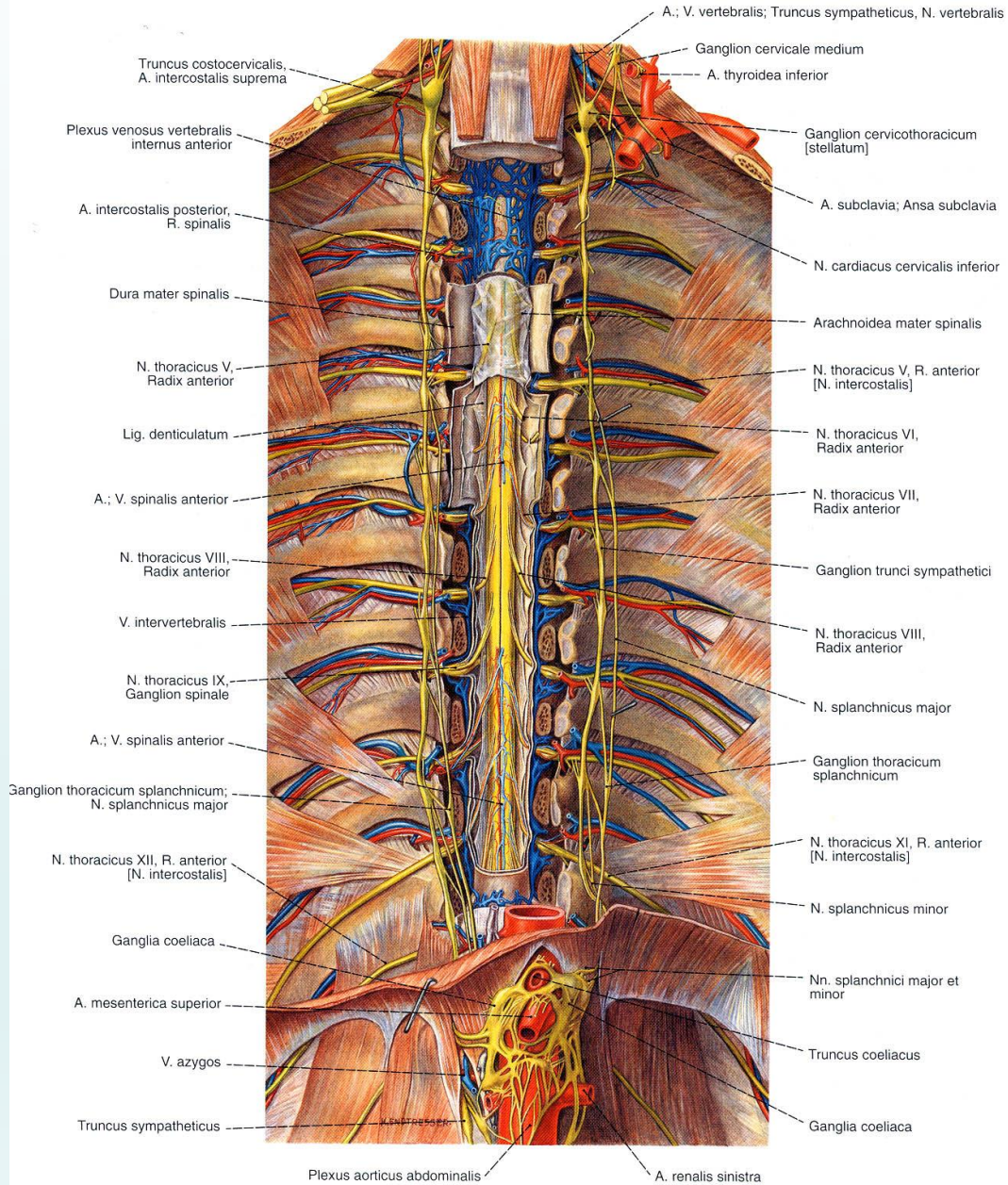
Arteria mesenterica inferior, Angiographie



1. Art. mesenterica inf.
2. Art. colica sin.
3. Art. colica sin., ramus ascendens

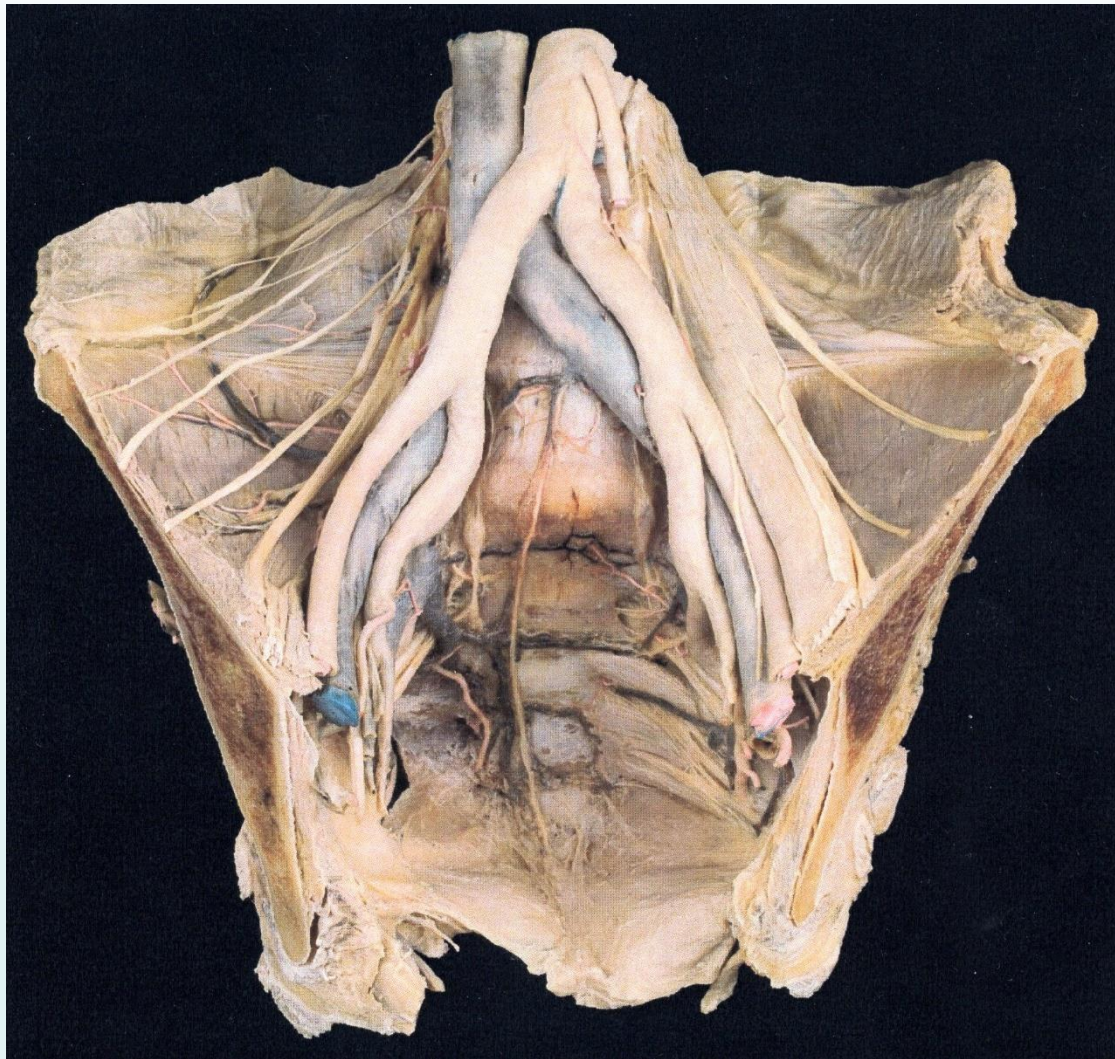
4. Aa. sigmoideae
5. Art. sigmoidea ima
6. Art. rectalis sup.

Truncus sympathicus



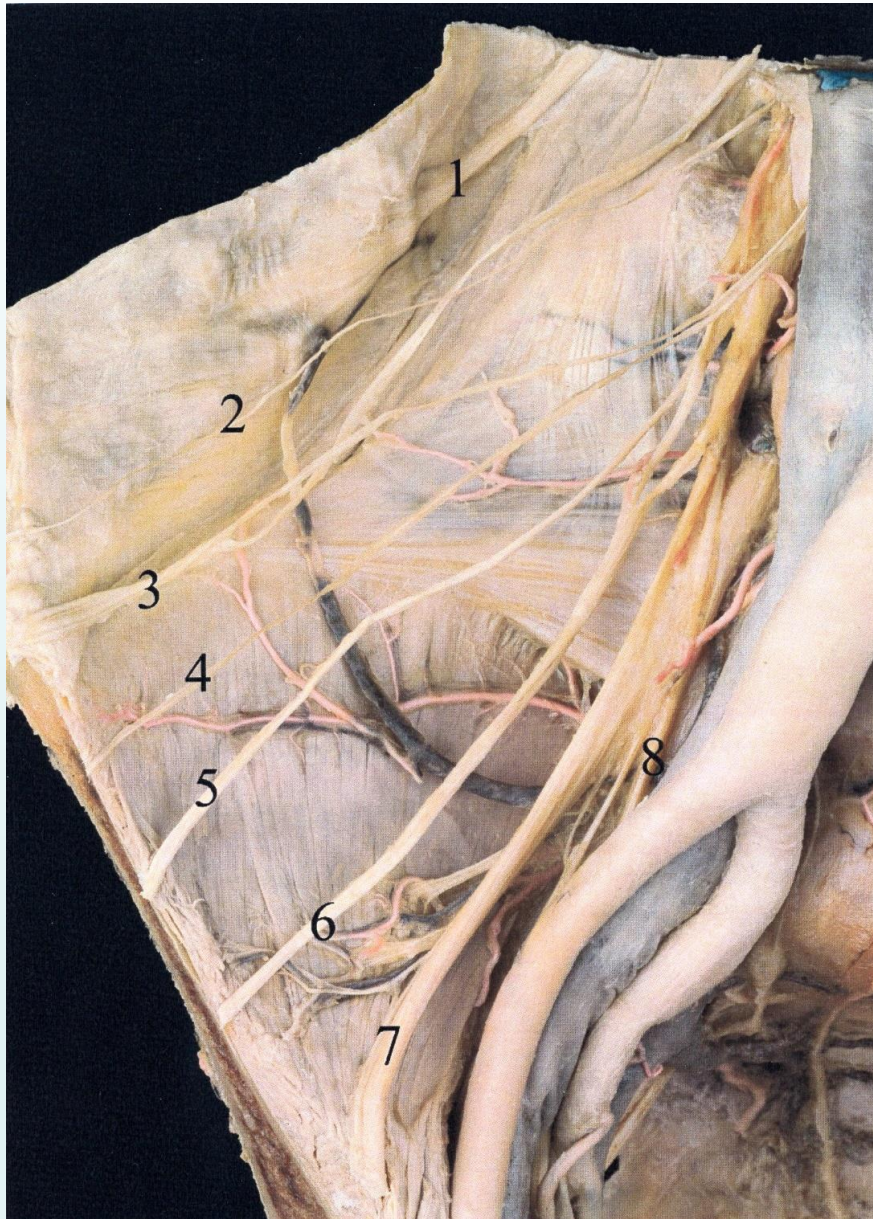
Regio lumbosacralis

ventrale Ansicht



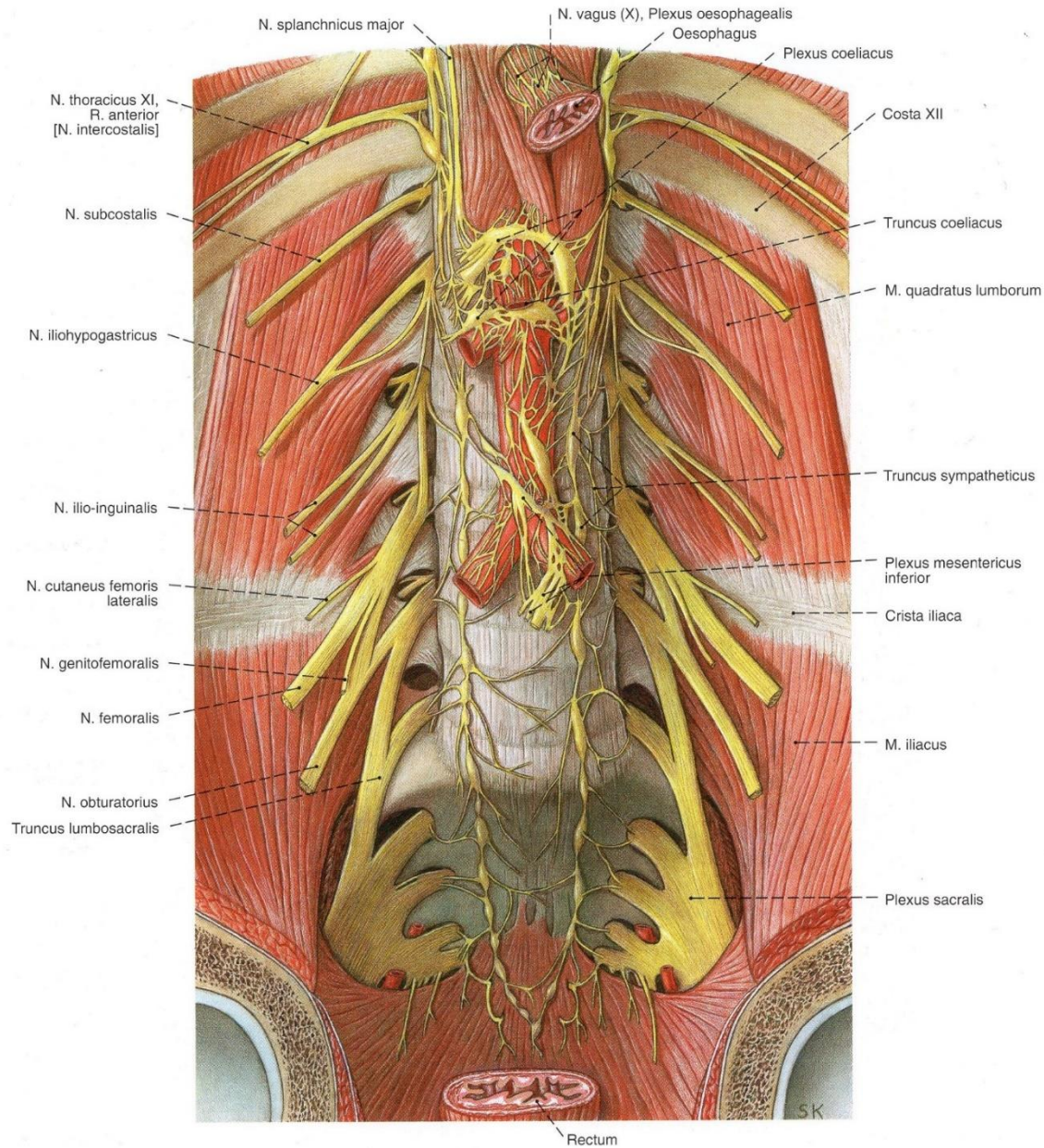
Präpariert von Kristóf Király, Medizinstudent, VI. Jahrg. für den Mihákovits Wettbewerb, 2020 (I. Preis)
Mentor: Dr. Tamás Ruttkay

Plexus lumbalis nach Entfernung des M. psoas major

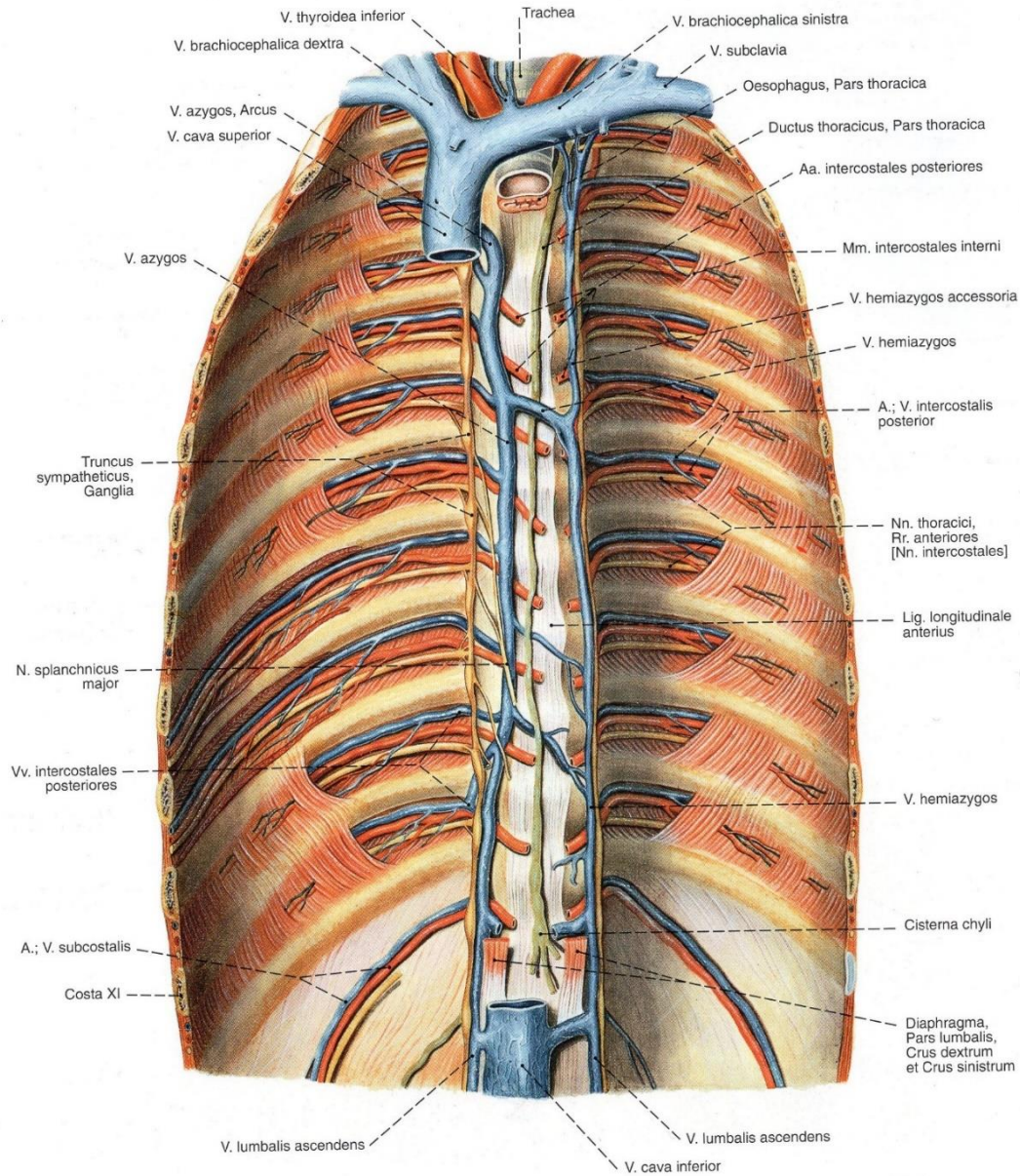


- 1 – N. subcostalis
- 2 – N. iliohypogastricus
- 3 – N. ilioinguinalis
- 4 – N. cutaneus femoris lat.
- 5 – N. genitofemoralis
- 6 – N. obturatorius
- 7 – N. femoralis
- 8 – Truncus lumbosacralis

Nerven im Retroperitoneum und Becken



Ductus thoracicus, V. azygos u. hemiazygos



Lymphknoten und Lymphbahnen im Retroperitoneum

