

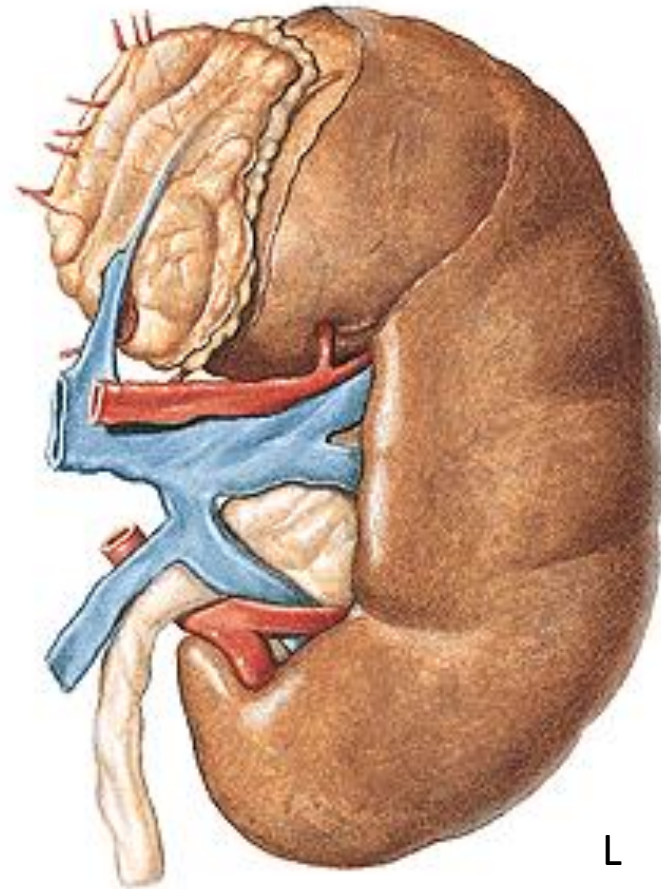
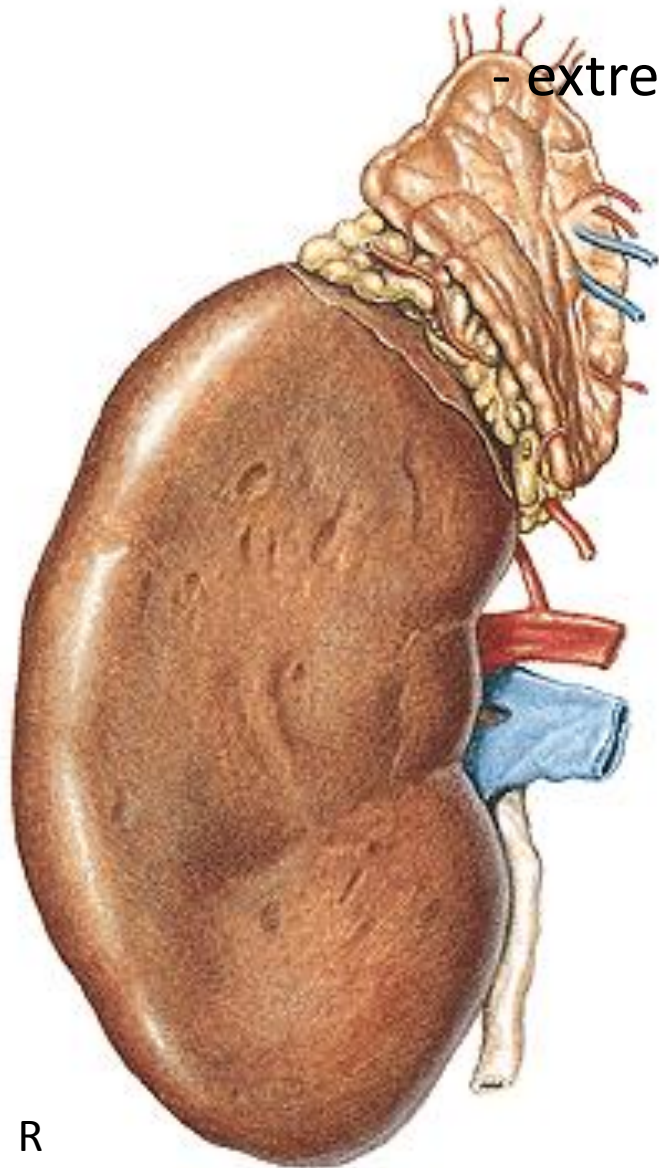
URINARY SYSTEM

REN, NEPHROS - facies anterior et posterior

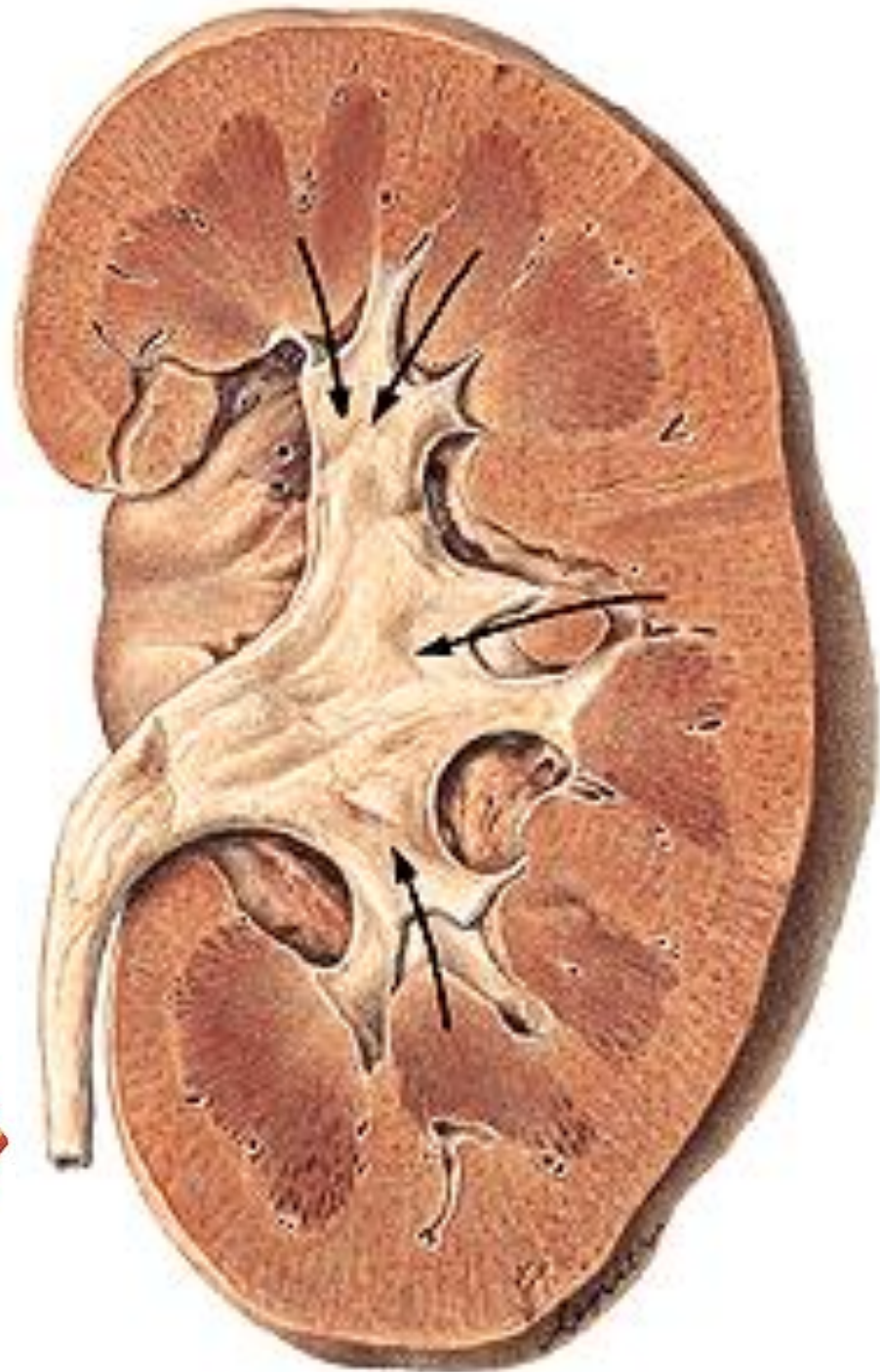
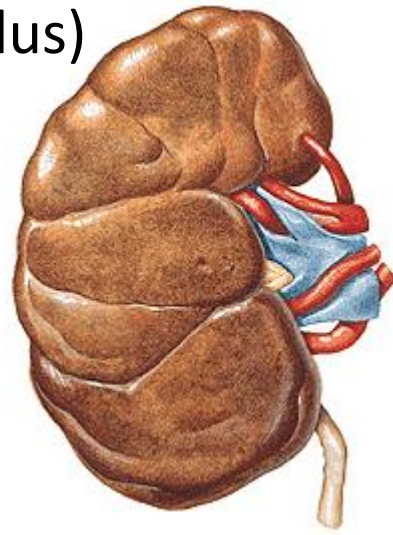
- margo lateralis et medialis - hilum renale

- sinus renalis

- extremitas superior et inferior



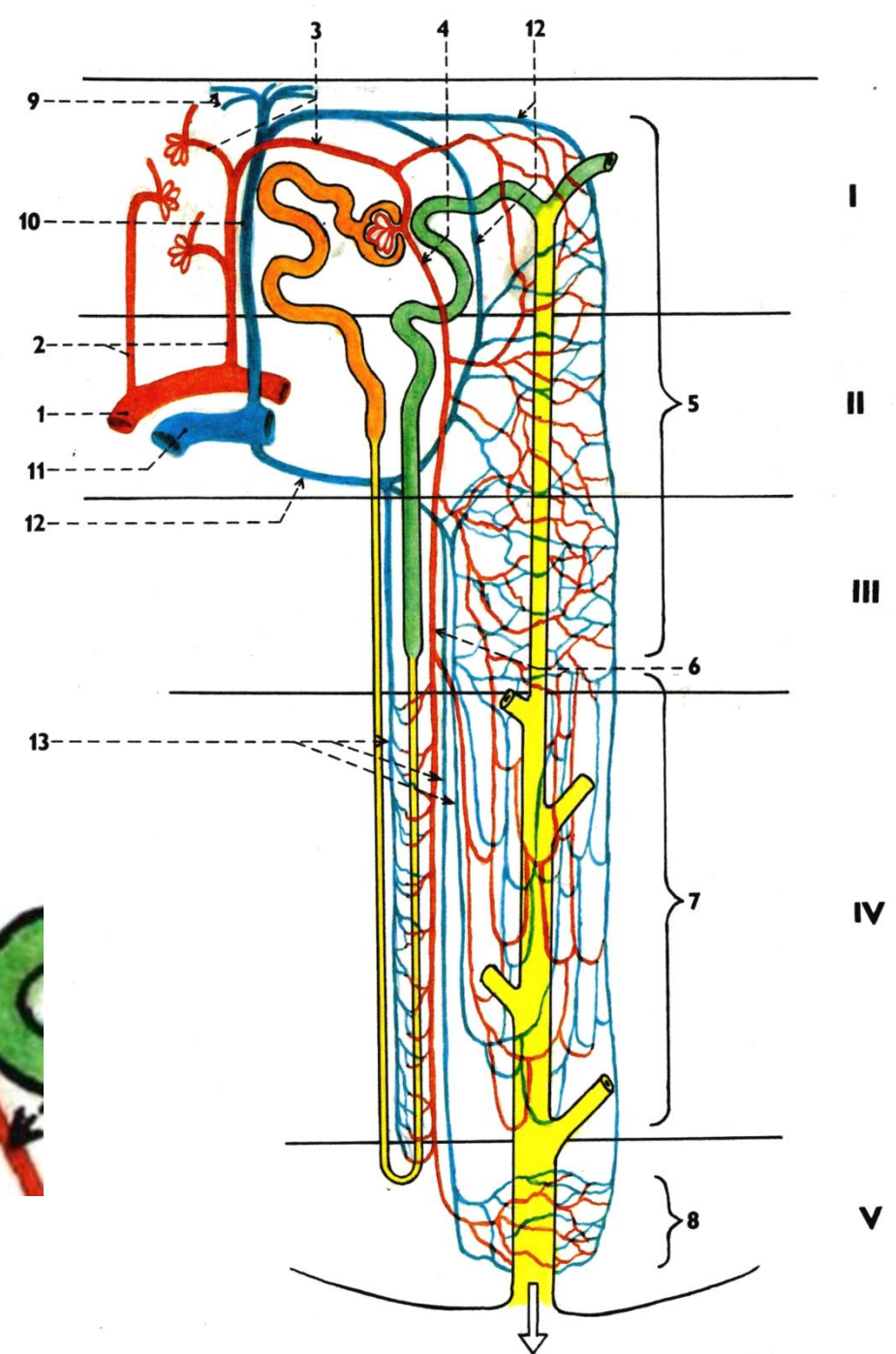
Capsula fibrosa
Cortex renalis
Medulla renalis
– 6-20 pyramides renales
Columnae renales
Pars radiata corticis
Papilla renalis
Ductus papillares
Foramina papillaria
Area cribrosa
Sinus renalis
Lobus renalis (Renculus)
Renculi-marking
(renculization)



NEPHRON

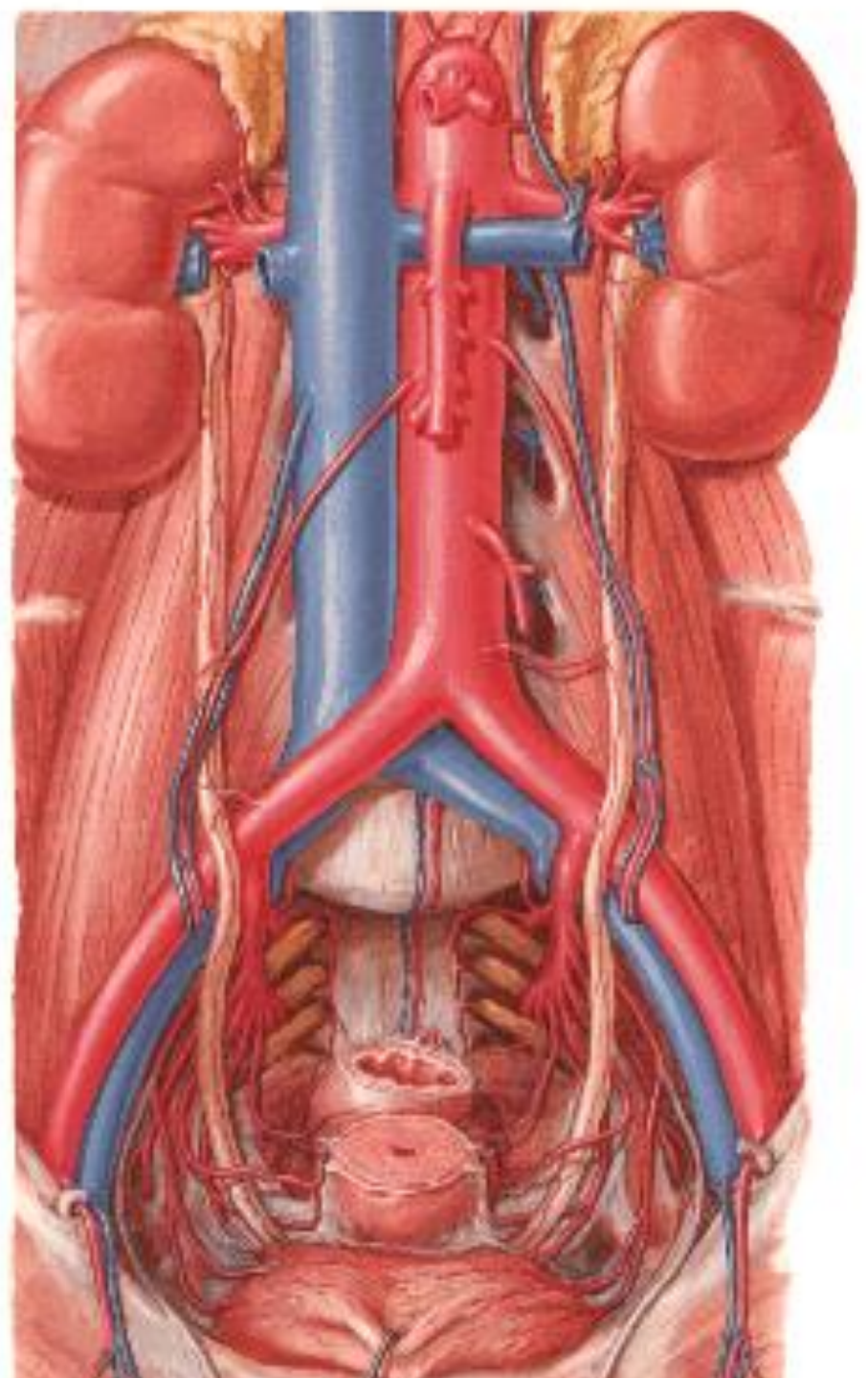
- Corpusculum renale (Malpighi)
 - Glomerulus
 - Capsula glomeruli (Bowman)
- Tubulus proximalis
- Henle's loop
- Tubulus distalis

Tubulus colligens
Ductus papillaris
Foramen papillare



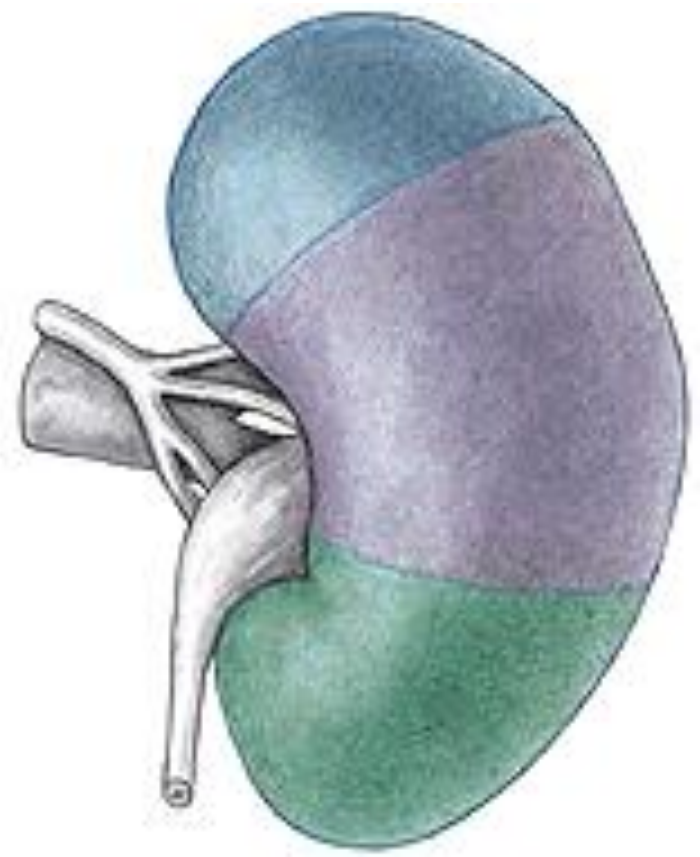
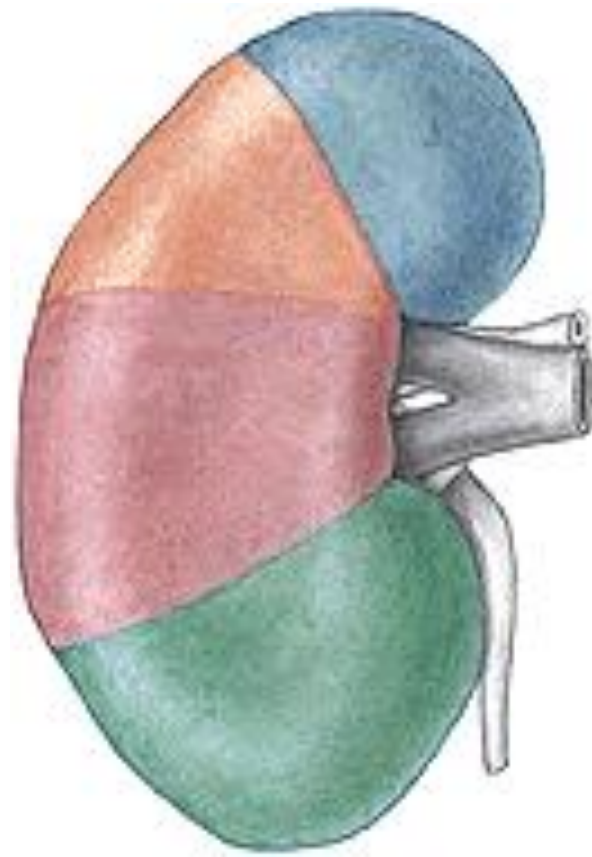
A. renalis

- r. anterior – 4 rr. praepelvici
- r. posterior – r. retropelvicus
- aa. lobares – aa. interlobares



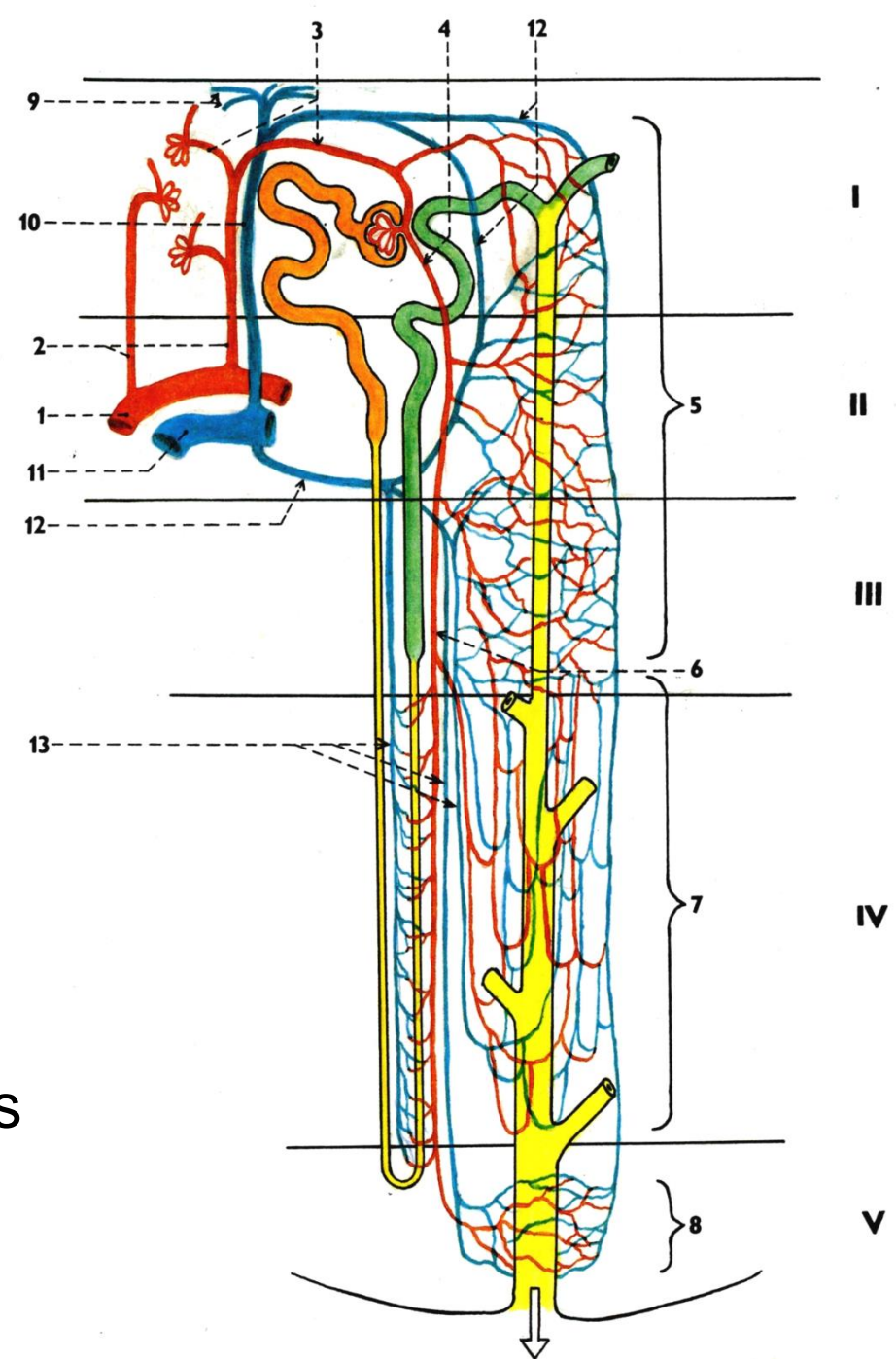
Segmenta renalia – s. superius

- s. anterius superius
- s. anterius inferius
- s. inferius
- s. posterius

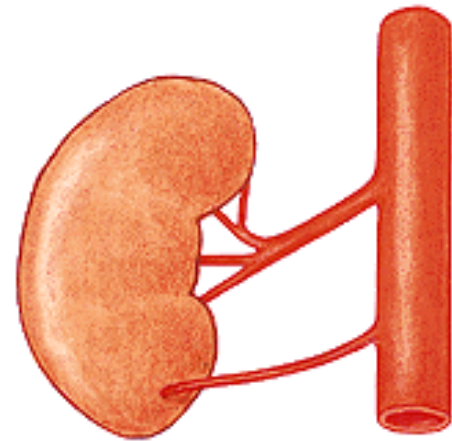
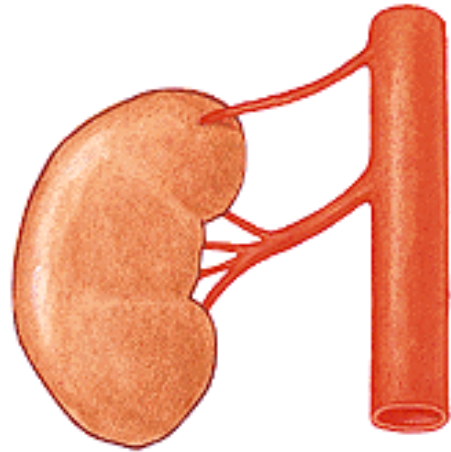
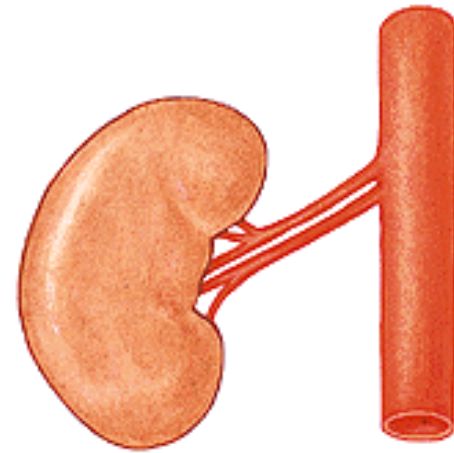
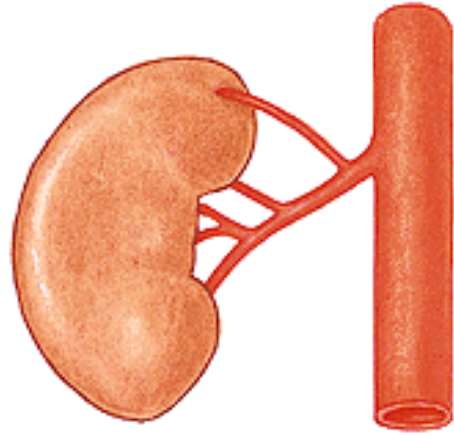


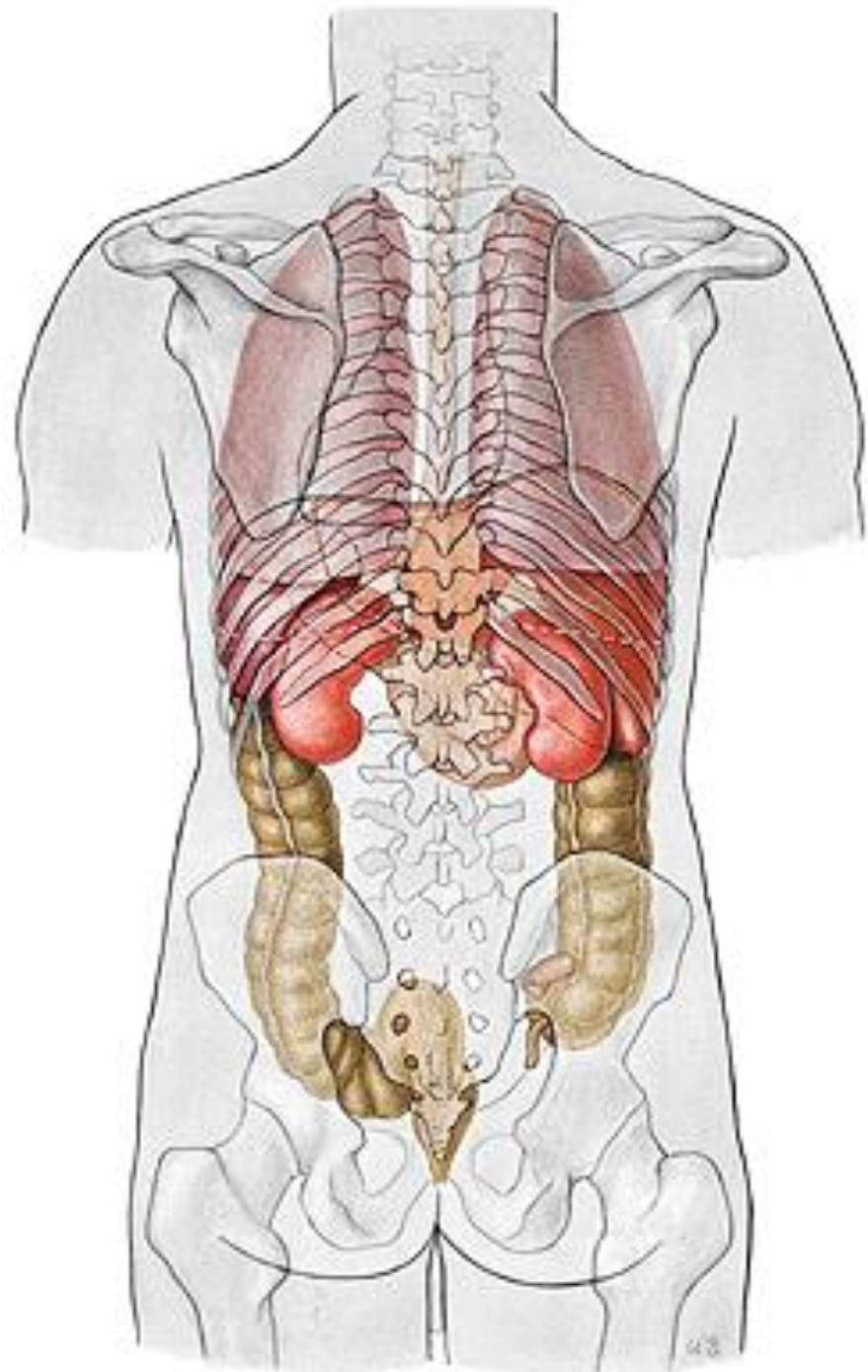
Aa. interlobares:

1. A. arcuata
2. A. interlobularis
3. Vas afferens
4. Vas efferens
5. Peritubular capillary plexus
6. Arteriola recta
7. Capillary plexus in the medulla
8. Capillary plexus around papillary duct
9. Venulae stellatae
10. V. interlobularis
11. V. arcuata
12. Vein from the peritubular plexus
13. Venulae rectae



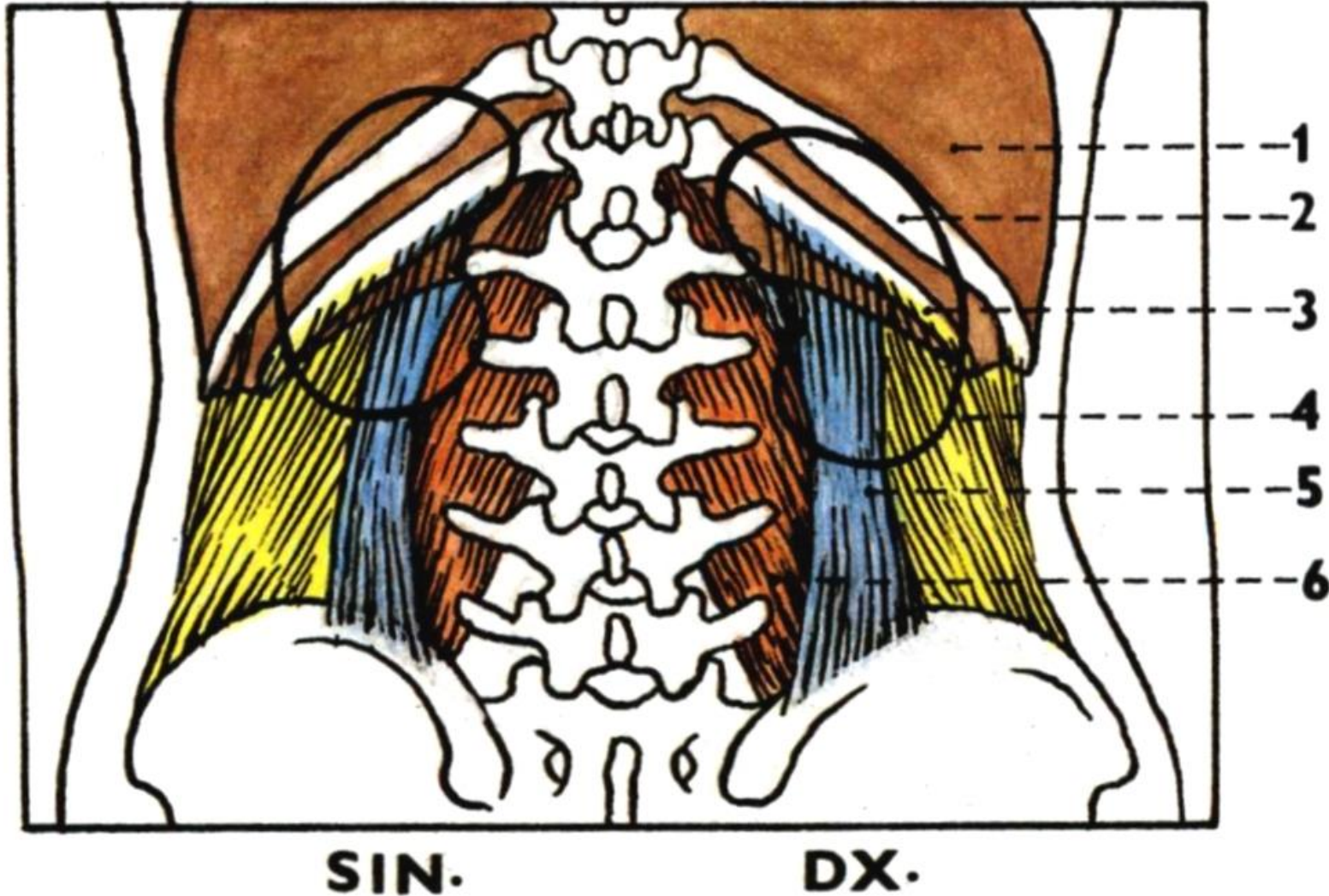
Aa. renales accessoriae

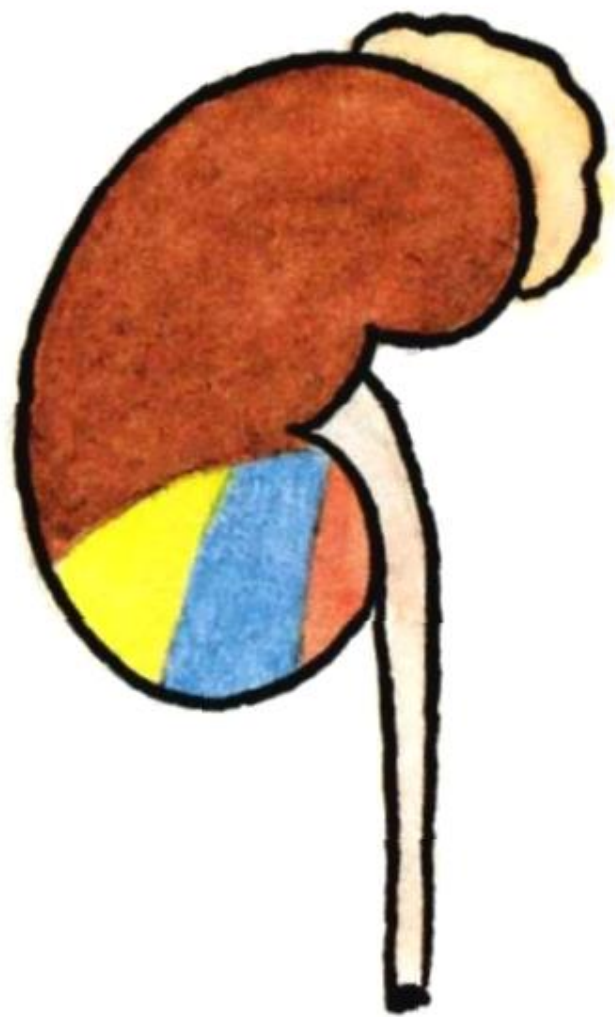




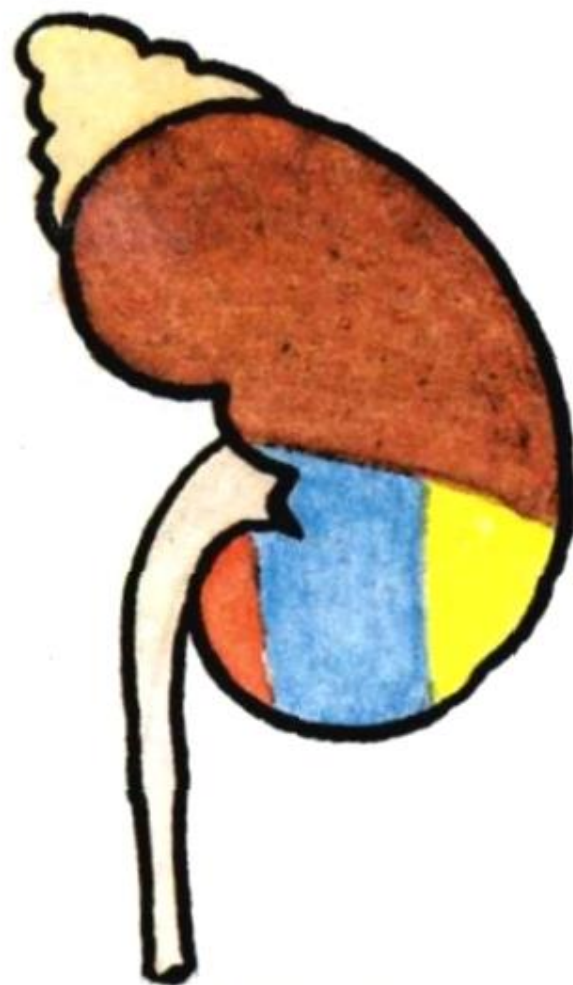
1. Diaphragma
2. 11th rib
3. 12th rib

4. M. transversus abdominis
5. M. quadratus lumborum
6. M. psoas major





SIN.

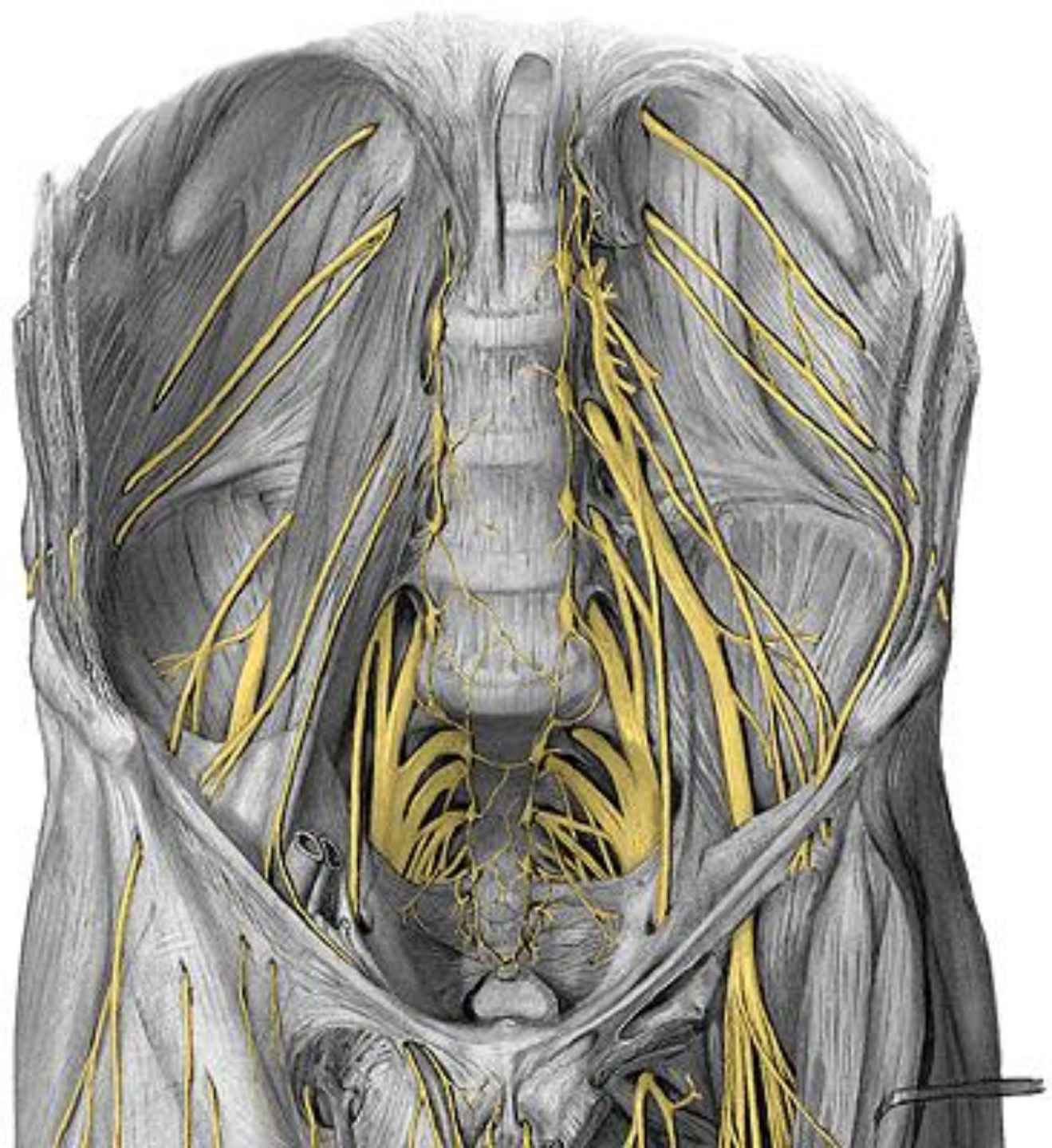


DX.

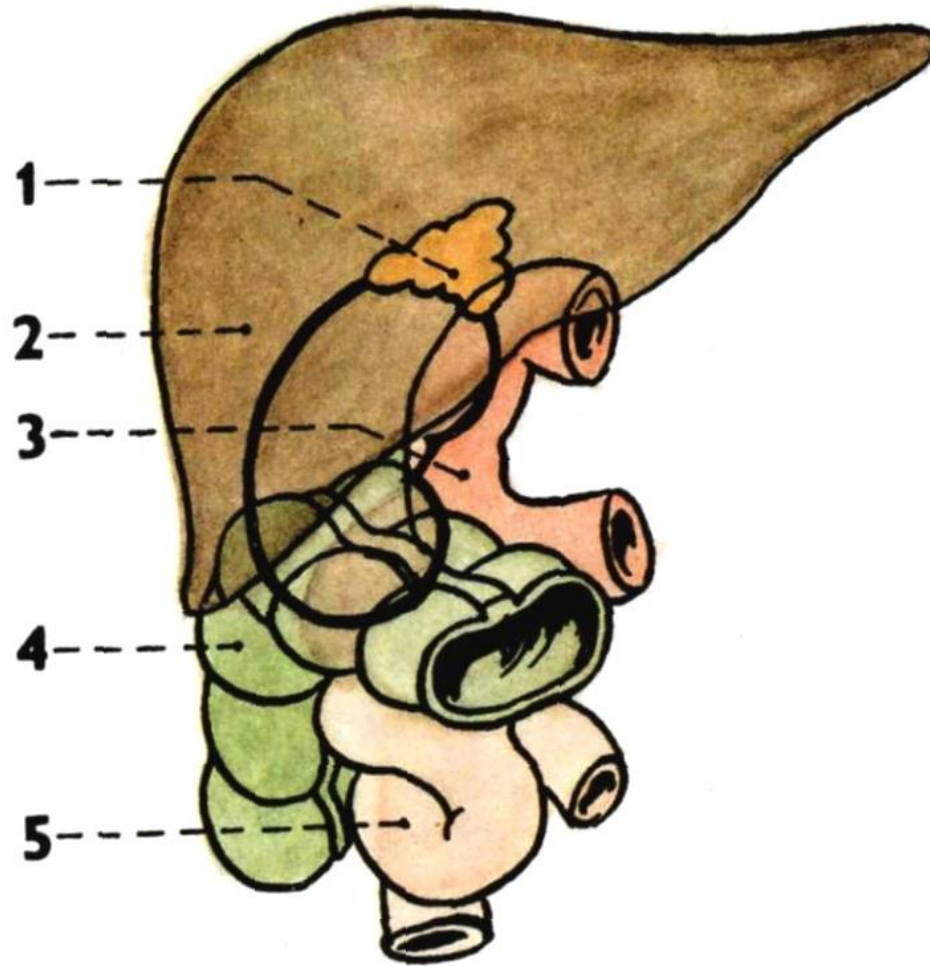
N. subcostalis

N. iliohypogastricus

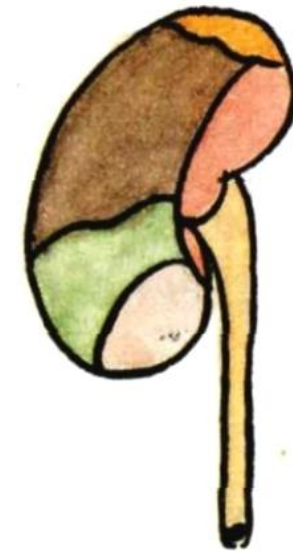
N. ilioinguinalis



1. Gl. suprarenalis dx.
2. Liver
3. Duodenum
4. Flexura coli dx.
5. Jejunum

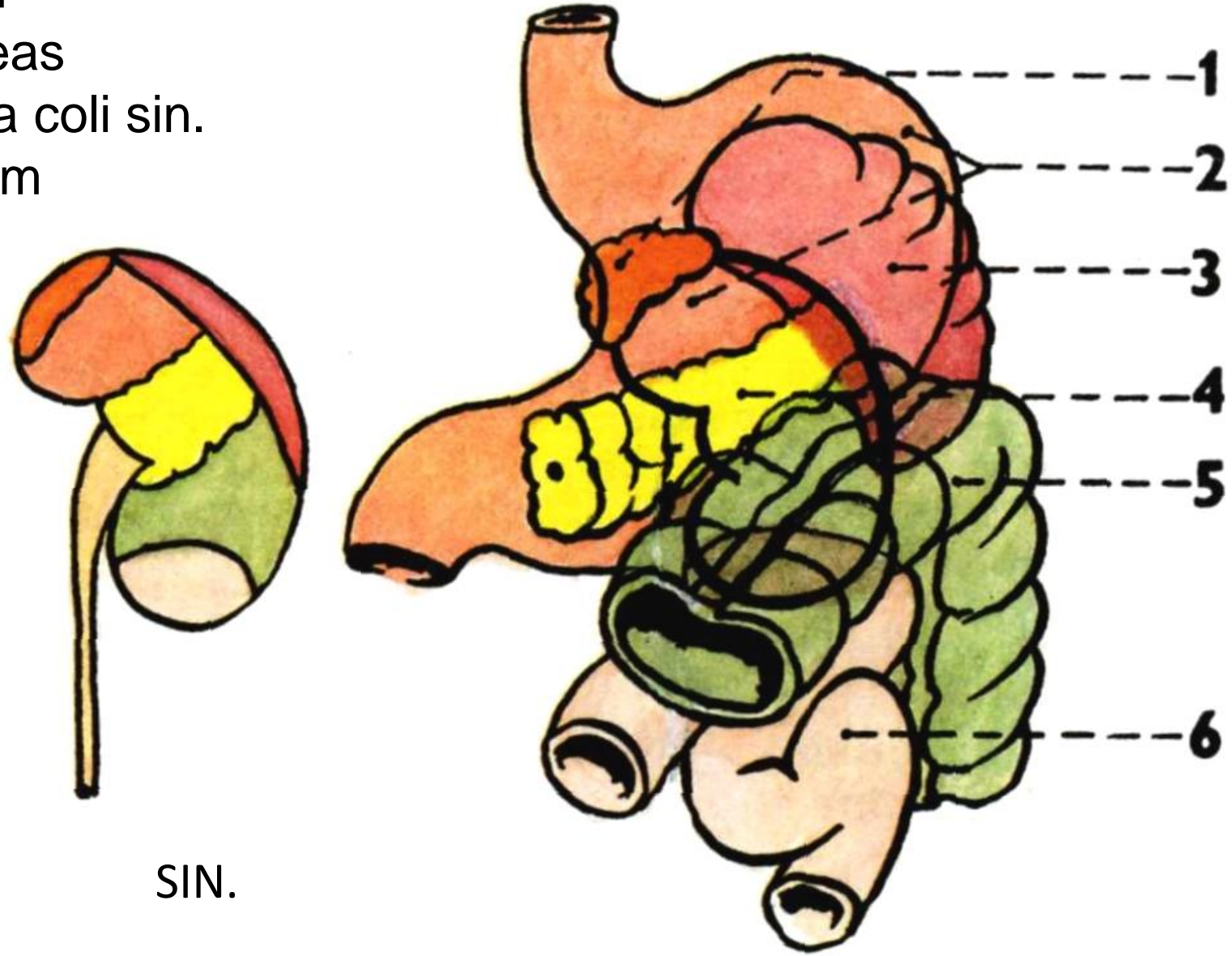


DX.



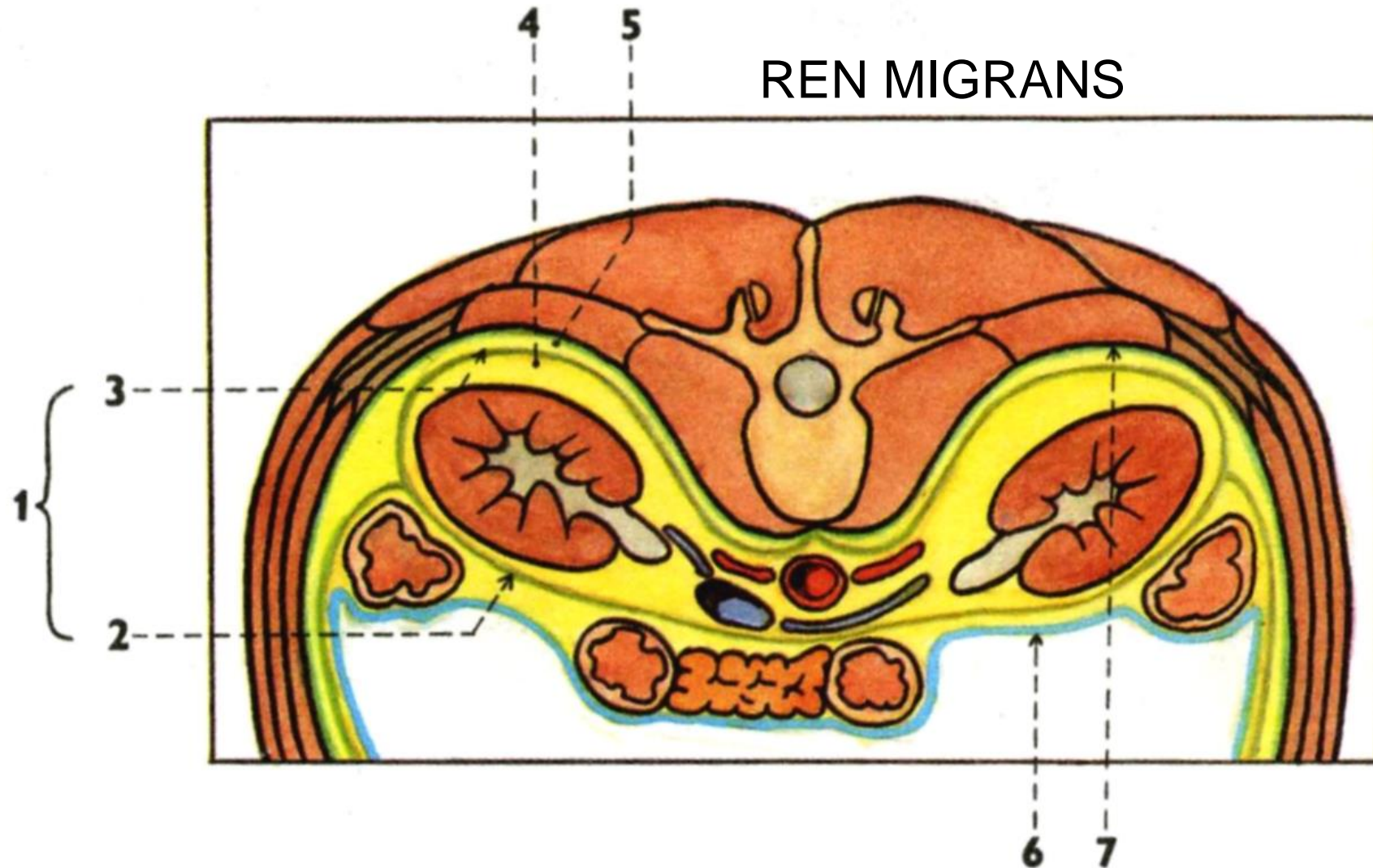
DX.

1. Gl. suprarenalis sin.
2. Stomach
3. Spleen
4. Pancreas
5. Flexura coli sin.
6. Jejunum



1. Fascia renalis
2. Lamina praerenalis
3. Lamina retrorenalis
4. Capsula adiposa

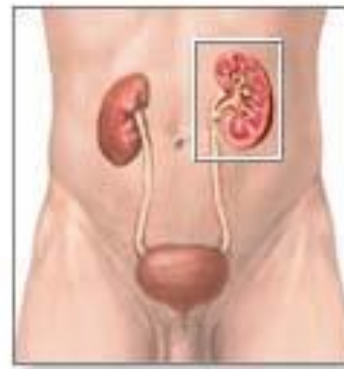
5. Corpus adiposum pararenale
6. Peritoneum
7. Fascia transversalis



Nephrolithiasis

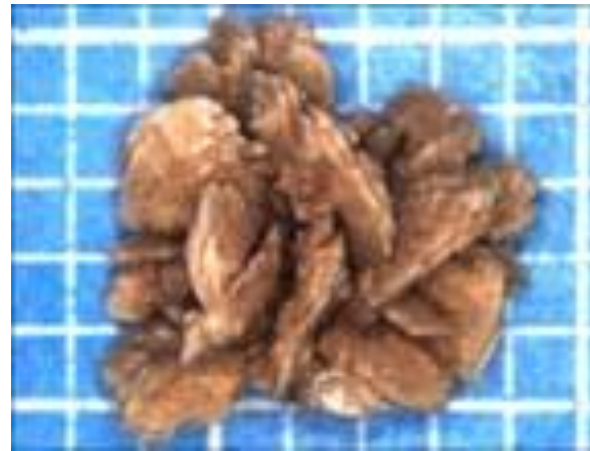
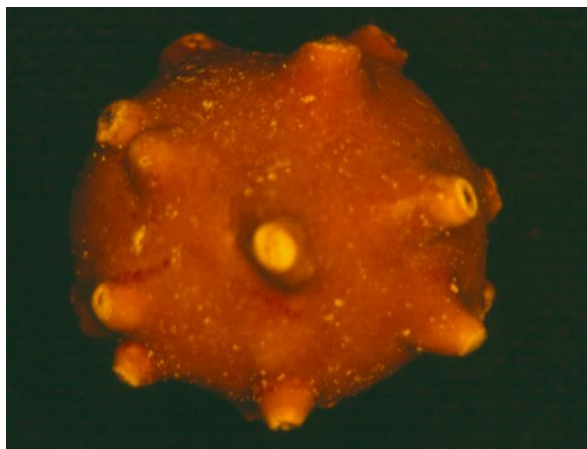
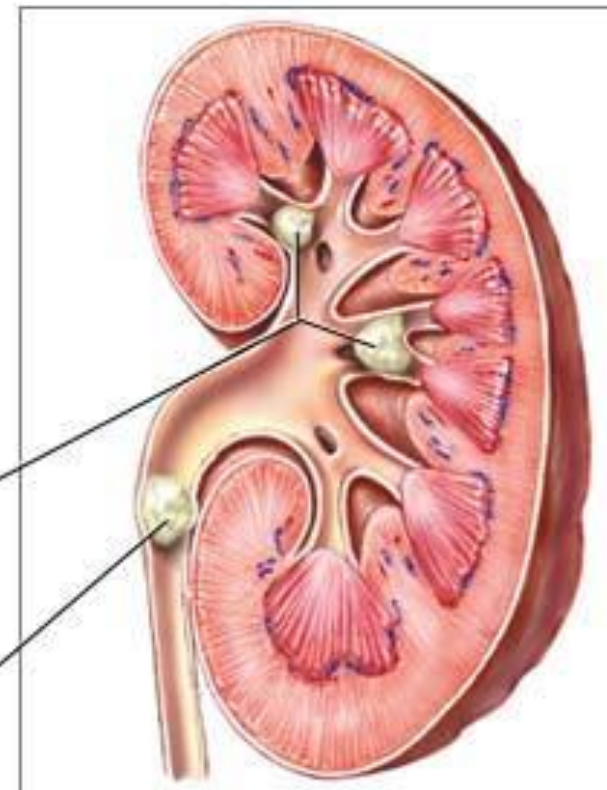
Calcium oxalate crystals – 80%

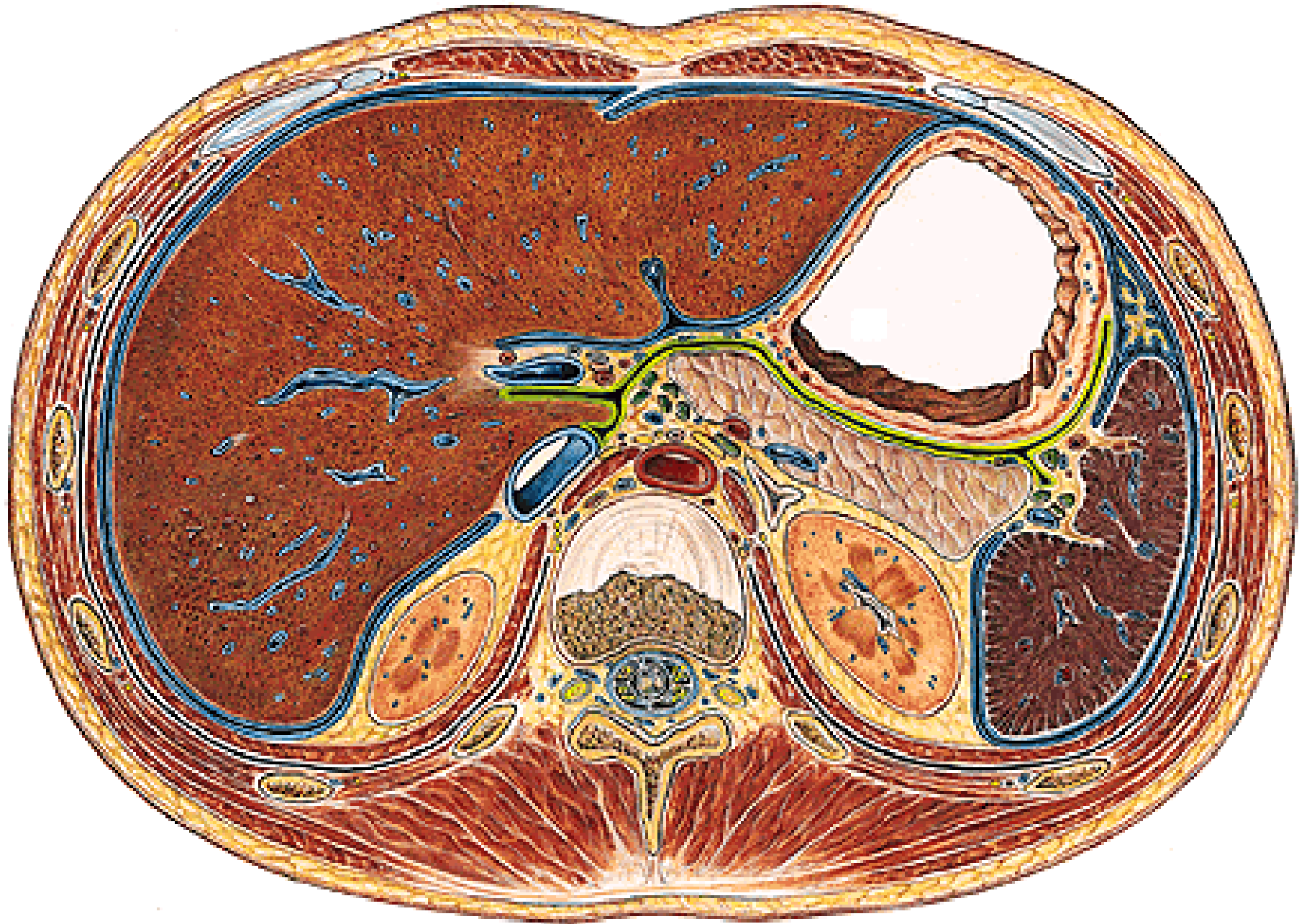
Uric acid – 5 - 10%



Kidney stones in the minor and major calyces of the kidney

Kidney stone in the ureter





Transverse section through the intervertebral disc between T12 and L1



Cross-sectional image through the L1 obtained with CT

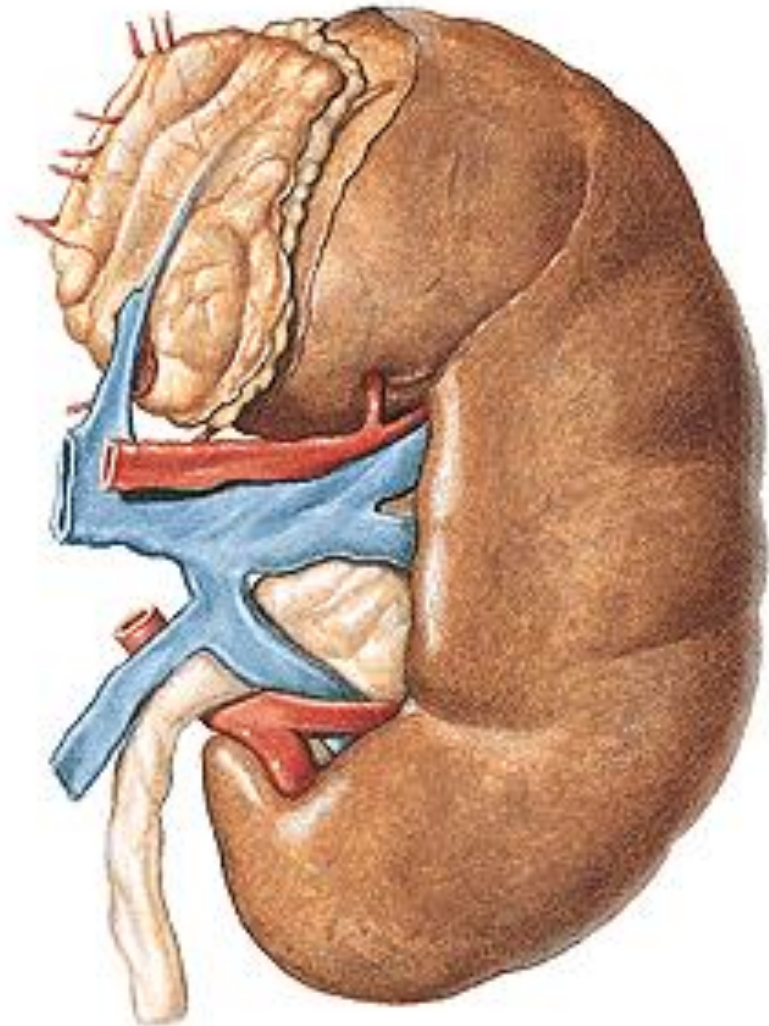
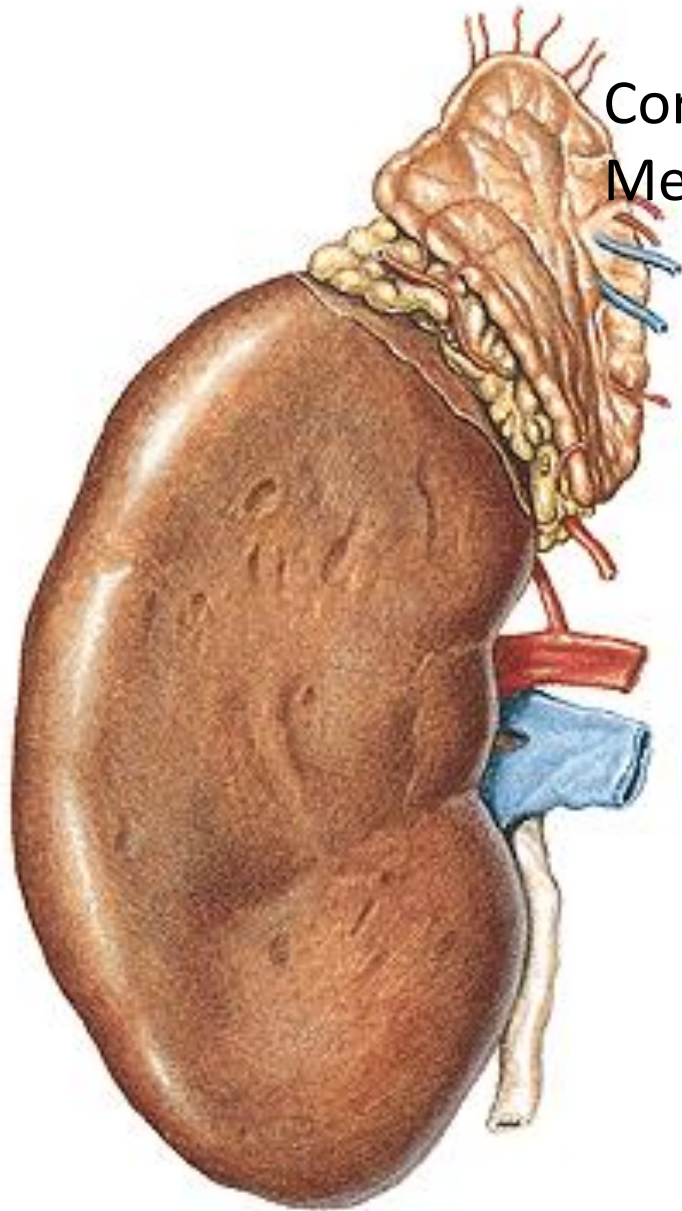
GLANDULA SUPRARENALIS – facies anterior – hilum

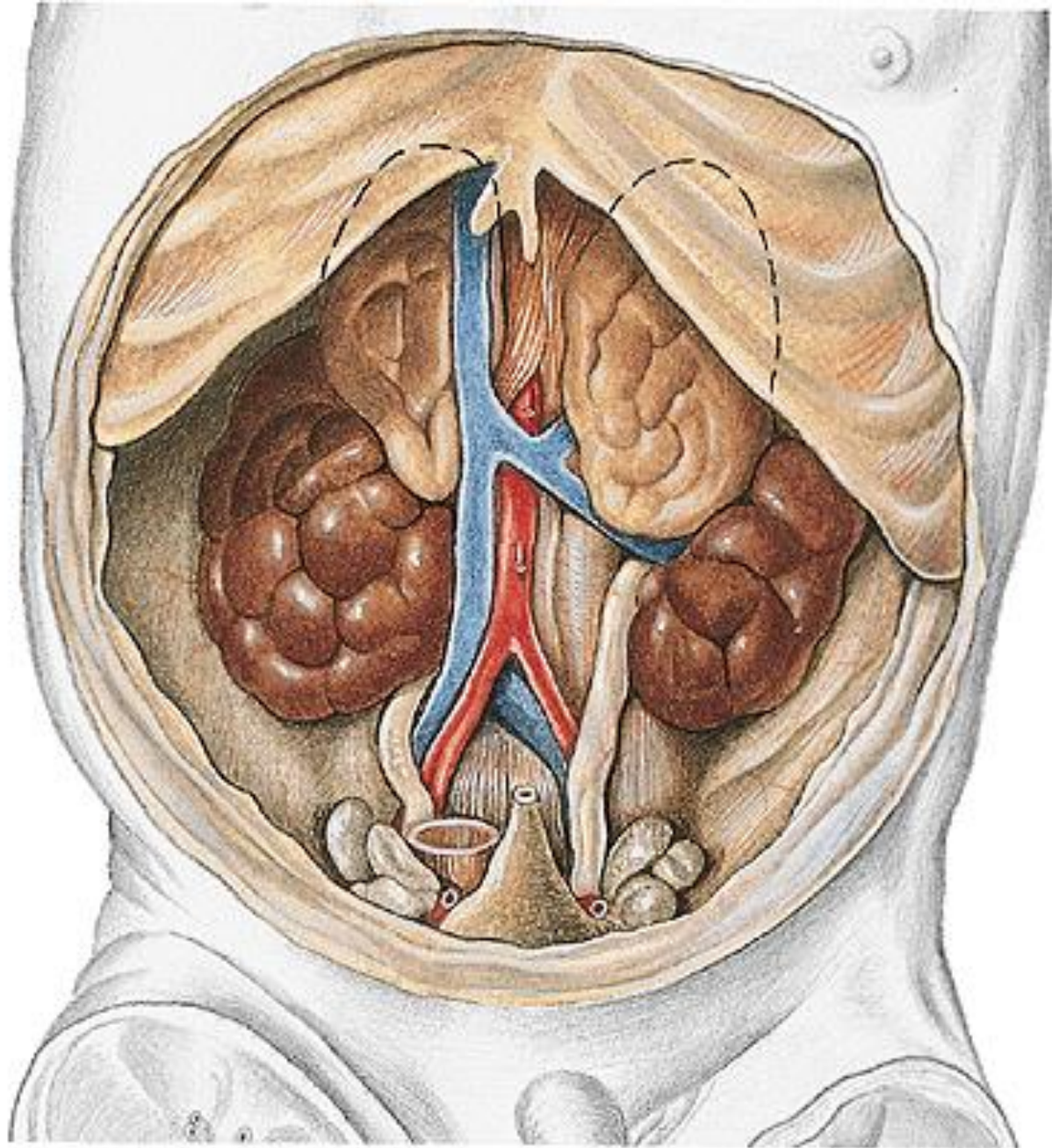
- facies posterior

- facies renalis

Cortex

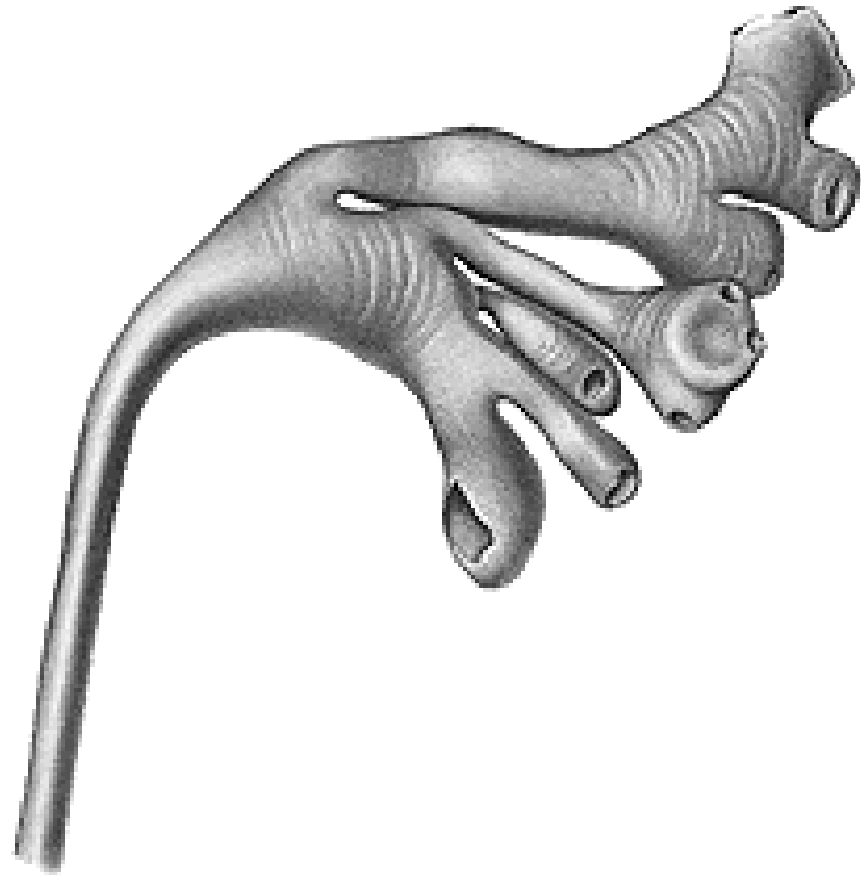
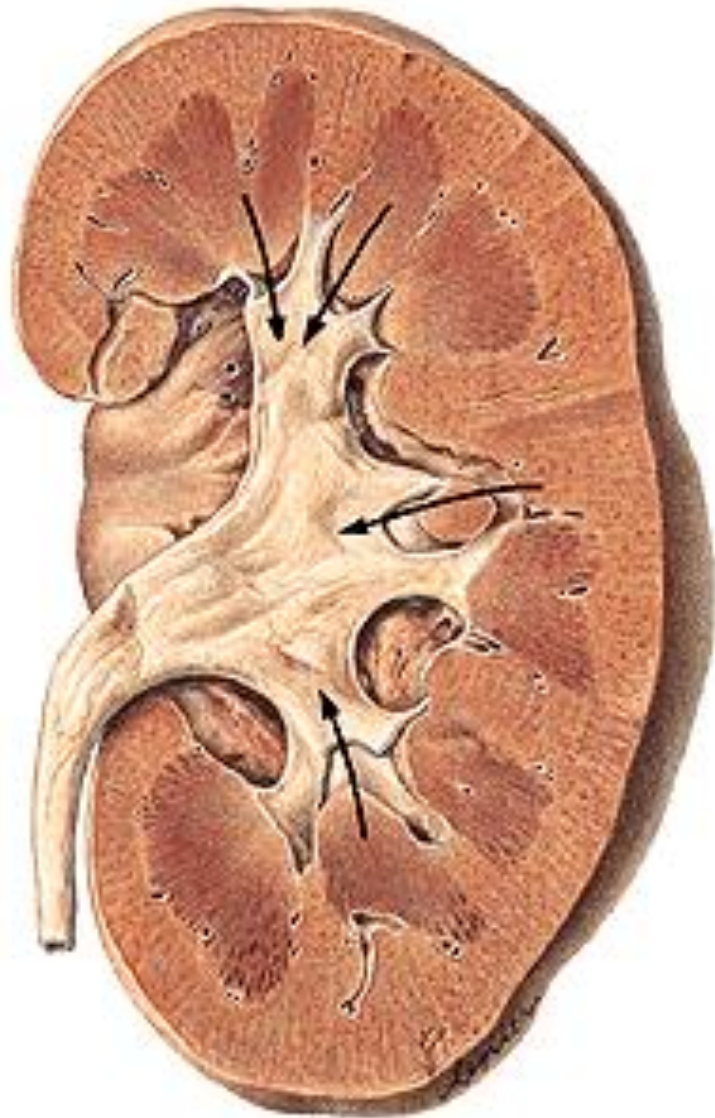
Medulla



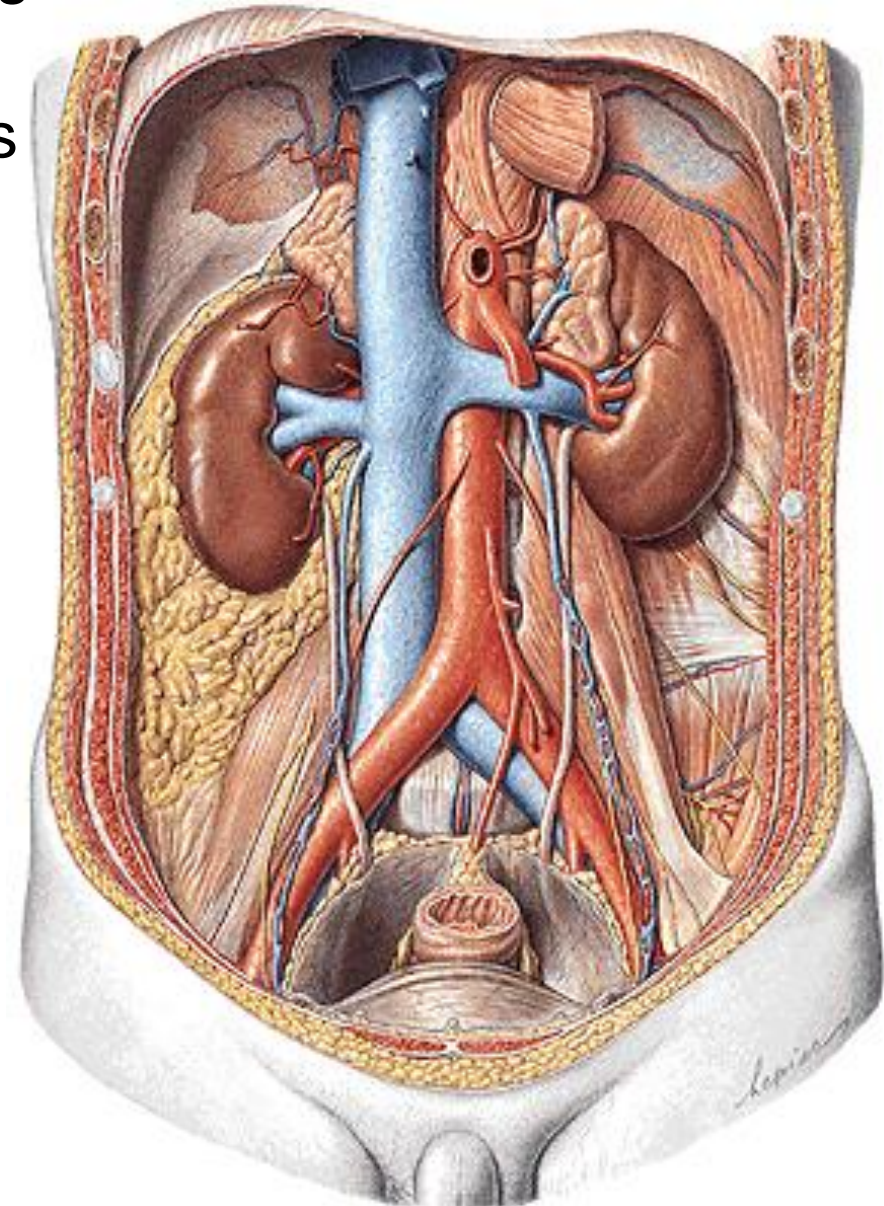
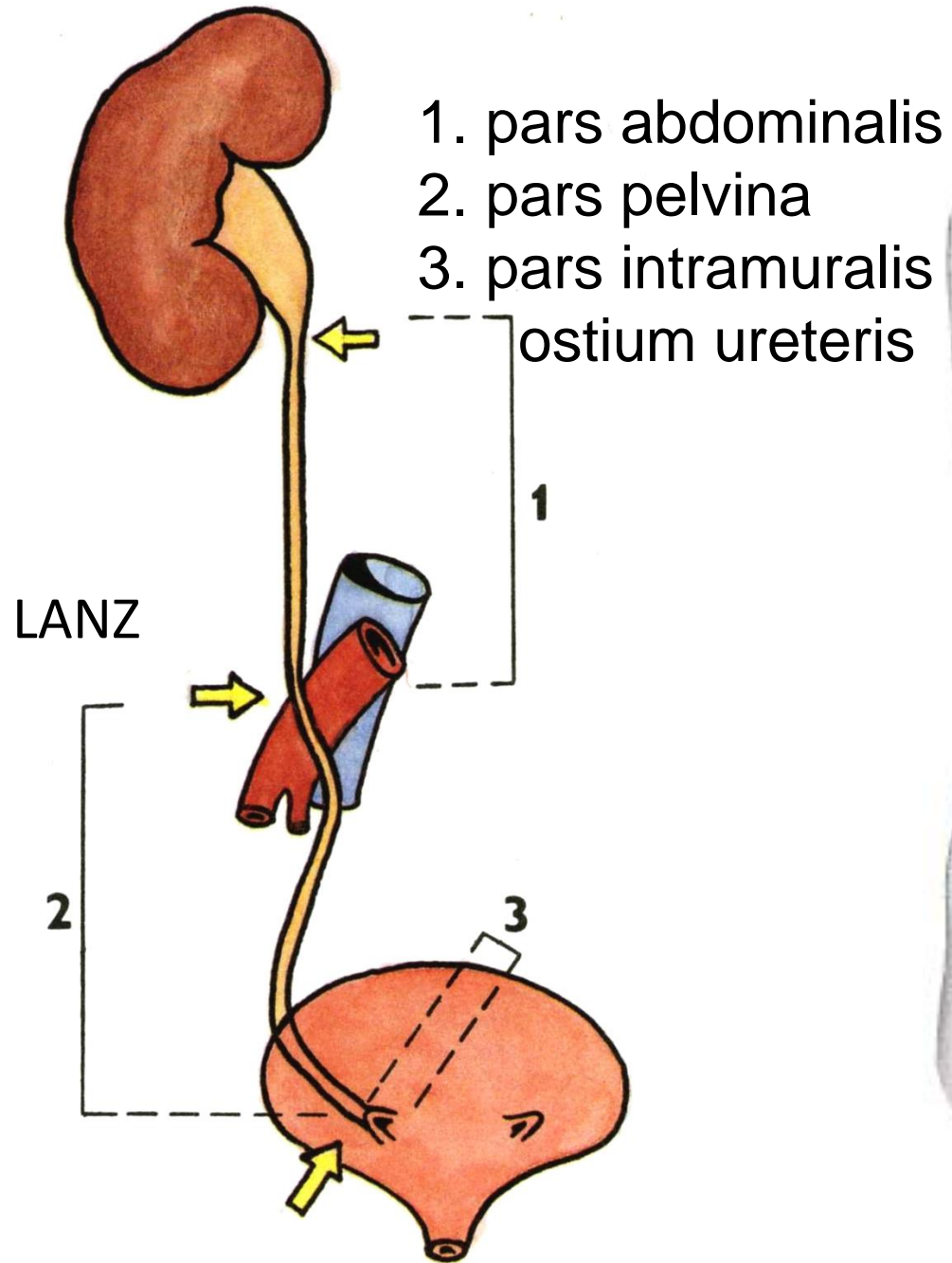


Five-month old fetus

CALICES RENALES – minores et majores
PELVIS RENALIS

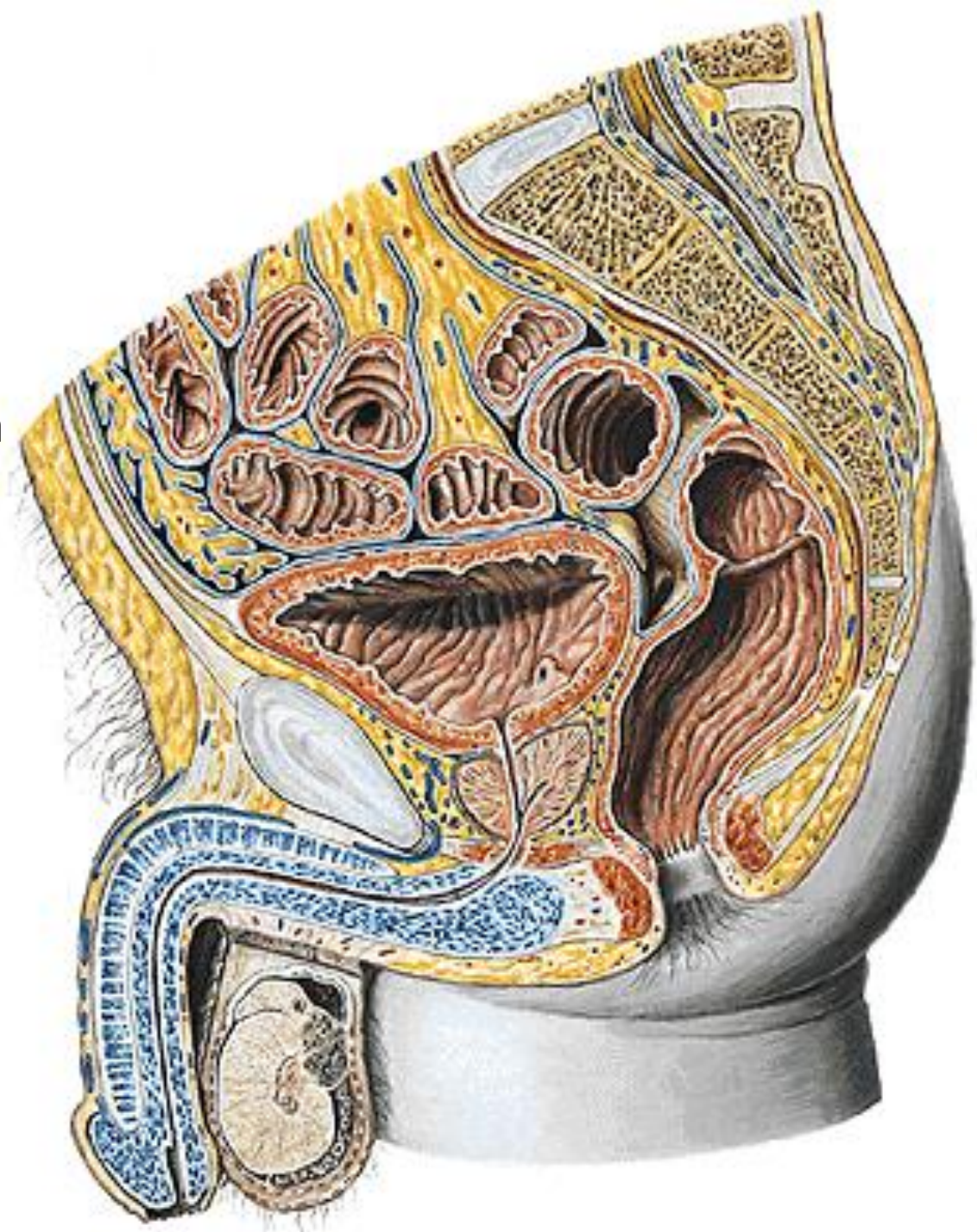


URETER



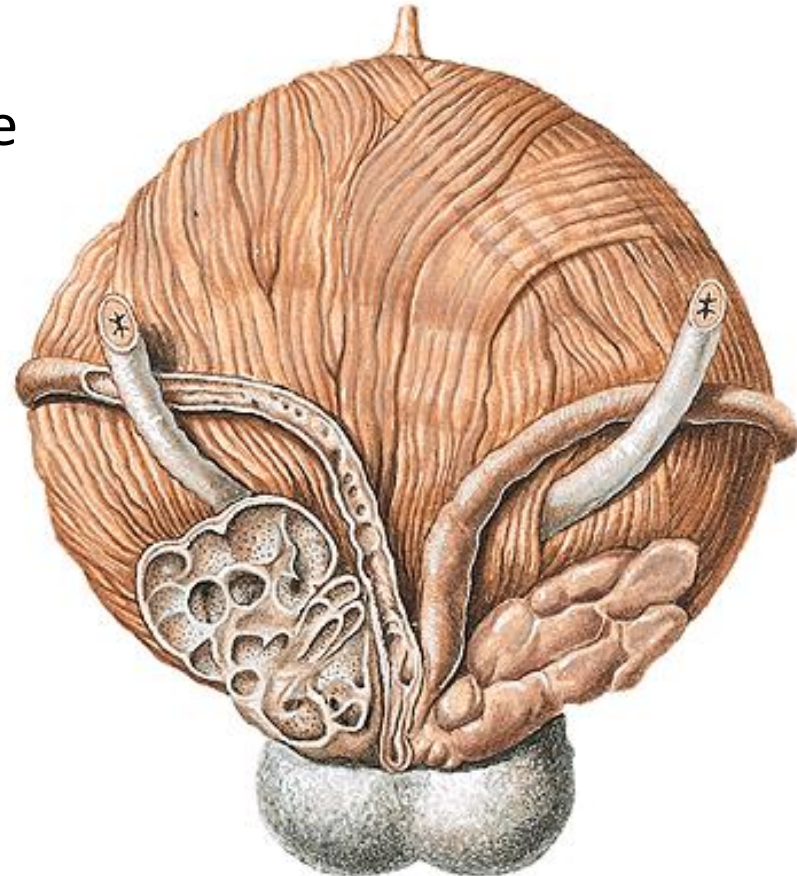
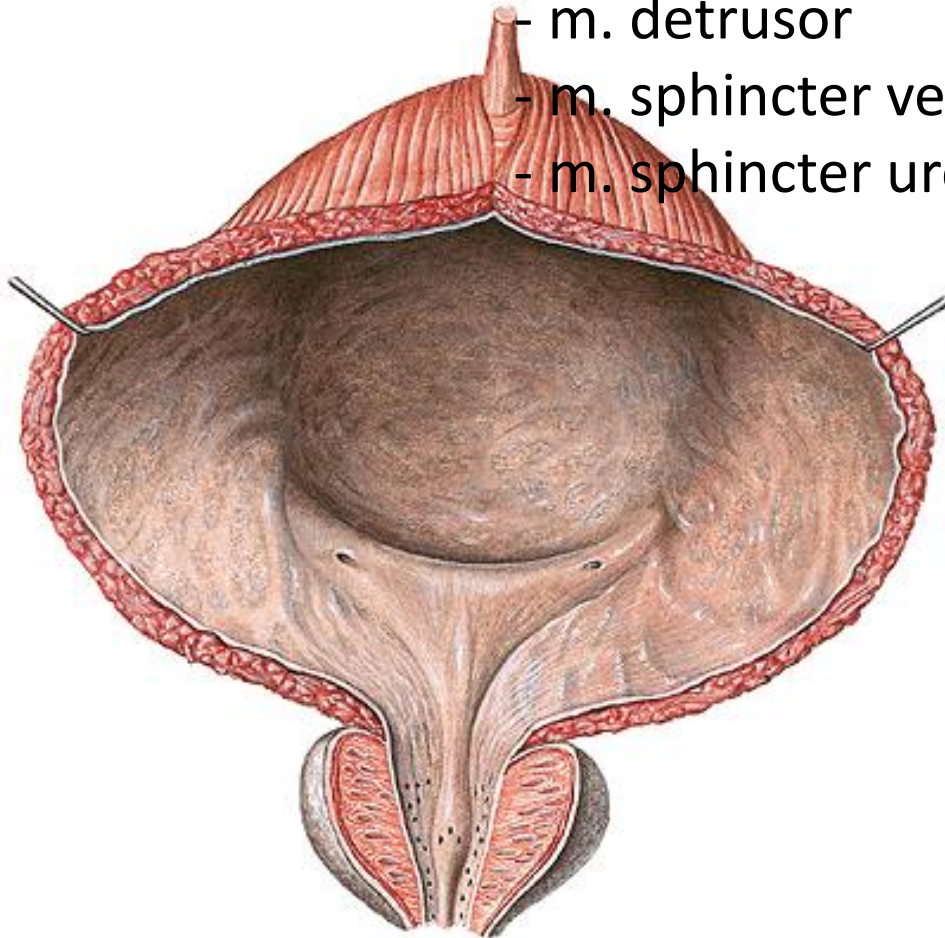
VESICA URINARIA

- fundus vesicae
- corpus vesicae
- apex vesicae
 - lig. umbilicale medianum
- cervix vesicae



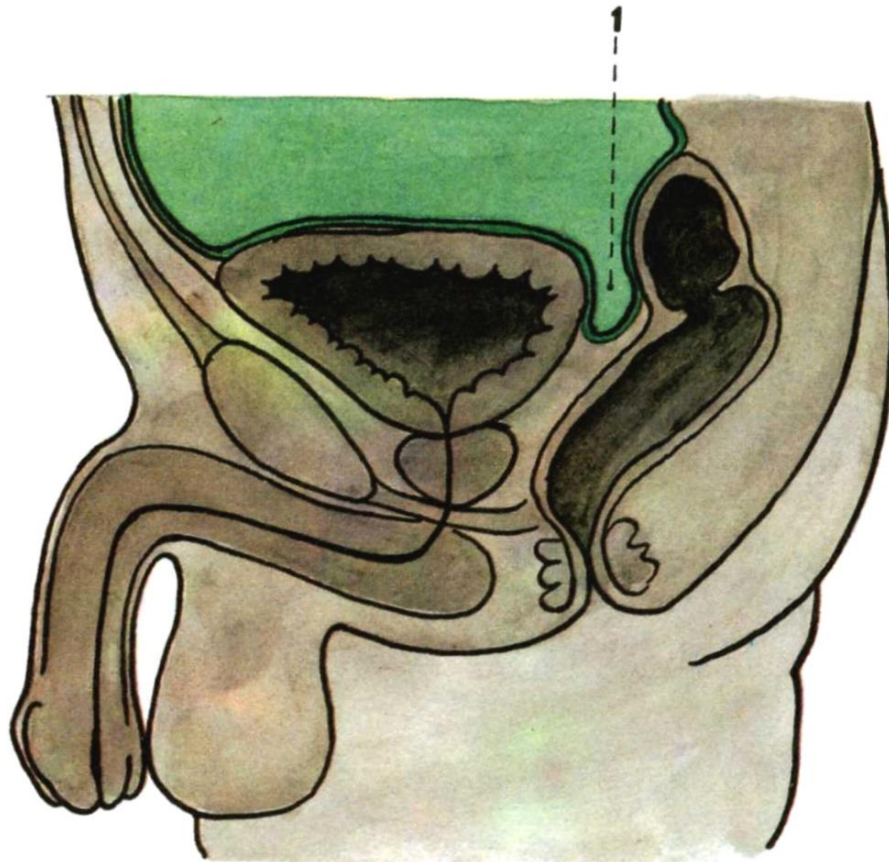
Trigonum vesicae – ostia ureterum

- ostium urethrae internum
- plica interureterica
- fossa retrotrigonalis
- bundles of Bell
- uvula vesicae
- m. detrusor
- m. sphincter vesicae
- m. sphincter urethrae



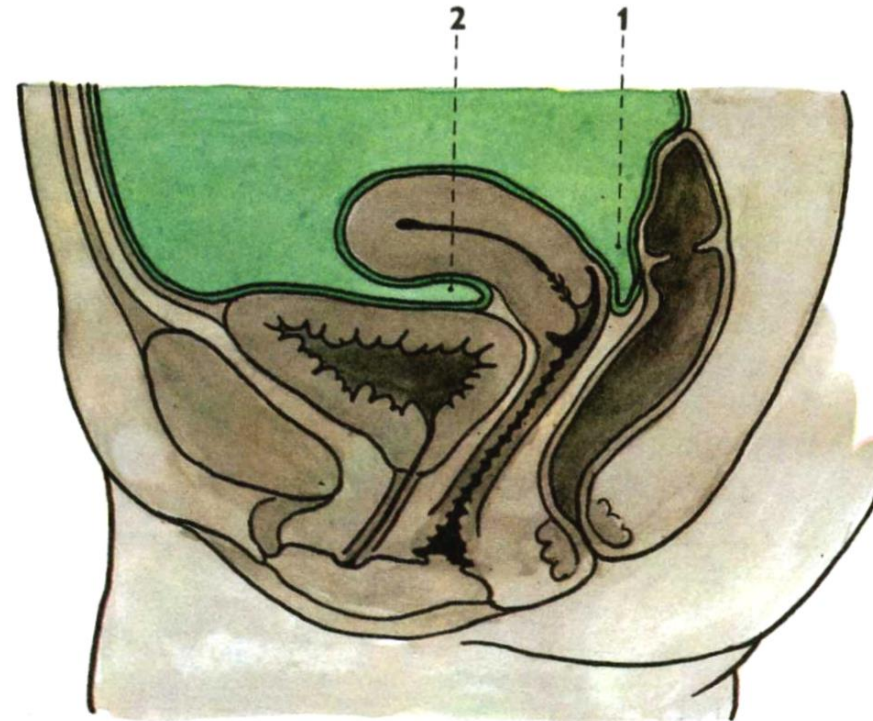
Median section through
the male pelvis

1. Excavatio rectovesicalis



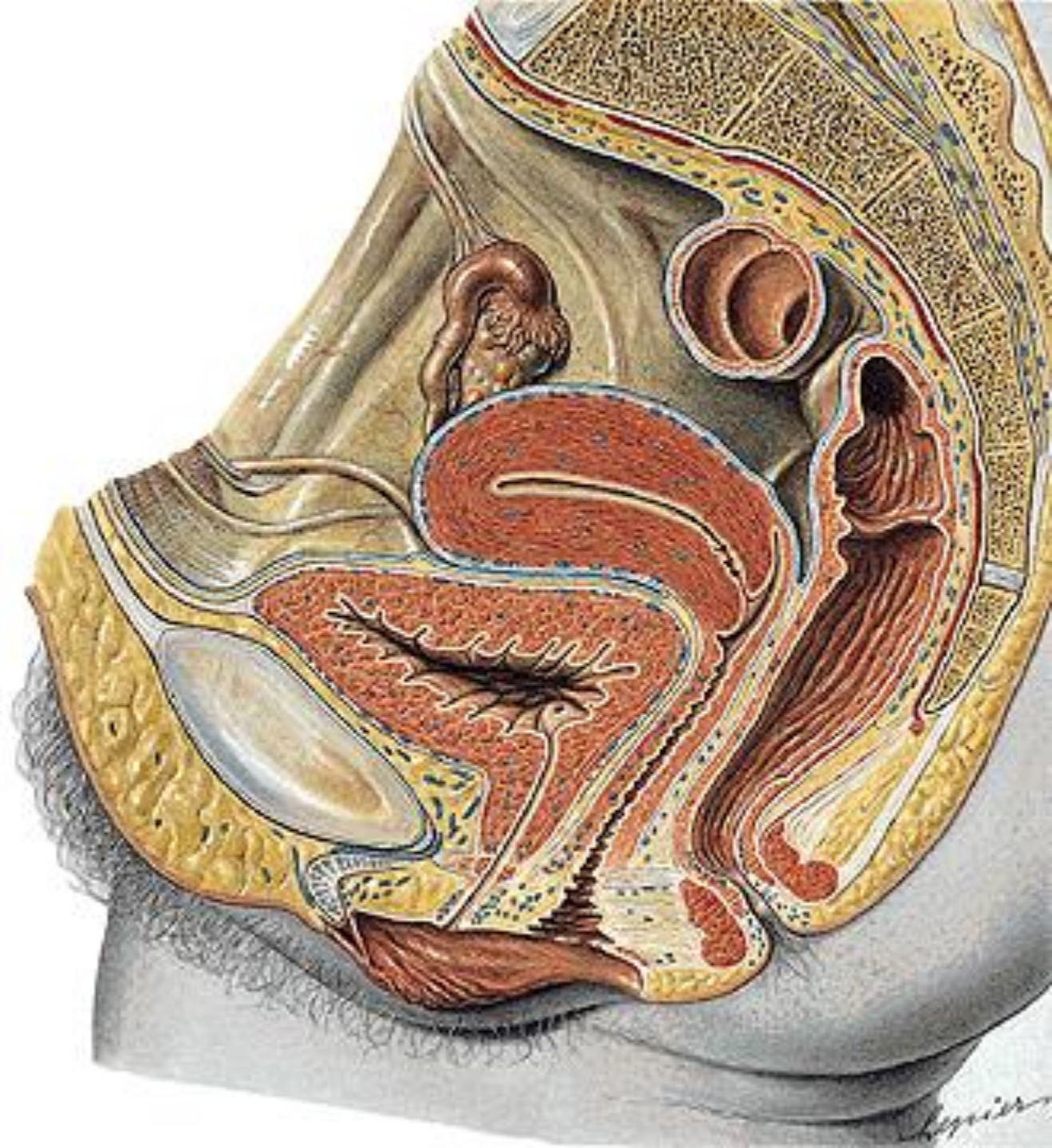
Median section through
the female pelvis

1. Excavatio rectouterina
2. Excavatio vesicouterina



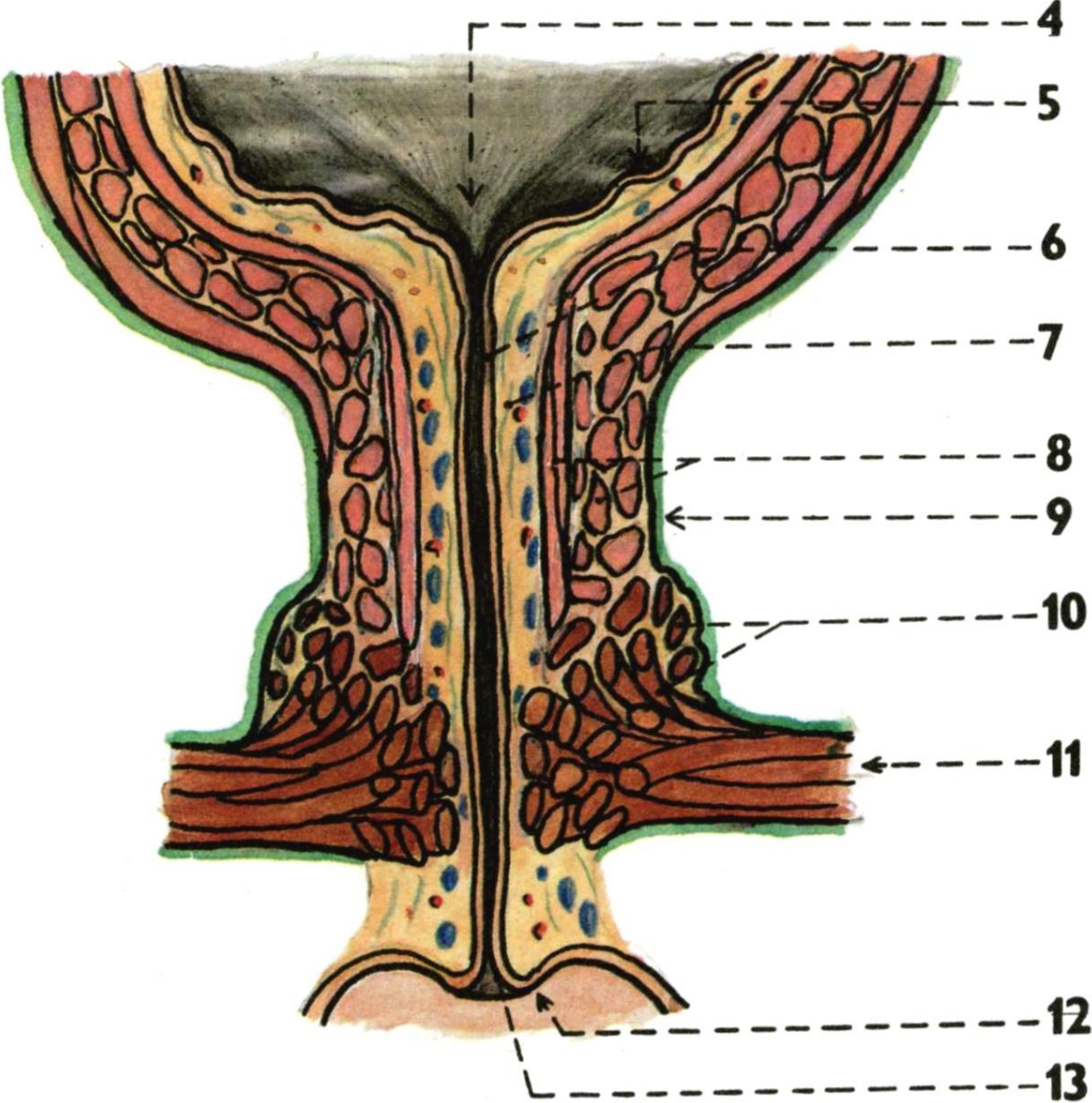
URETHRA FEMININA

- pars intramuralis
- pars pelvina
- pars membranacea
- pars perinealis



URETHRA FEMININA

- Crista urethralis
- Lacunae urethrales
- Glandulae urethrales
- Ductus paraurethrales



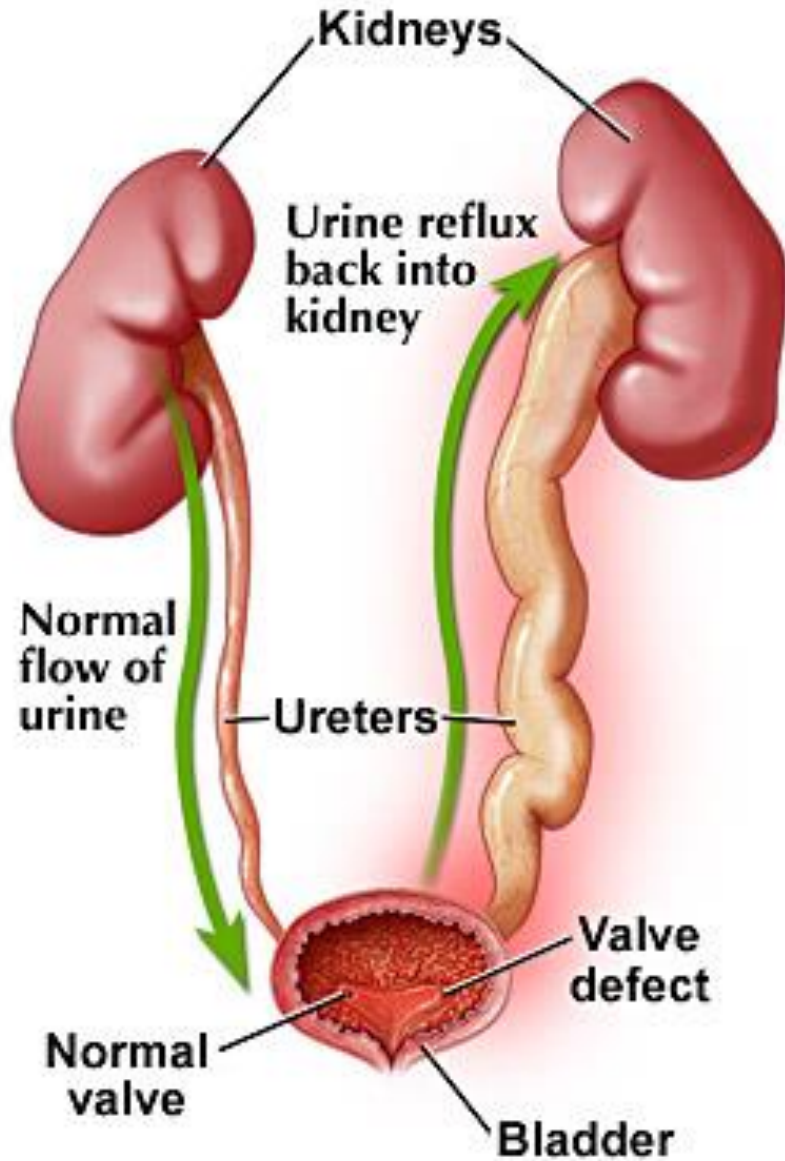
IVU



retrograde pyelography



Vesicoureteral reflux (VUR) – voiding cystourethrogram (VCU)



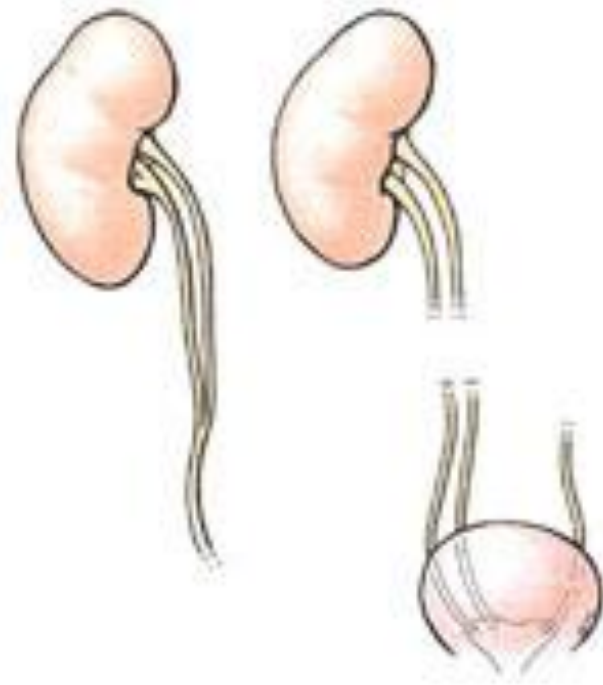


Retrocaval ureter



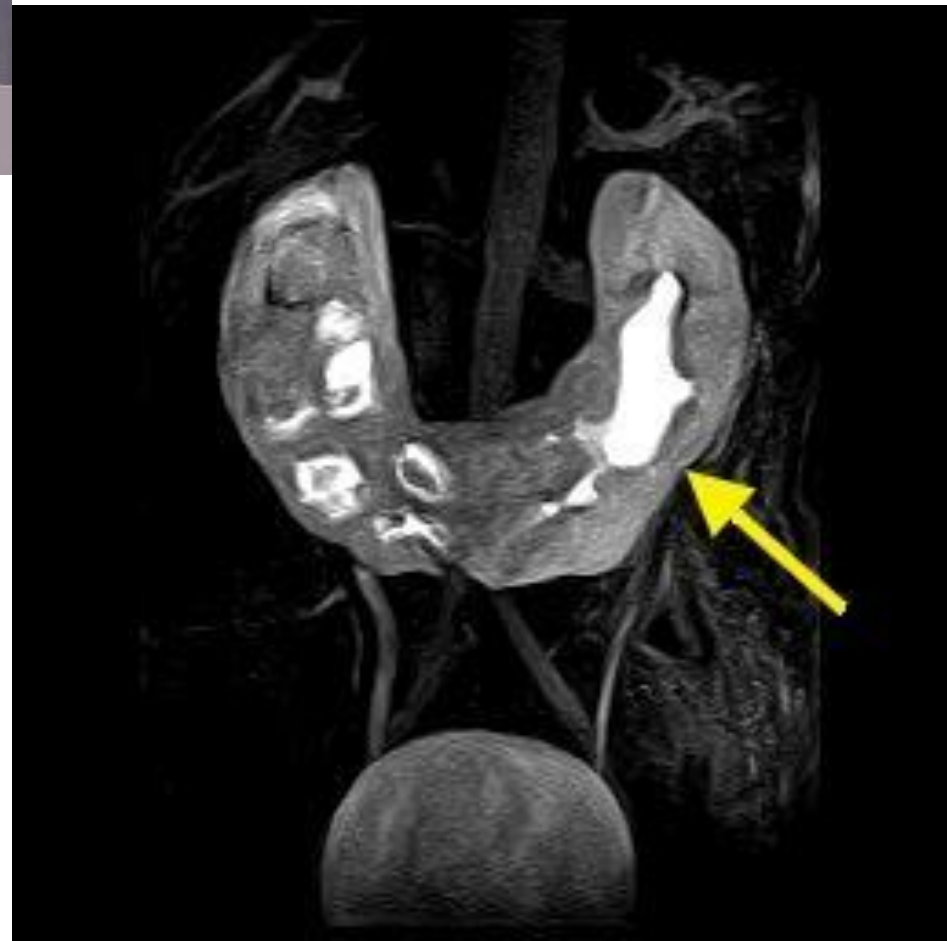


Ureter duplex





Horseshoe kidney



Illustrations 2, 3, 5, 6, 8, 9, 12, 17-24, 26 and 28 were copied from:

Atlas der Anatomie des Menschen/Sobotta.
Putz,R., und Pabst,R. 20. Auflage. München:
Urban & Schwarzenberg, 1993)

Illustrations 4, 7, 10, 11, 13-15, 21, 25, and 27 were copied from:

Čihák R: Anatomie 2 (Splanchnologia). Avicenum,
zdravotnické nakladatelství, Praha, 1988.