

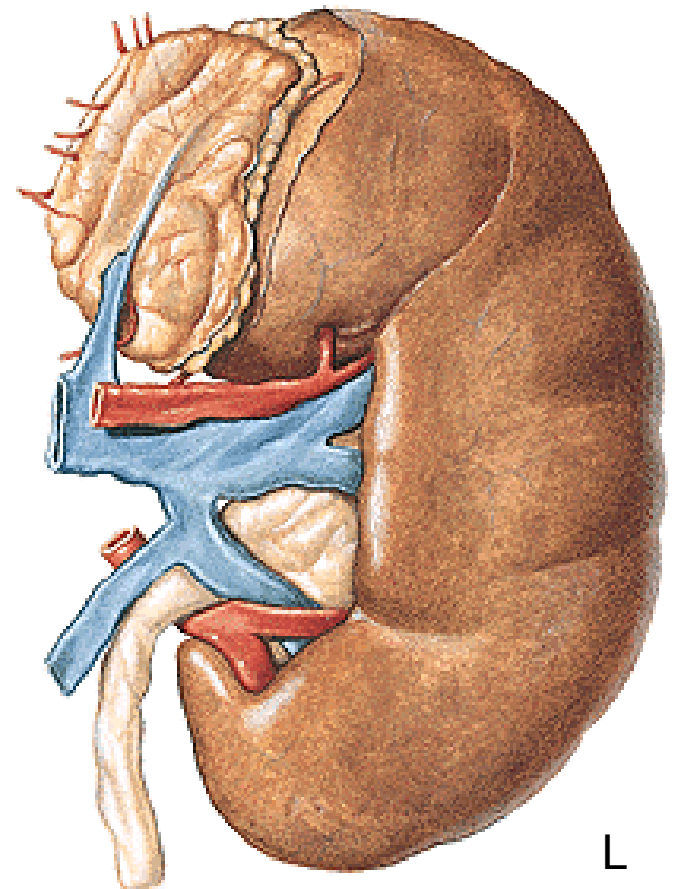
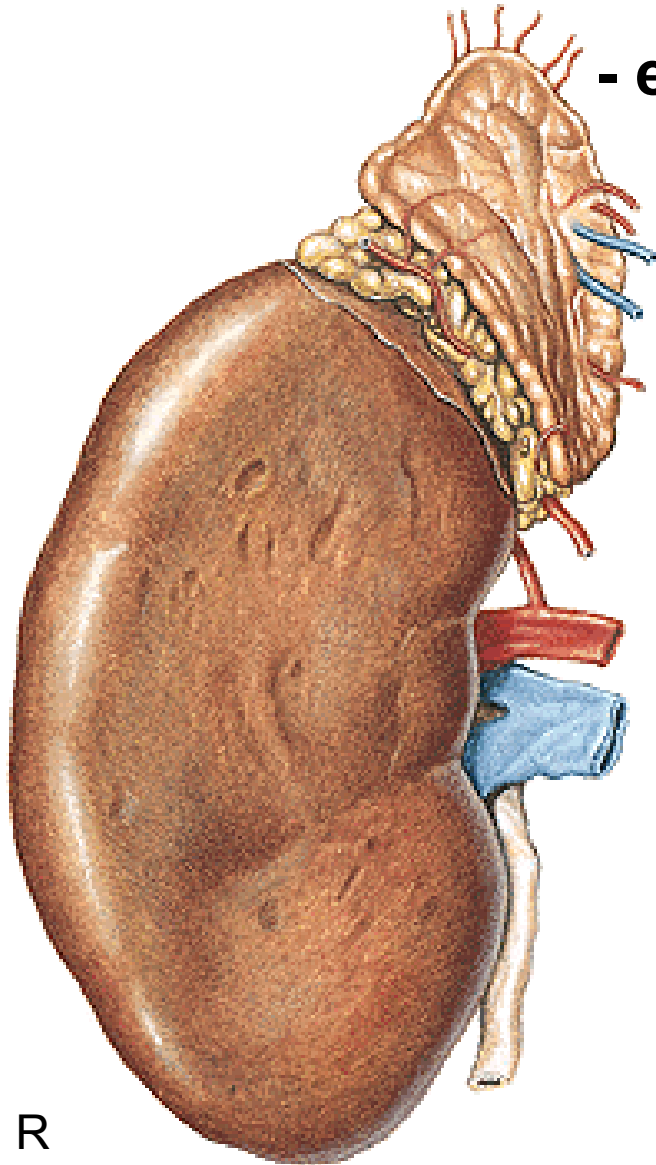
URINARY SYSTEM

REN, NEPHROS - facies anterior et posterior

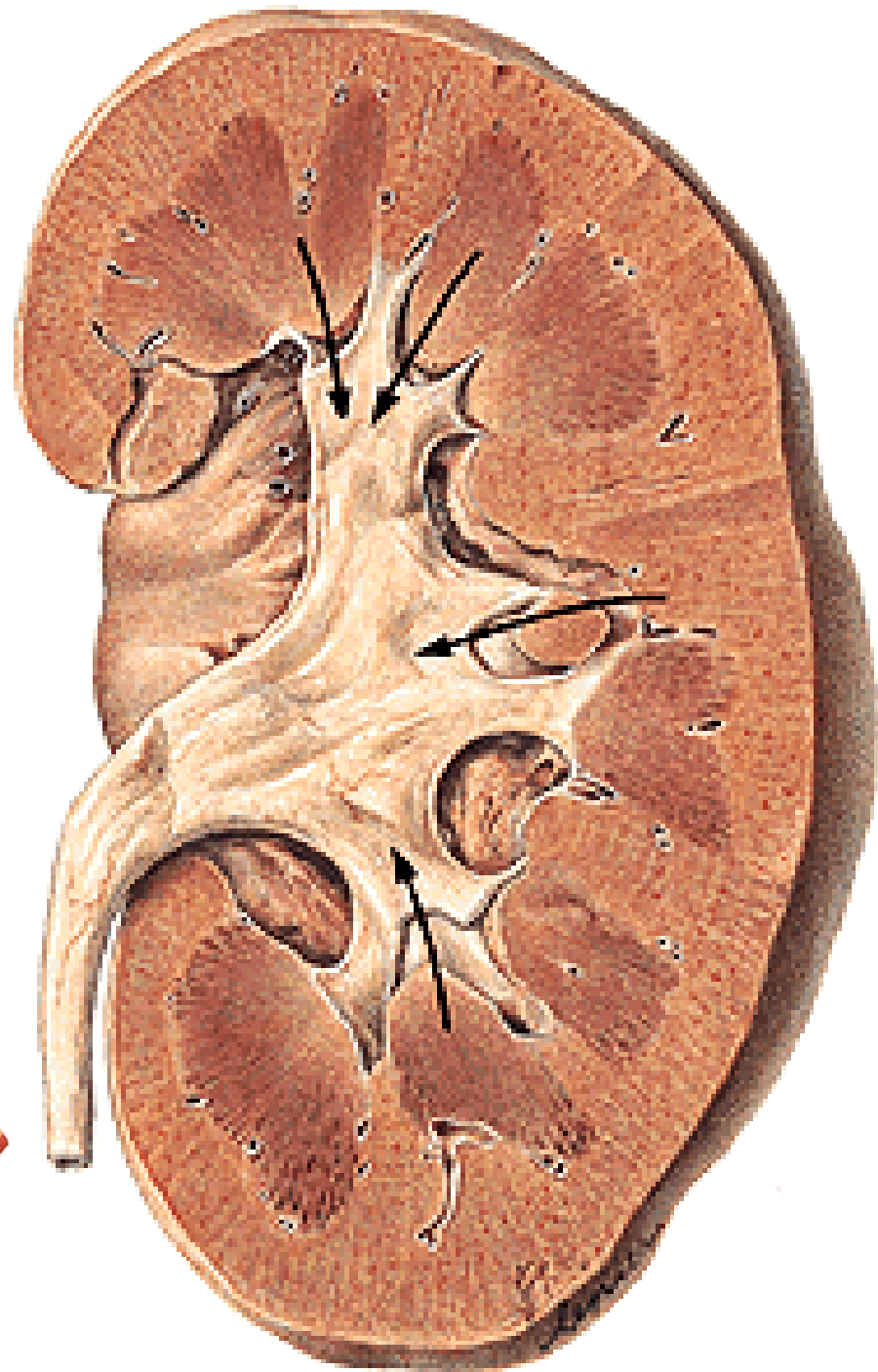
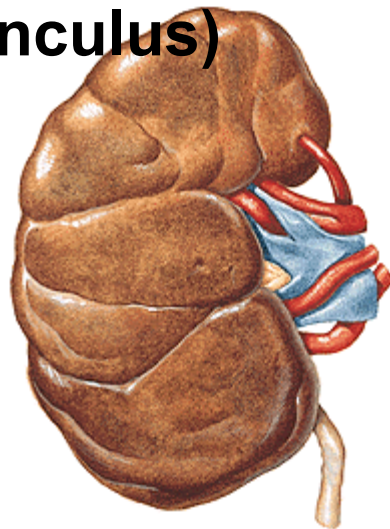
- margo lateralis et medialis - hilum renale

- sinus renalis

- extremitas superior et inferior



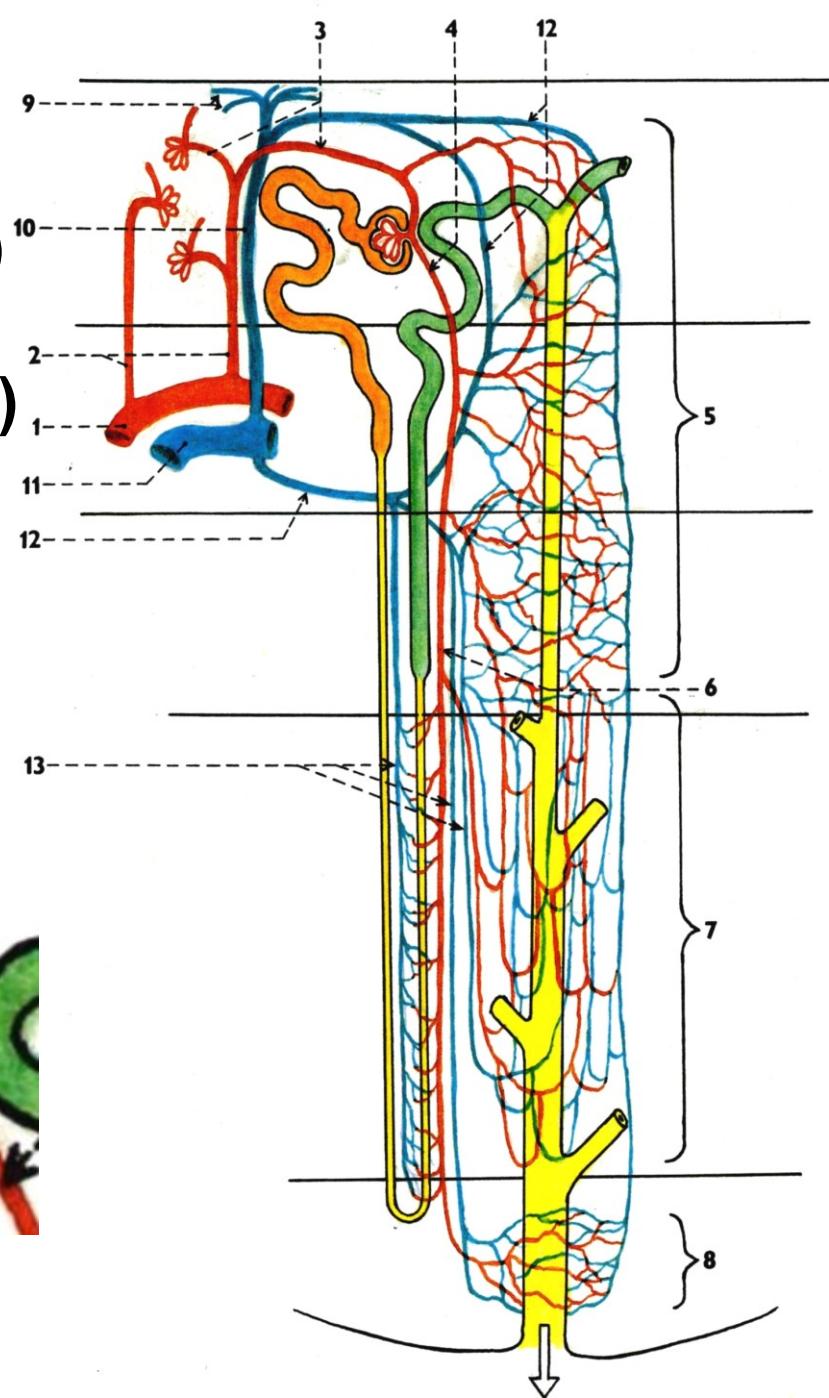
Capsula fibrosa
Cortex renalis
Medulla renalis
– 6-20 pyramides renales
Columnae renales
Pars radiata corticis
Papilla renalis
Ductus papillares
Foramina papillaria
Area cribrosa
Sinus renalis
Lobus renalis (Renculus)
Renculi-marking
(renculization)



NEPHRON

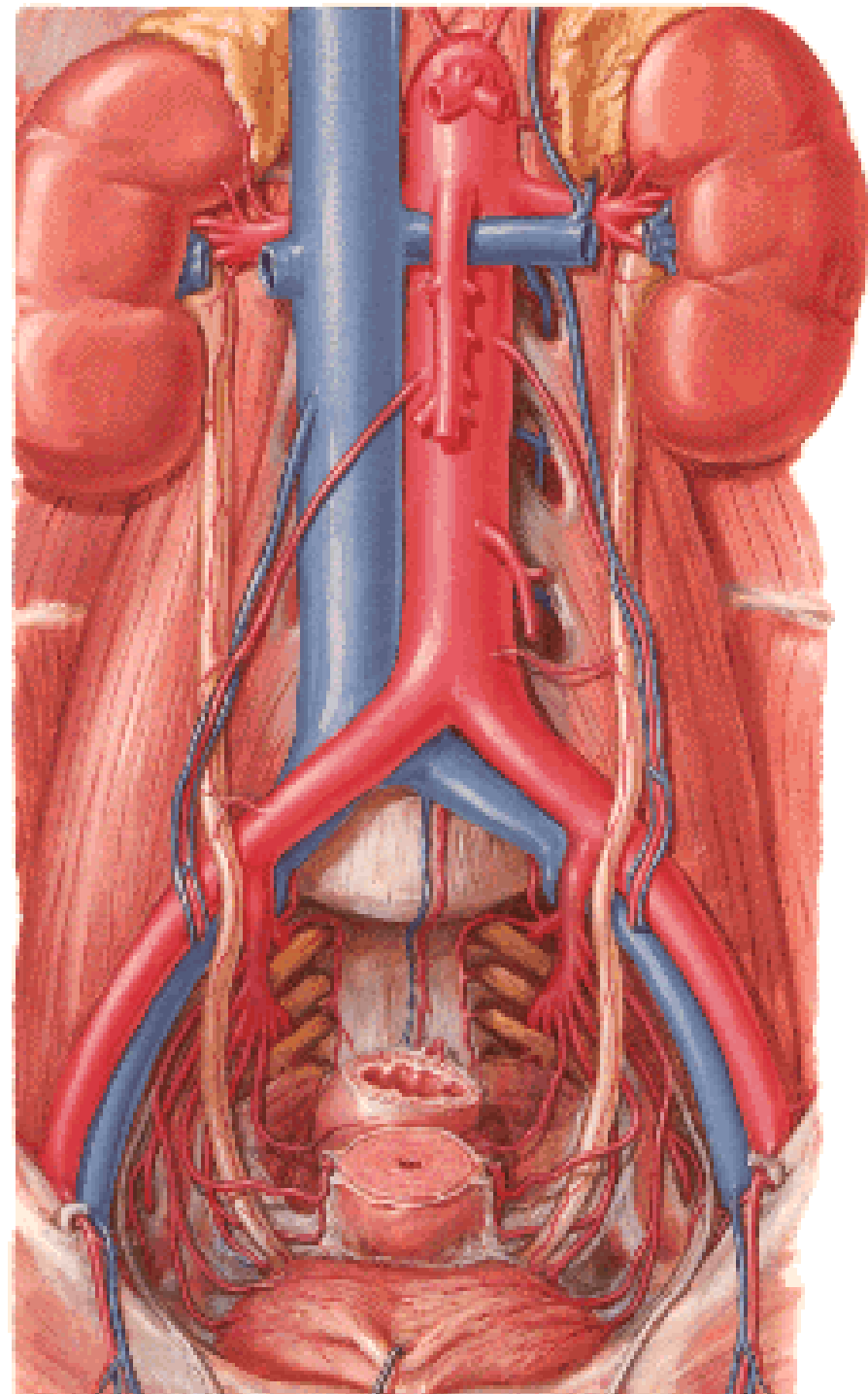
- Corpusculum renale (Malpighi)
 - Glomerulus
 - Capsula glomeruli (Bowman)
- Tubulus proximalis
- Henle's loop
- Tubulus distalis

Tubulus colligens
Ductus papillaris
Foramen papillare



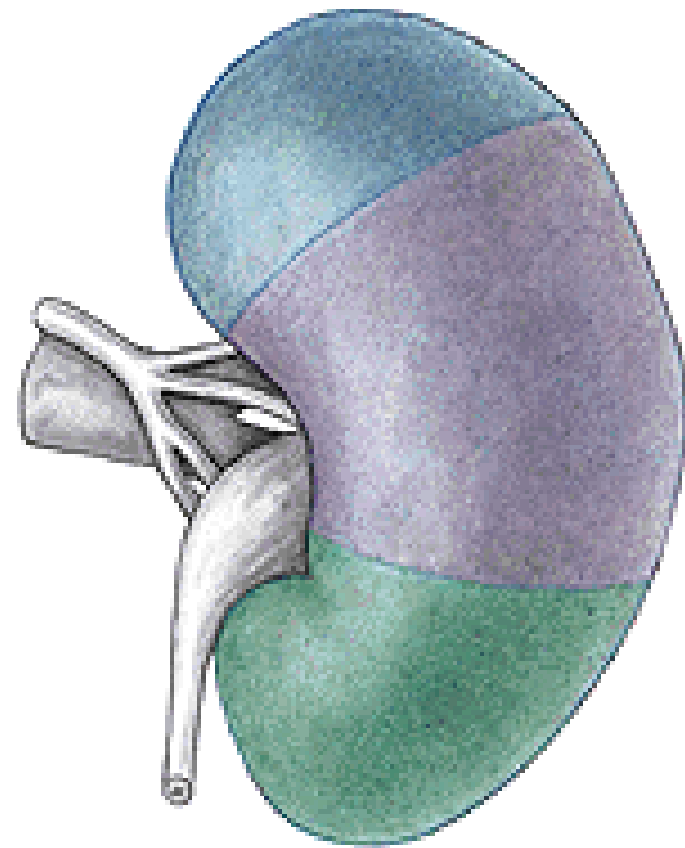
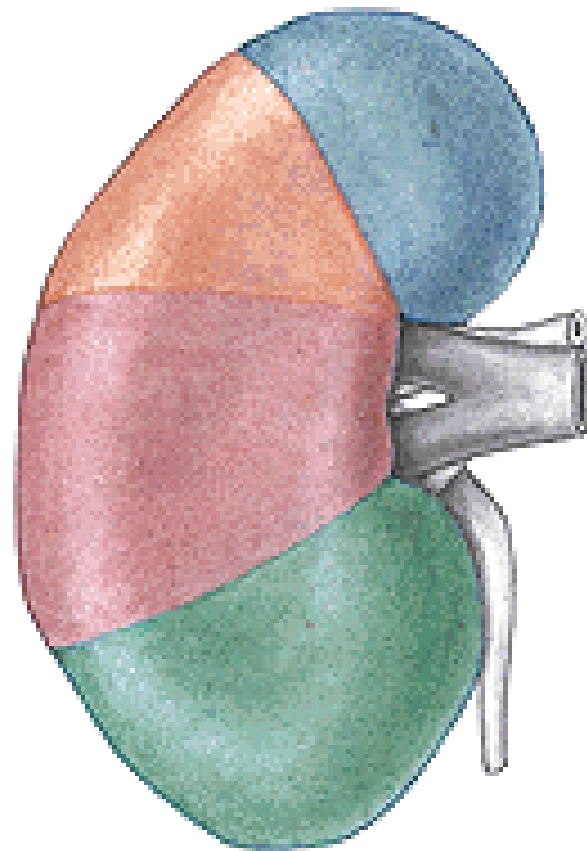
A. renalis

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



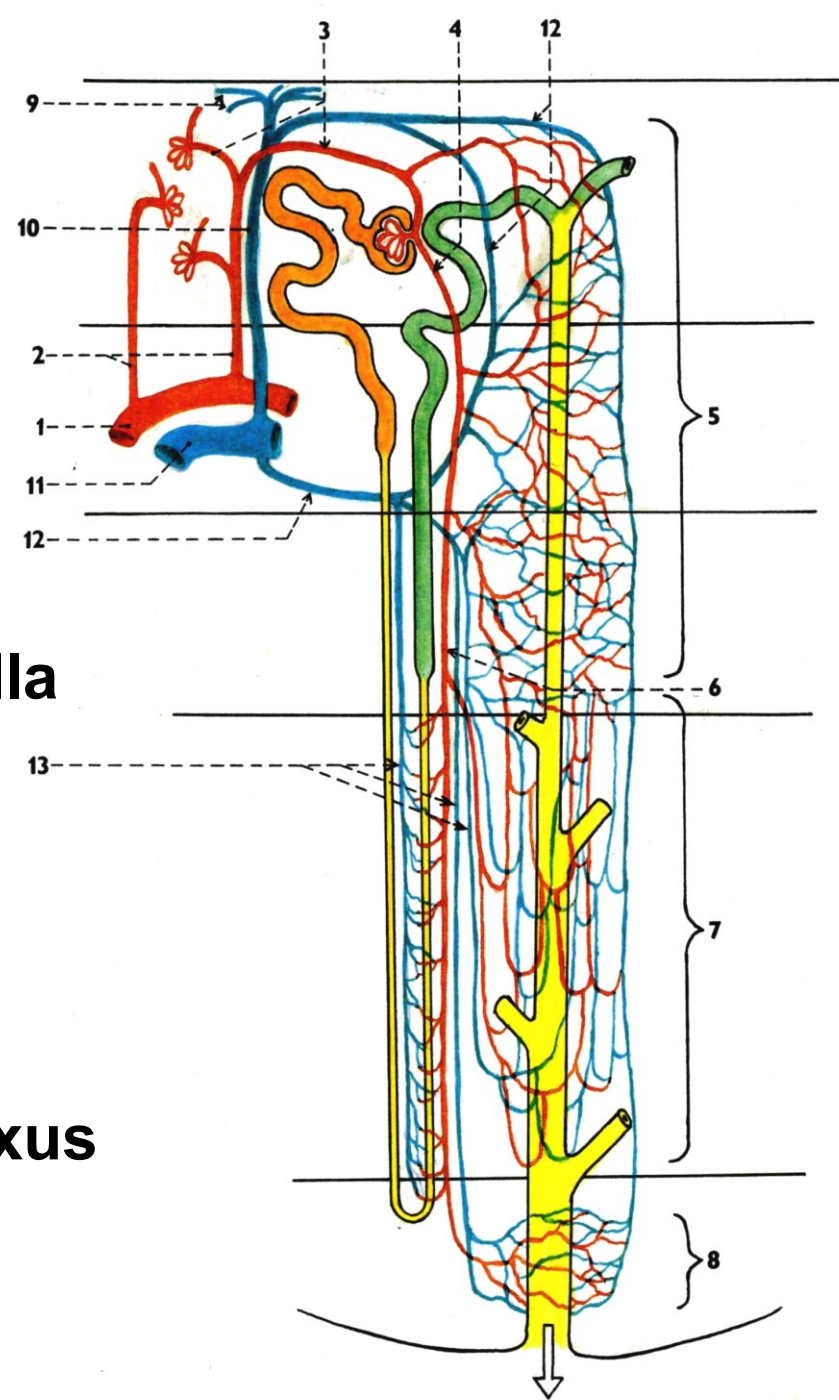
Segmenta renalia – s. superius

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

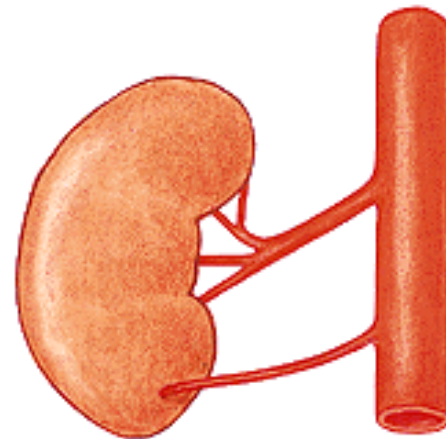
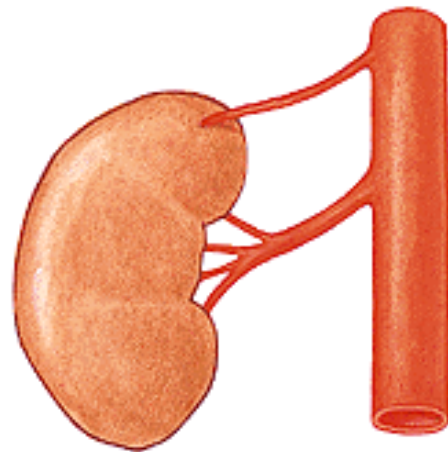
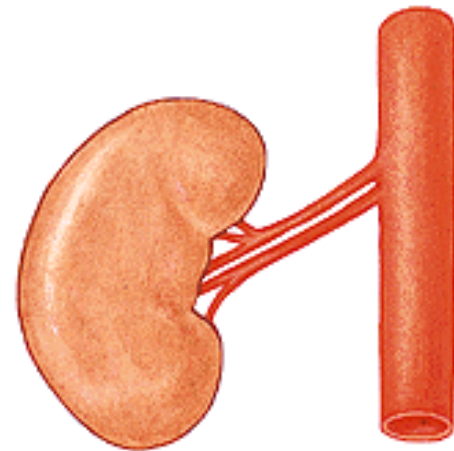
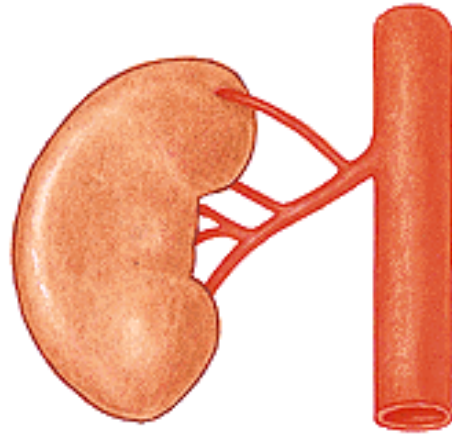


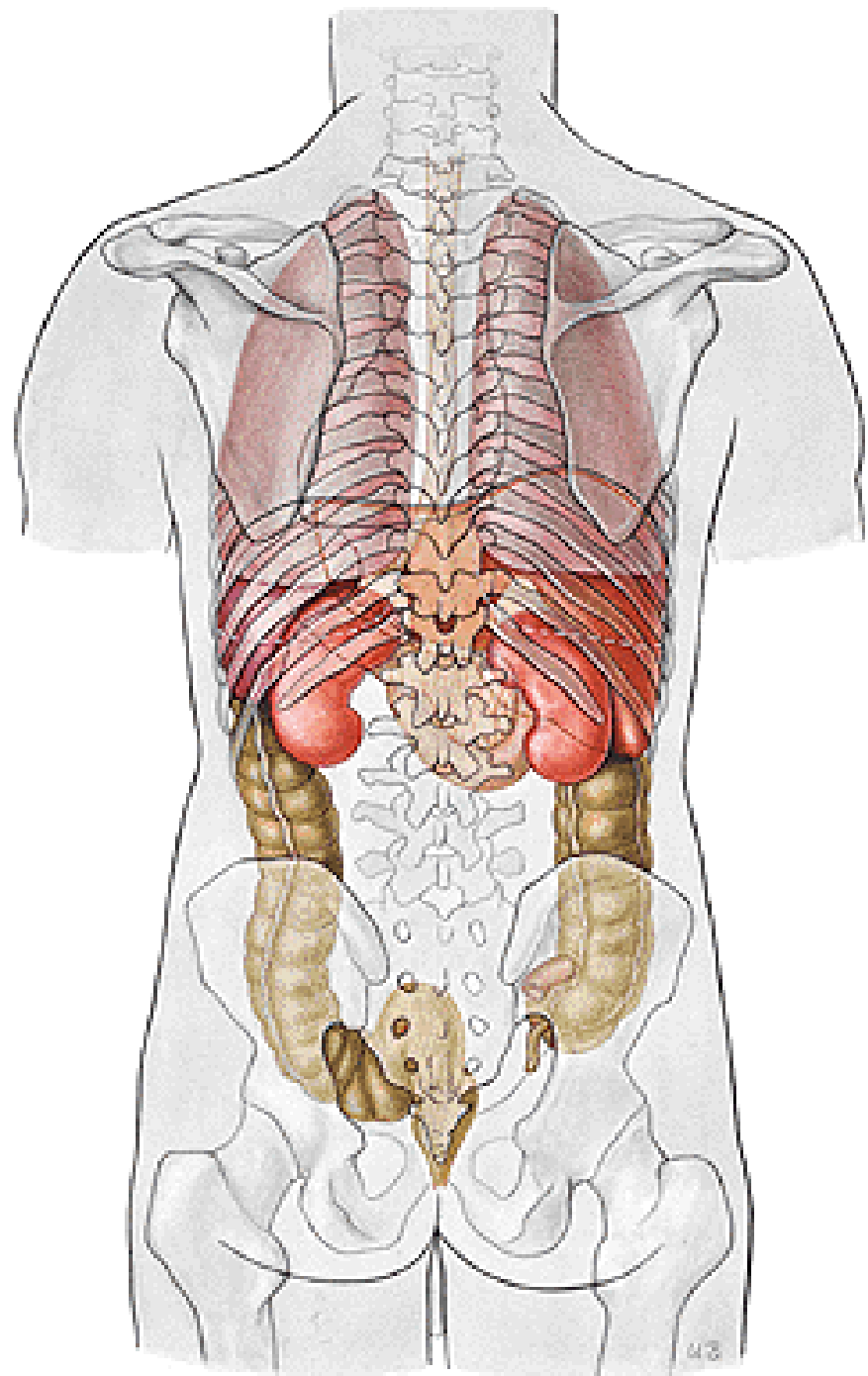
Aa. interlobares:

- 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**



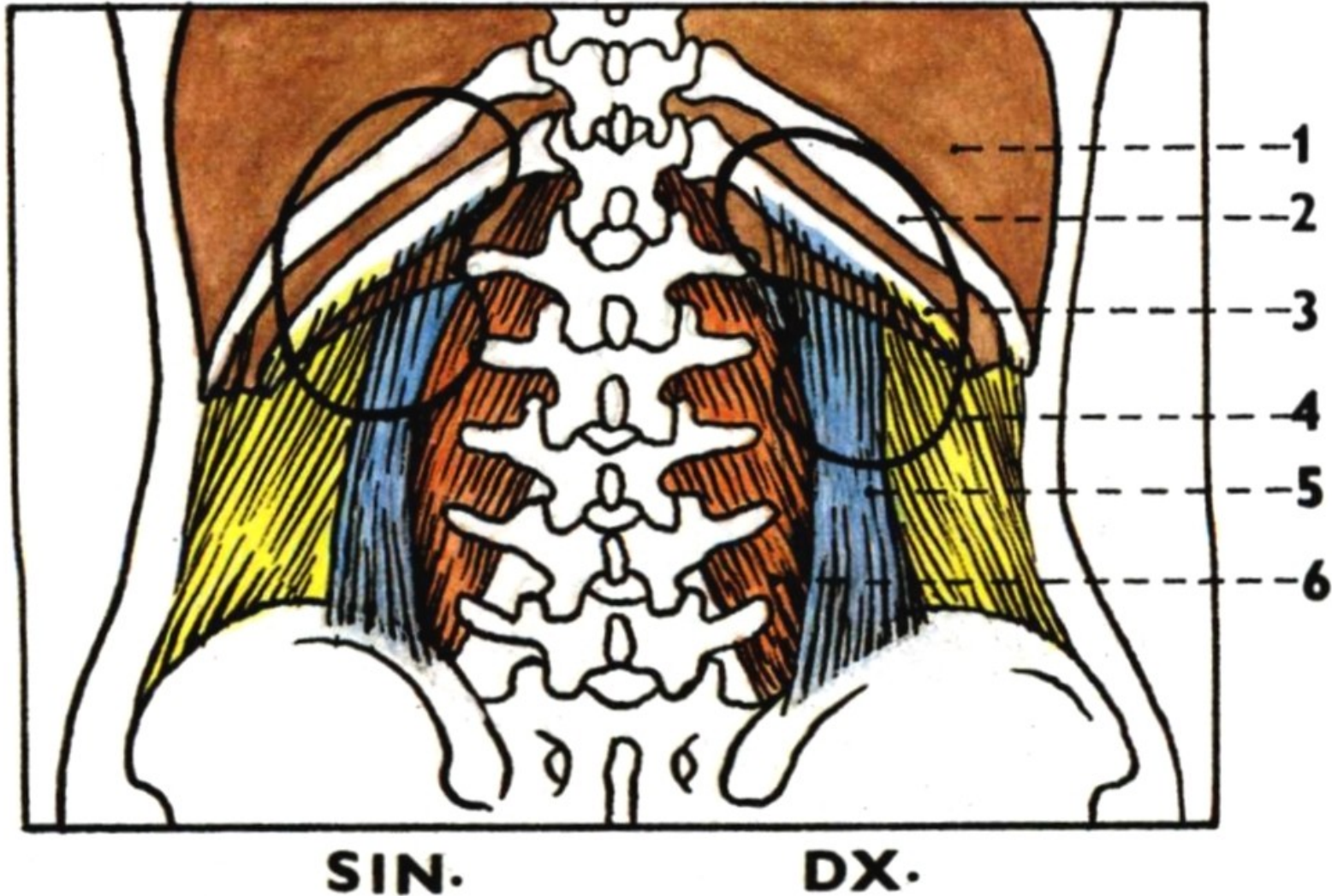
Aa. renales accessoriae

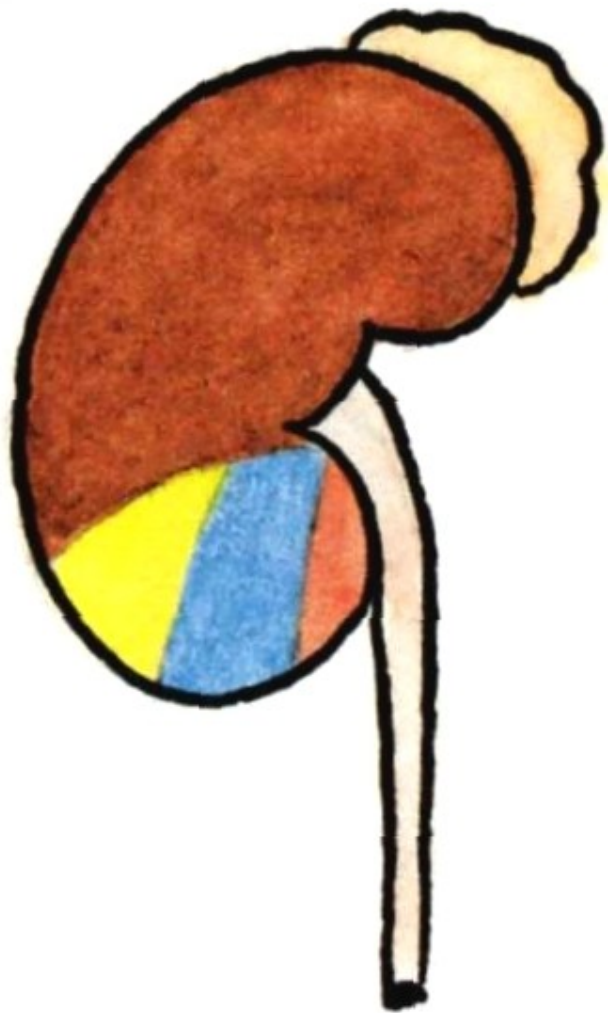




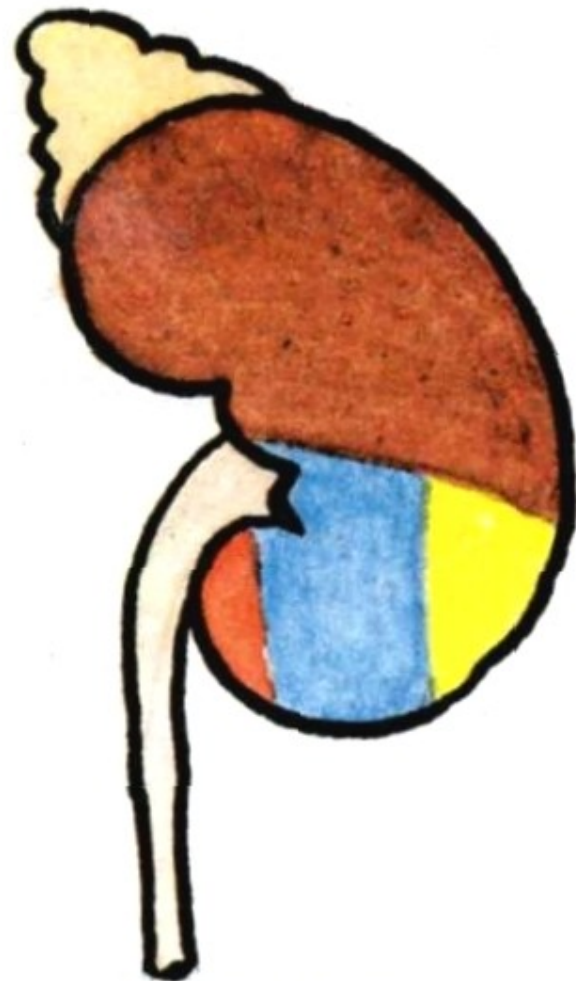
1. Diaphragma
2. 11th rib
3. 12th rib

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



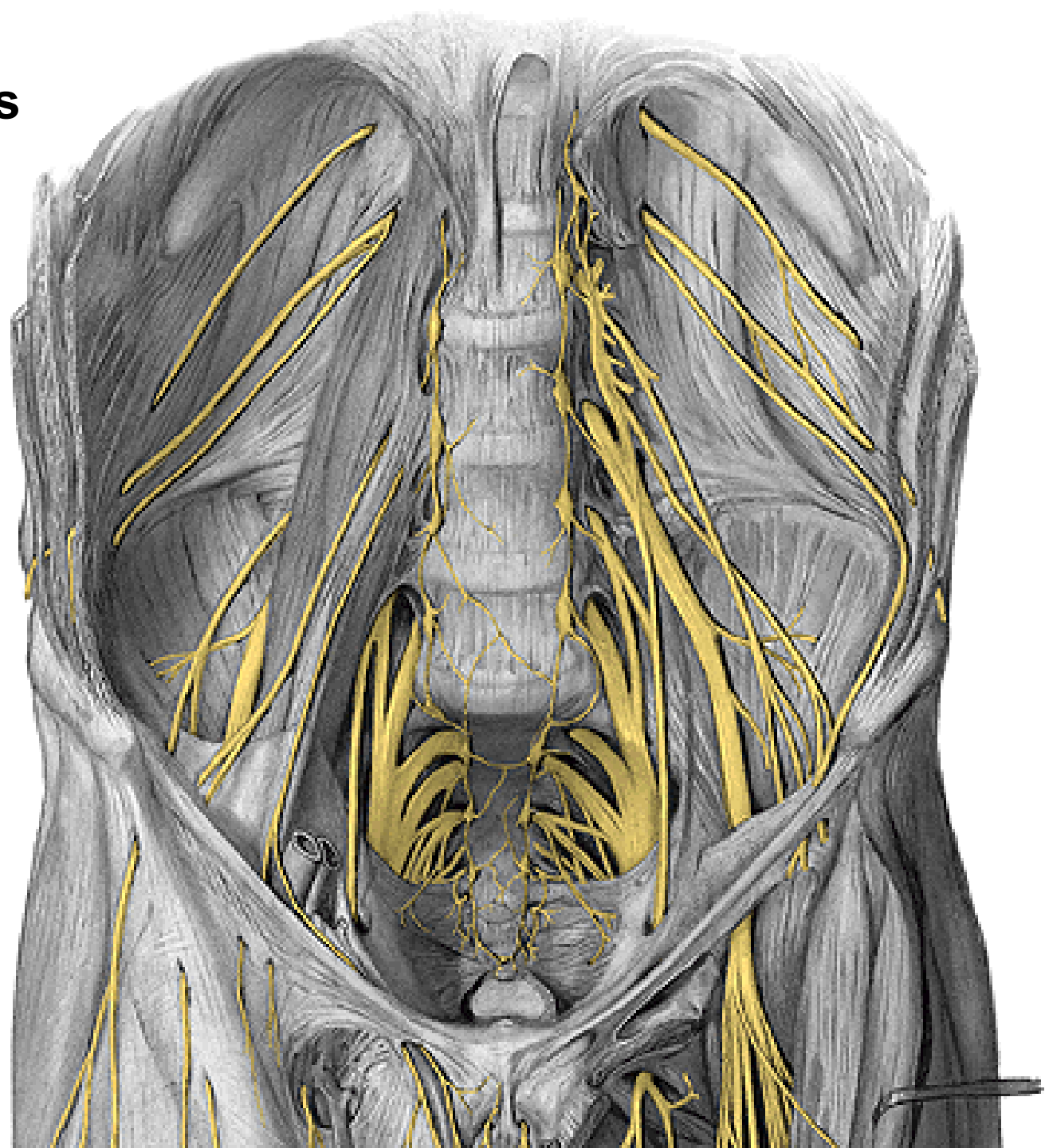


SIN.

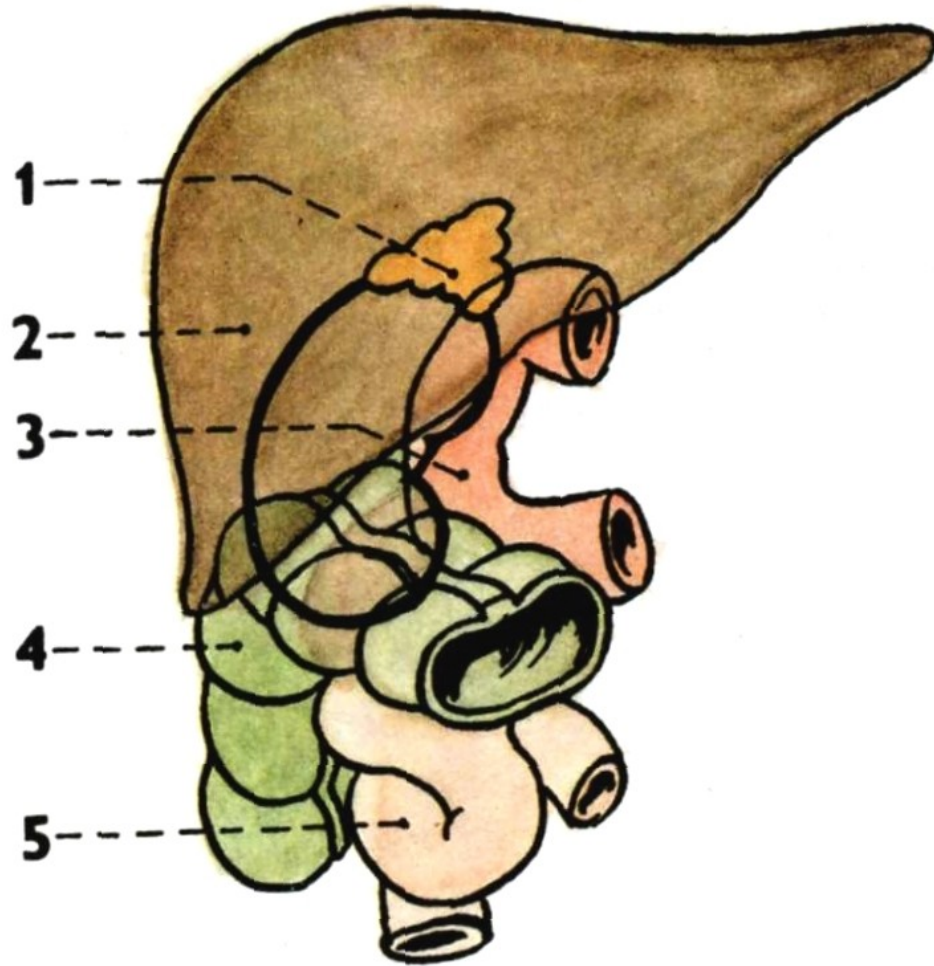


DX.

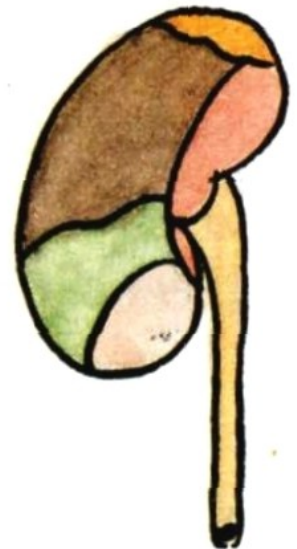
N. subcostalis
N. iliohypogastricus
N. ilioinguinalis



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

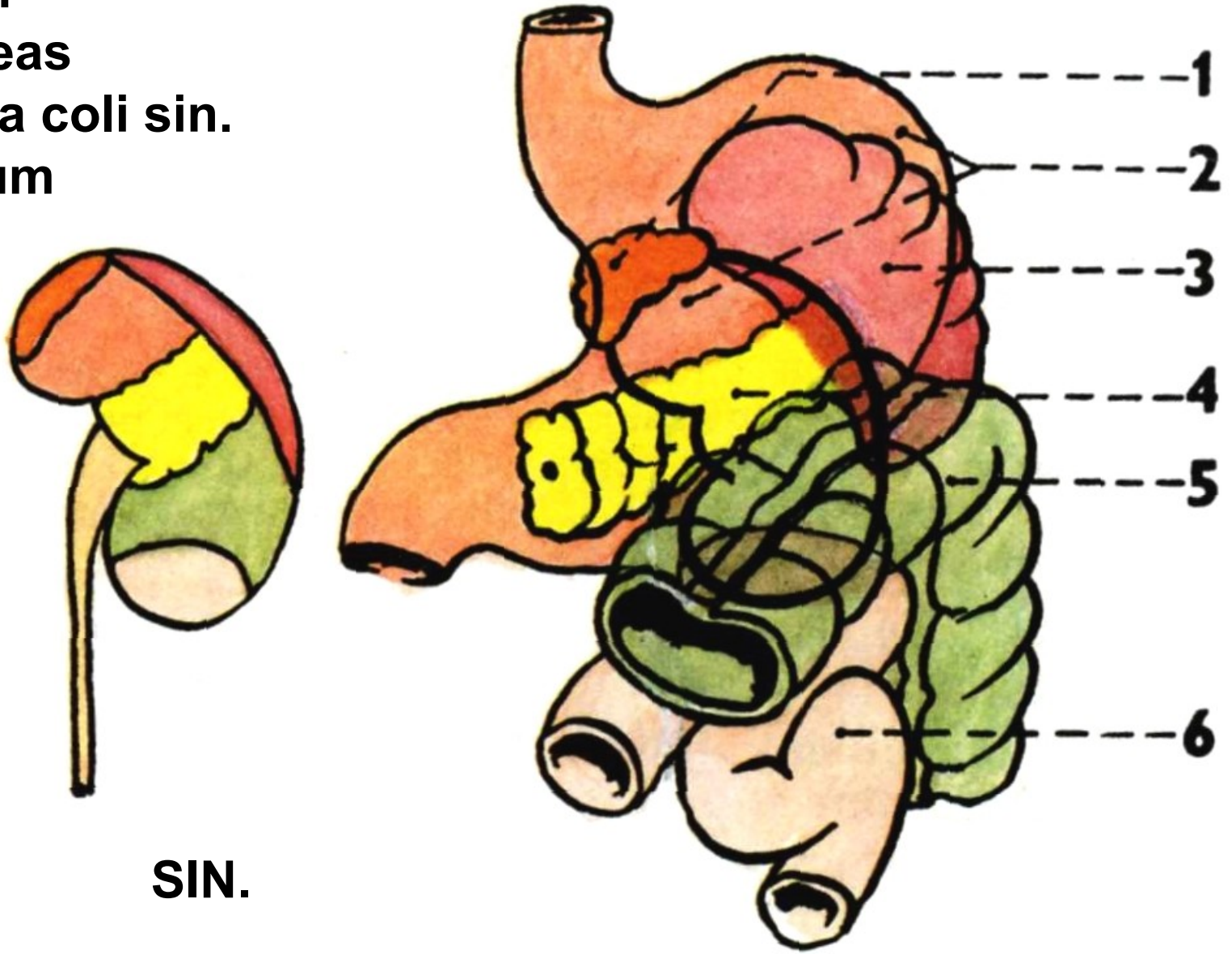


DX.



DX.

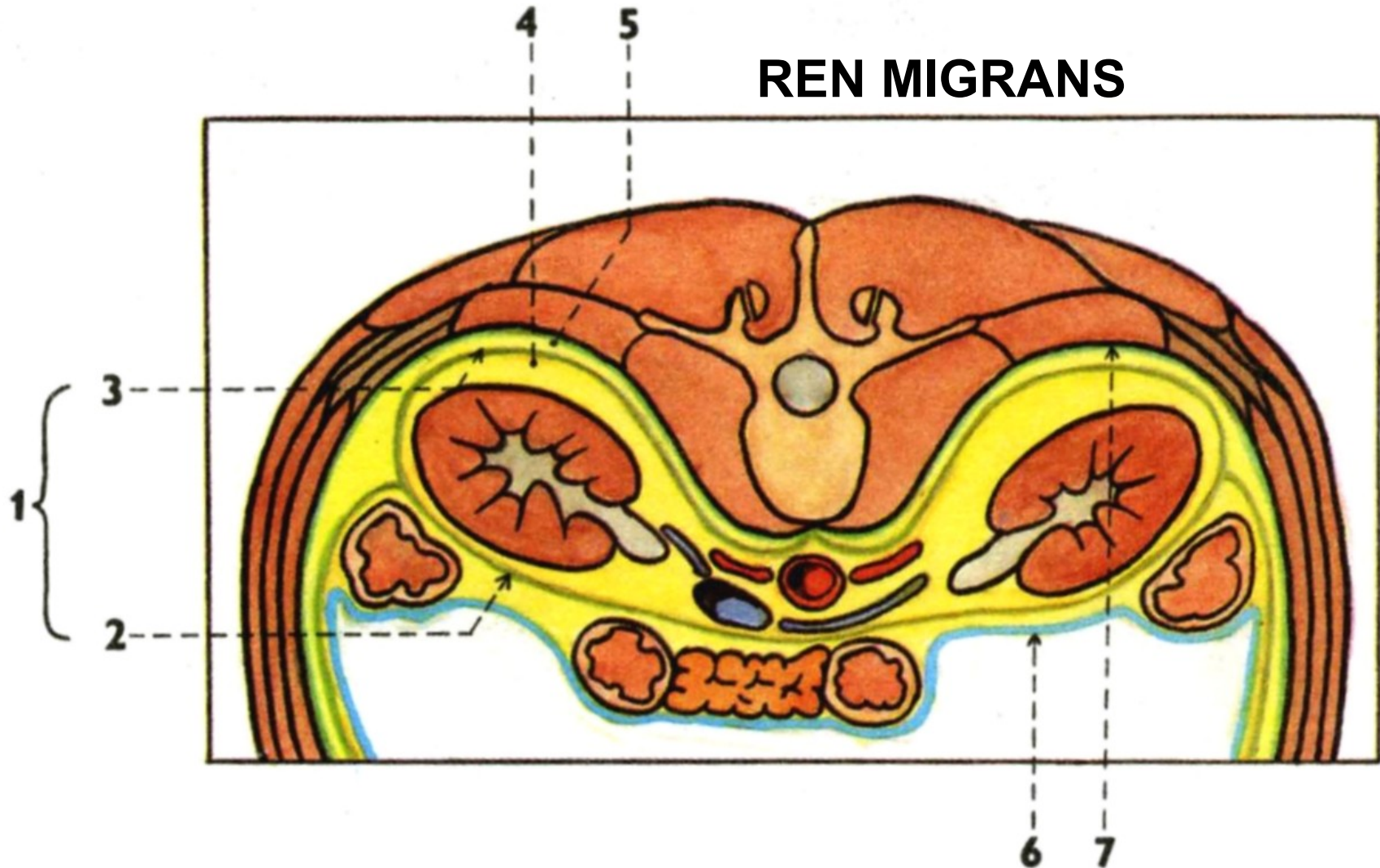
1. Gl. suprarenalis sin.
2. Stomach
3. Spleen
4. Pancreas
5. Flexura coli sin.
6. Jejunum



SIN.

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

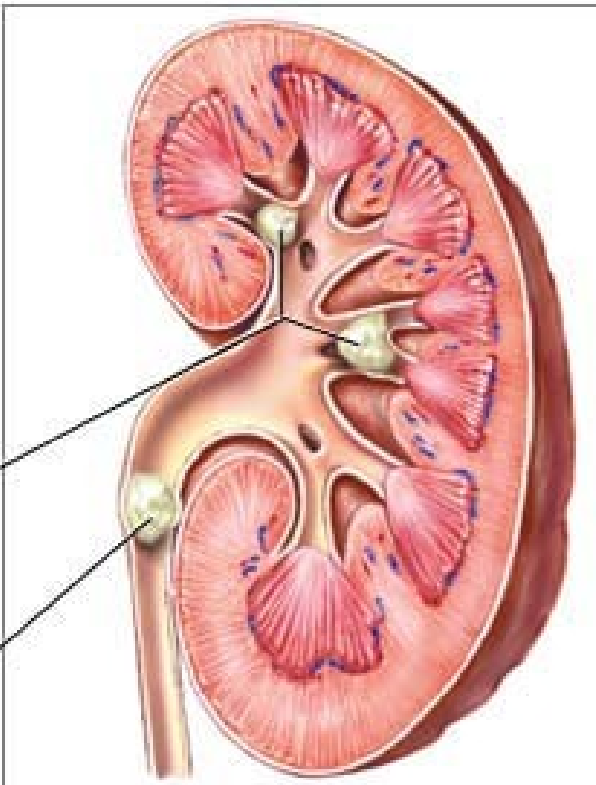
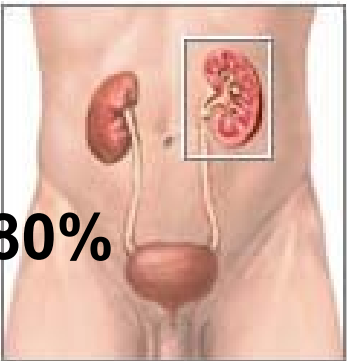
5. Corpus adiposum pararenale
6. Peritoneum
7. Fascia transversalis



Nephrolithiasis

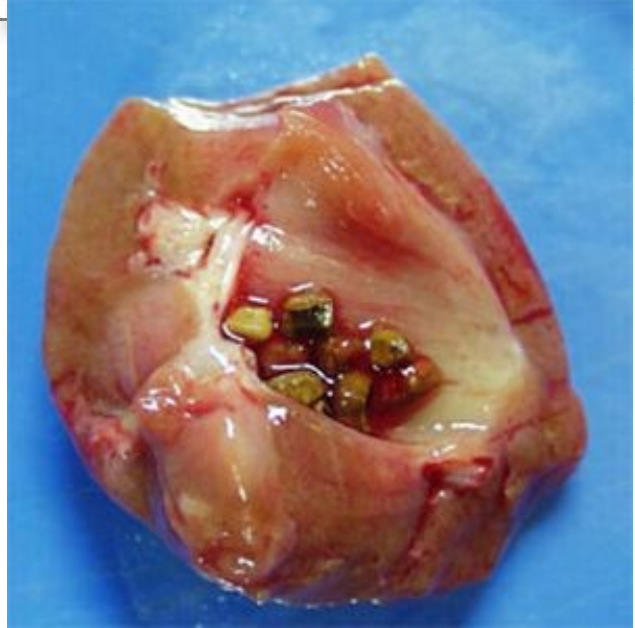
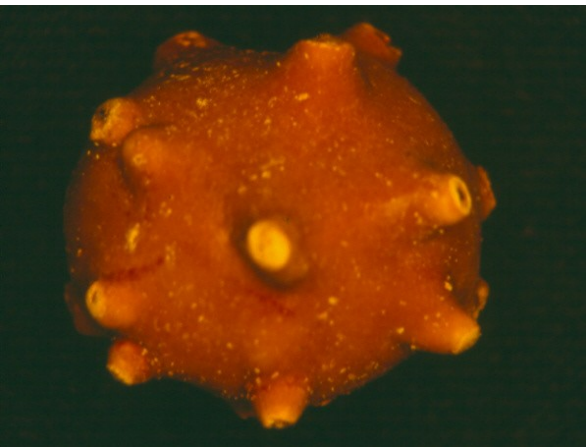
Calcium oxalate crystals - 80%

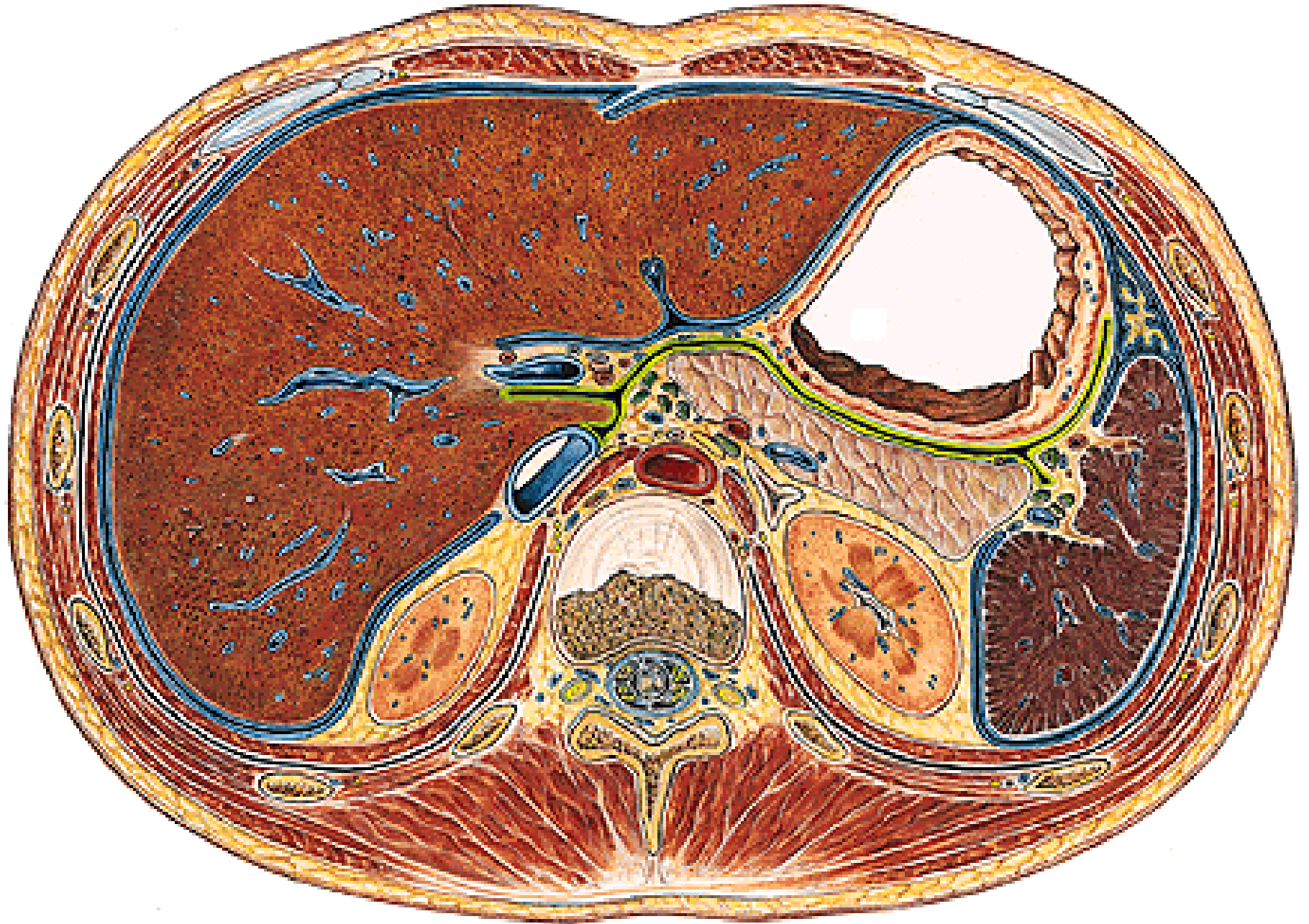
Uric acid - 5 - 10%



Kidney stones in the minor and major calyces of the kidney

Kidney stone in the ureter





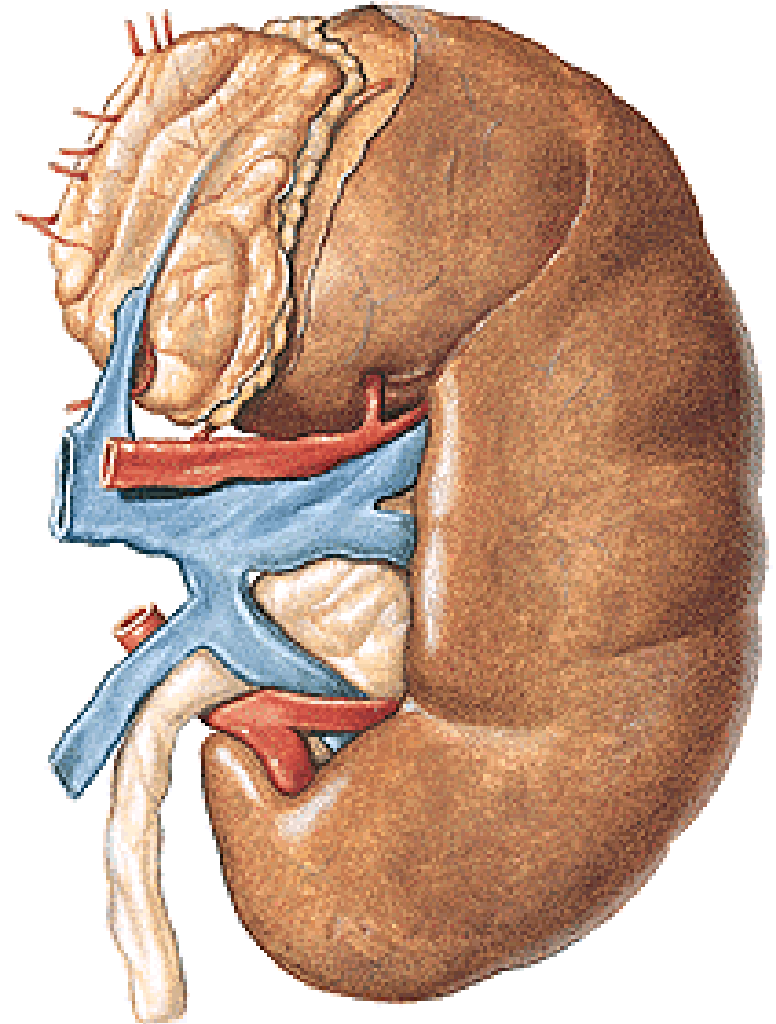
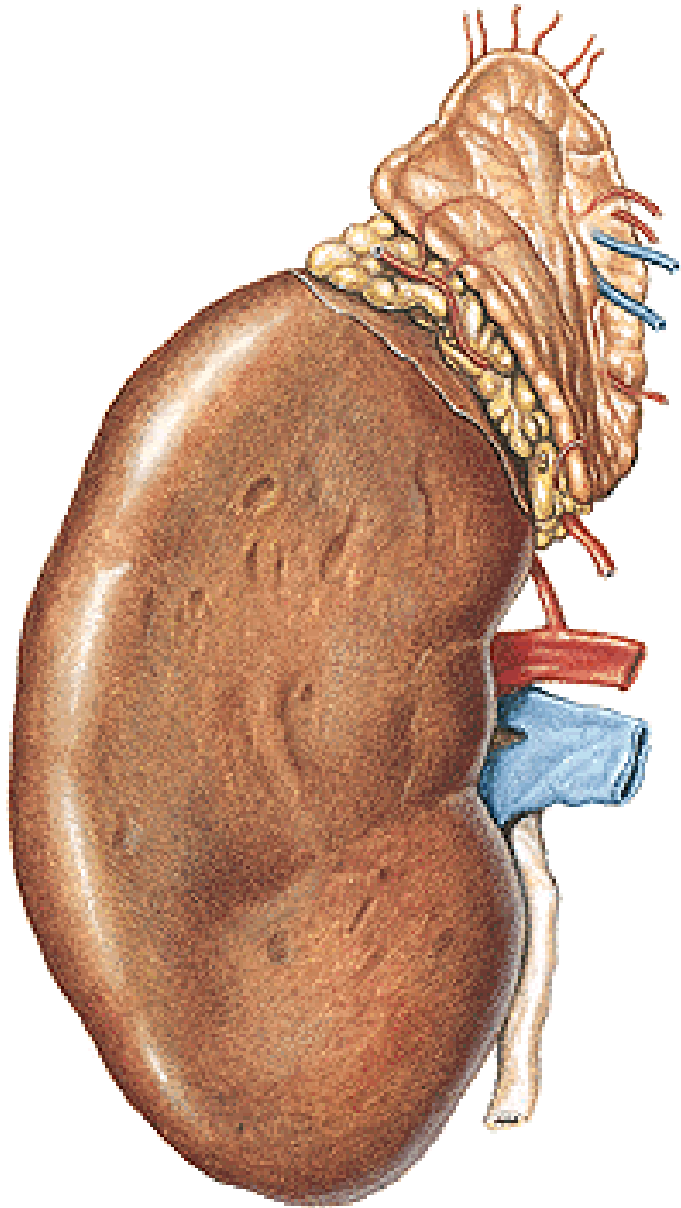
Transverse section through the intervertebral disc between T12 and L1

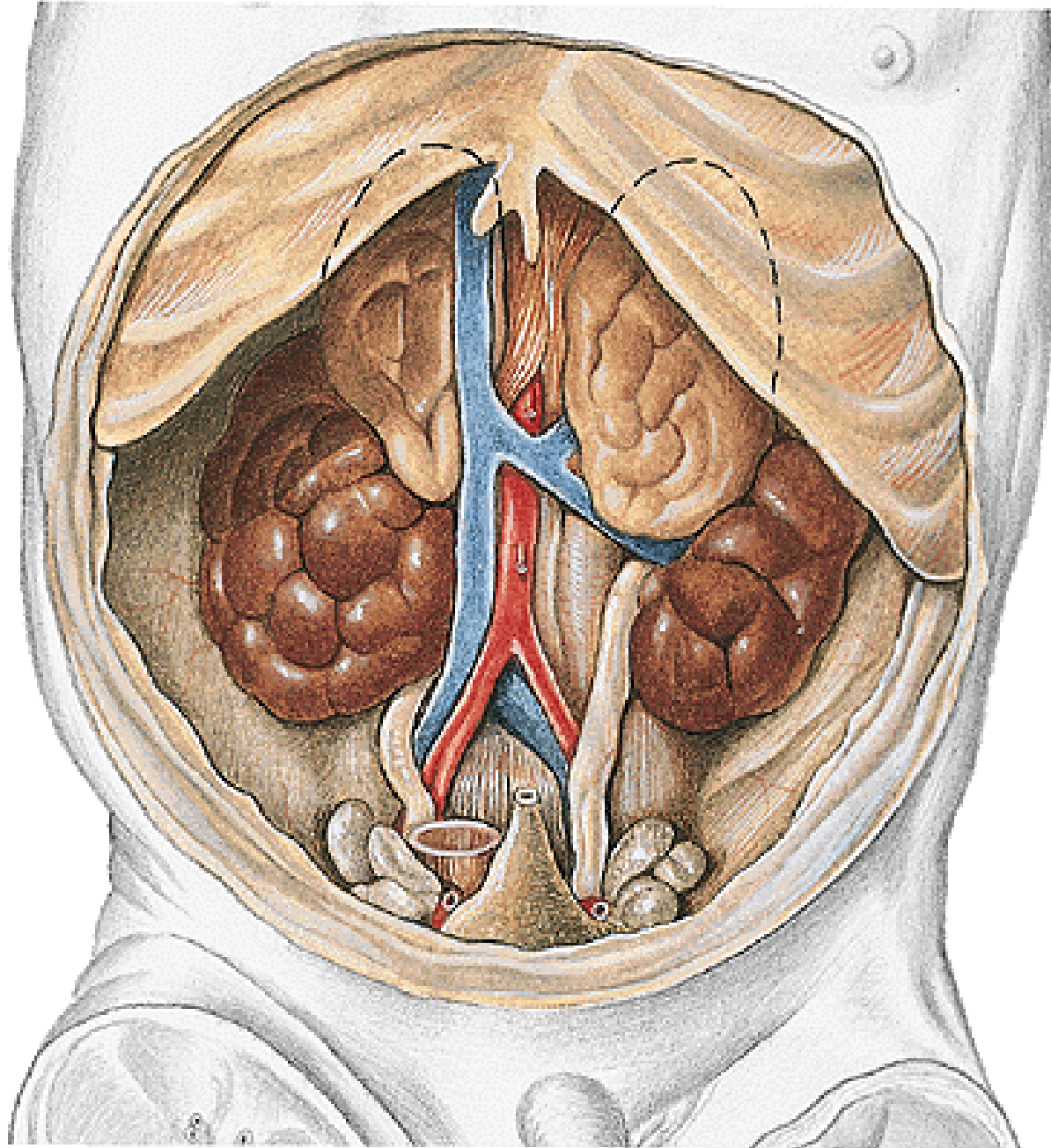


Cross-sectional image through the L1 obtained with CT

GLANDULA SUPRARENALIS – facies anterior – hilum
- facies posterior
- facies renalis

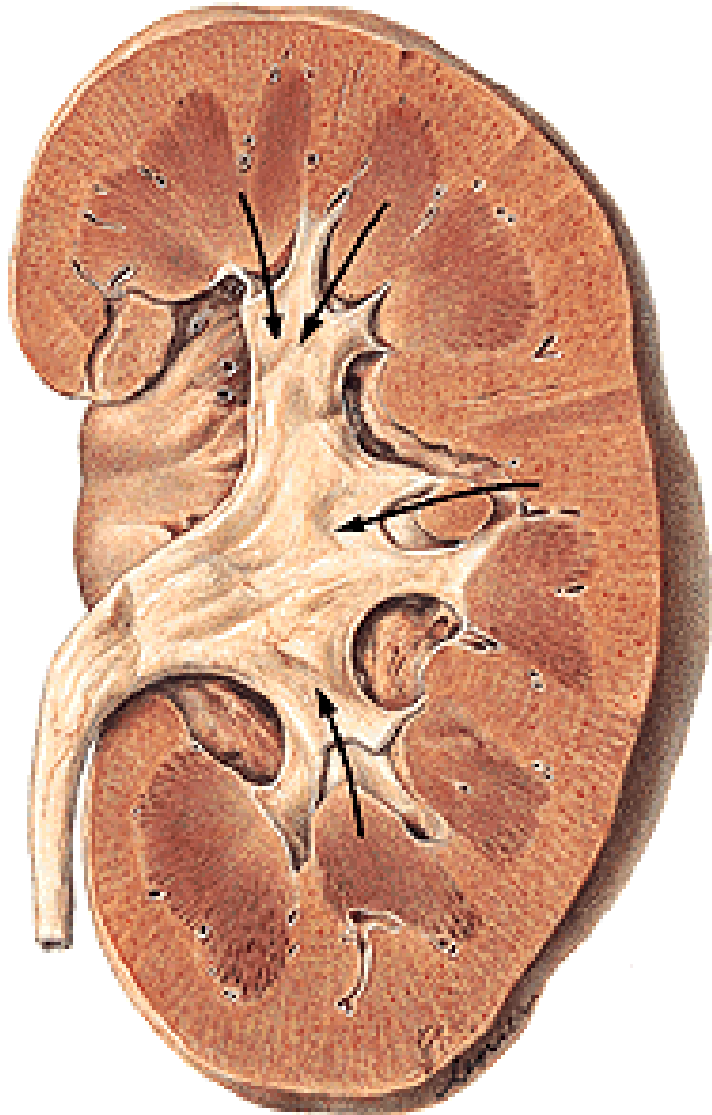
Cortex
Medulla





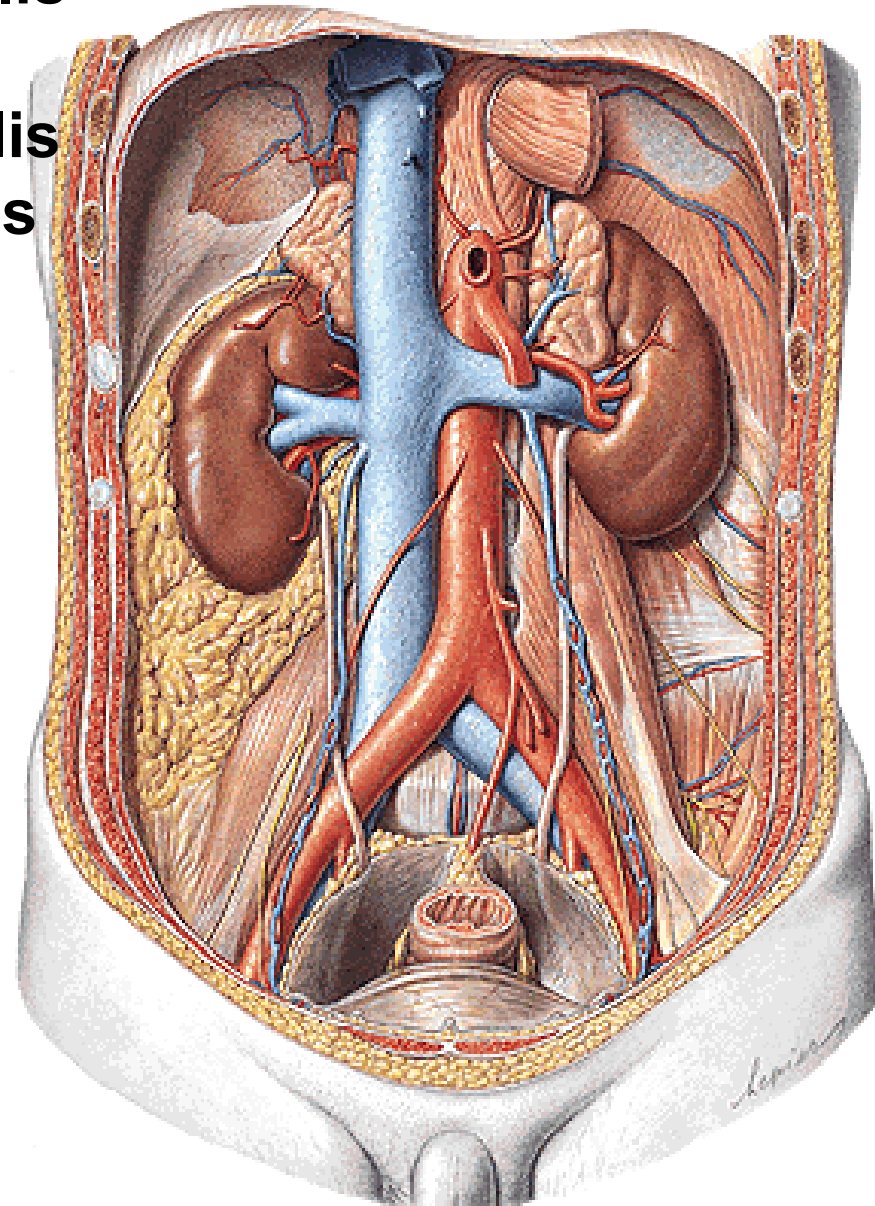
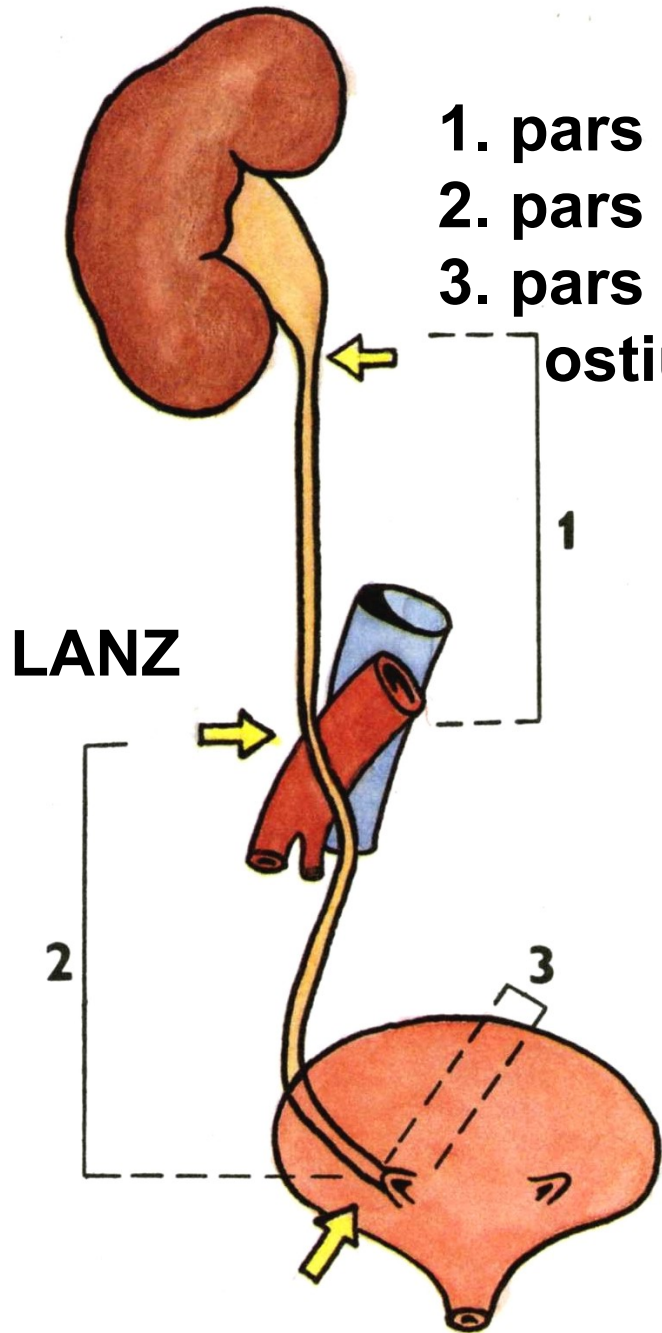
Five-month old fetus

CALICES RENALES – minores et majores PELVIS RENALIS



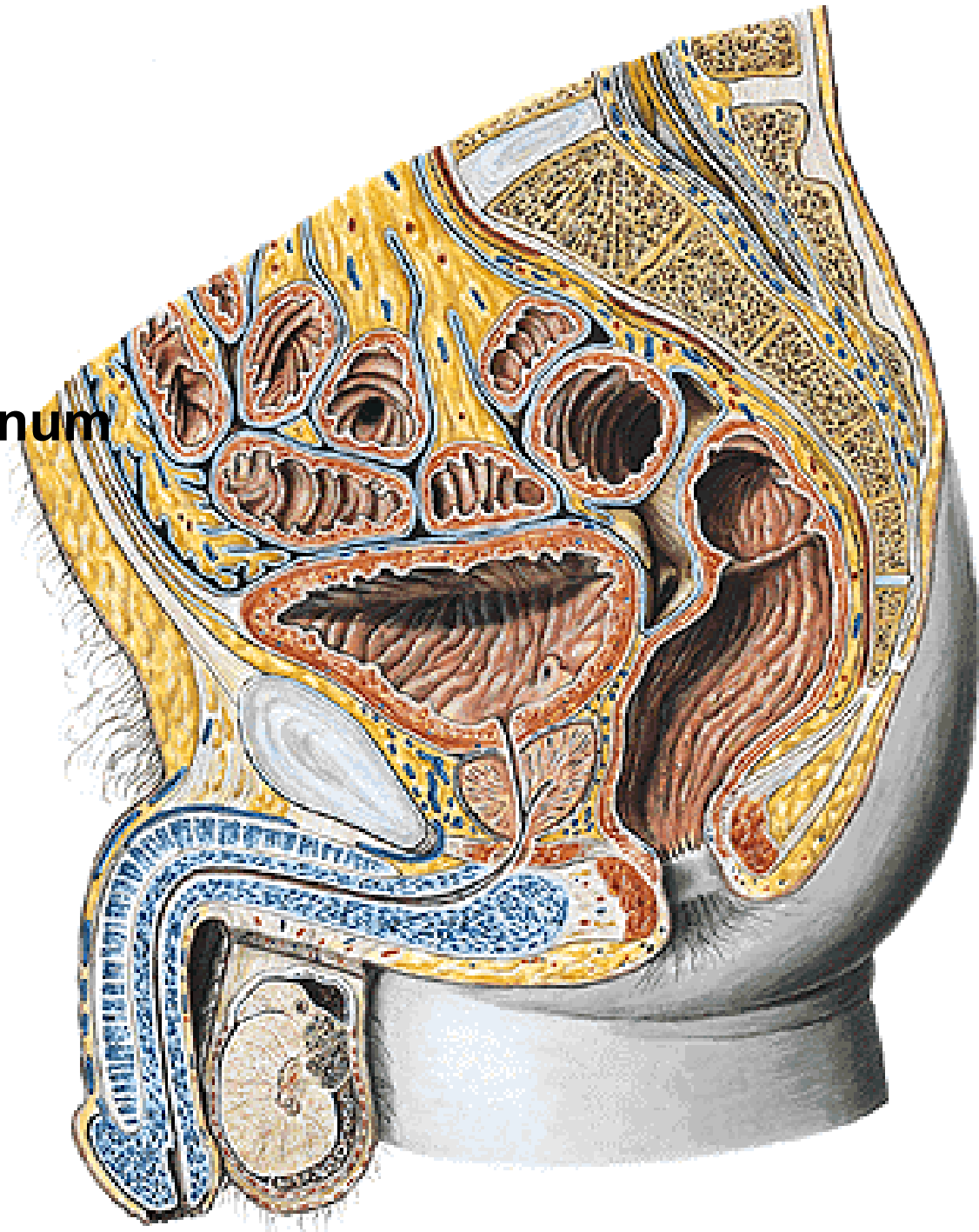
URETER

1. pars abdominalis
2. pars pelvina
3. pars intramuralis
ostium ureteris



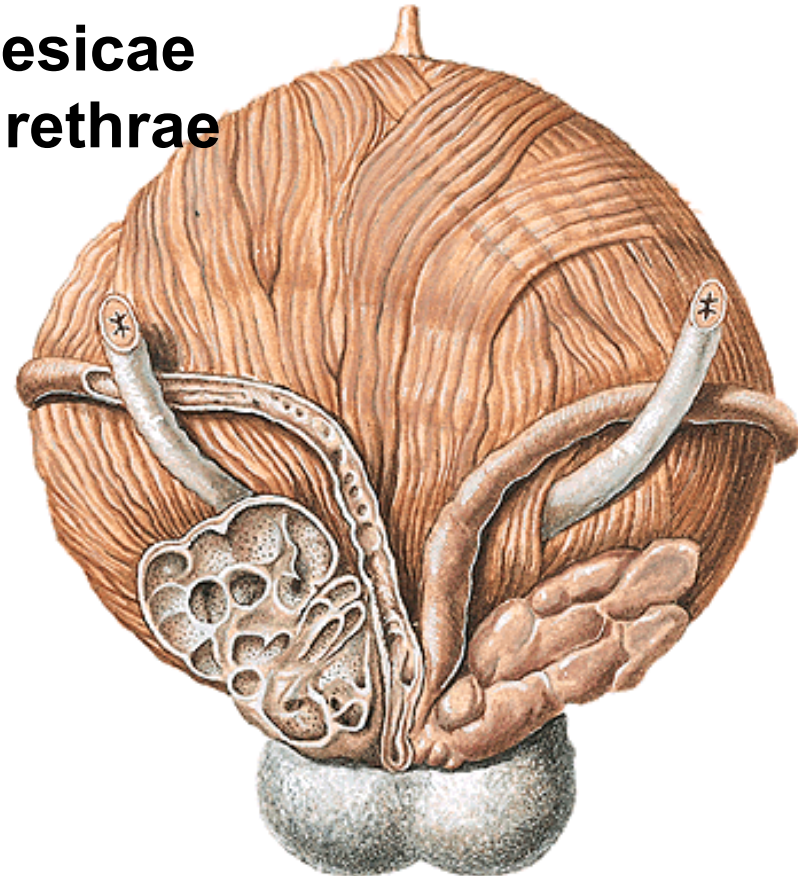
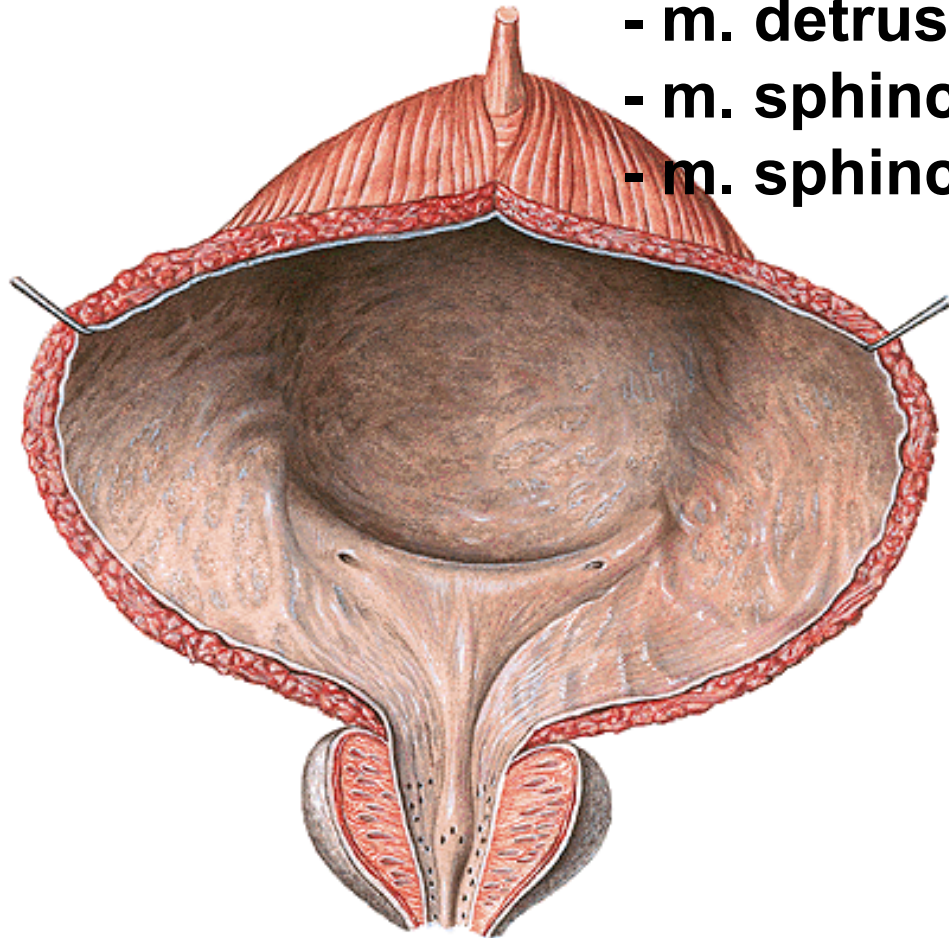
VESICA URINARIA

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



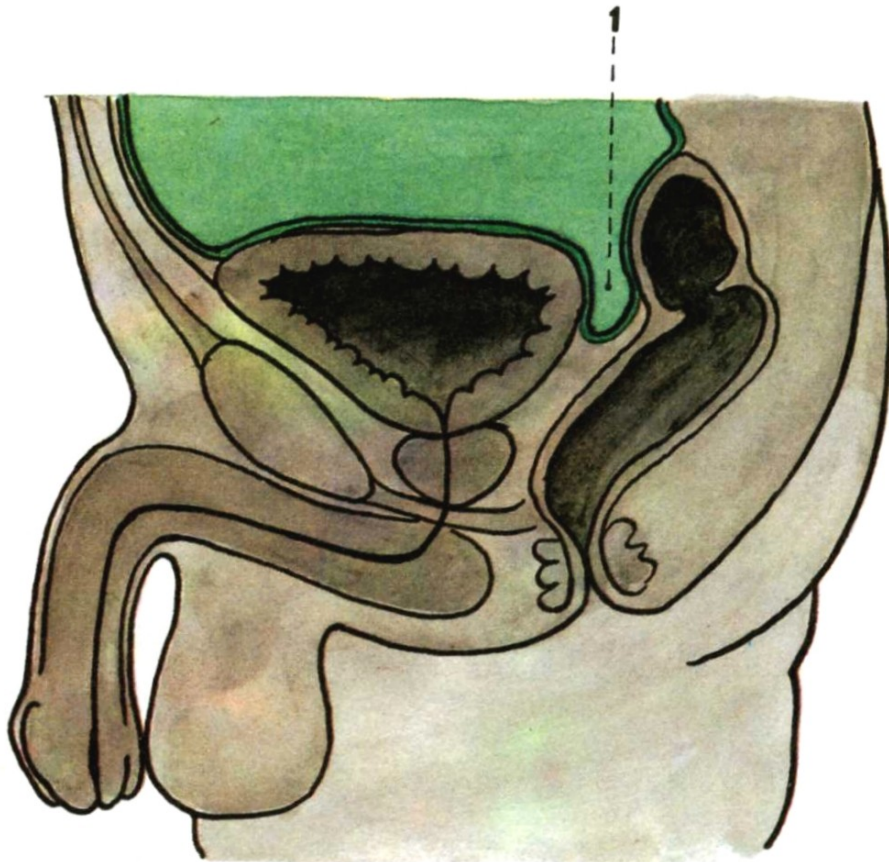
Trigonum vesicae – ostia ureterum

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



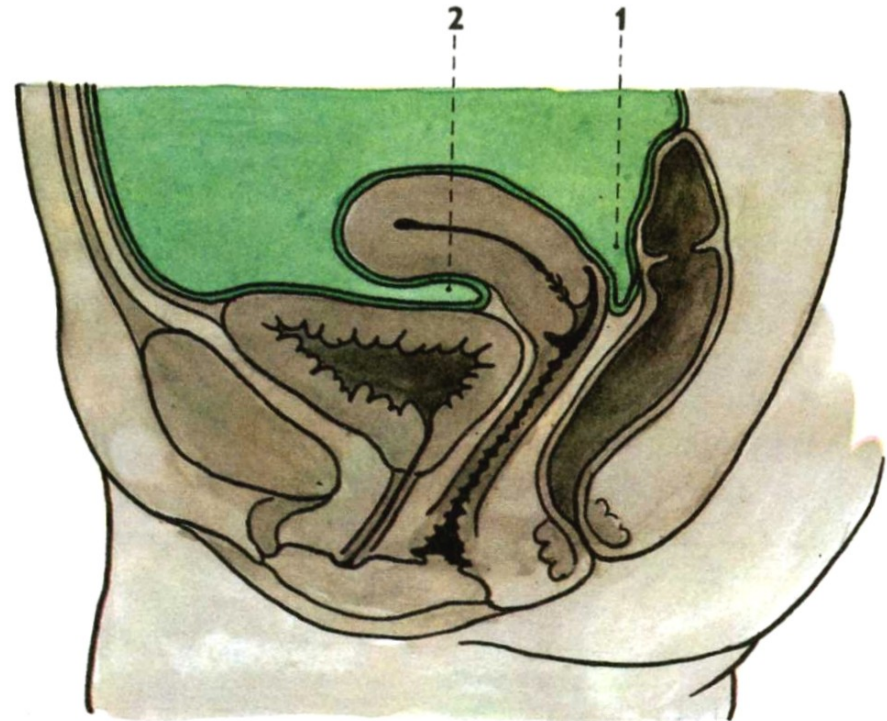
Median section through the male pelvis

1. Excavatio rectovesicalis



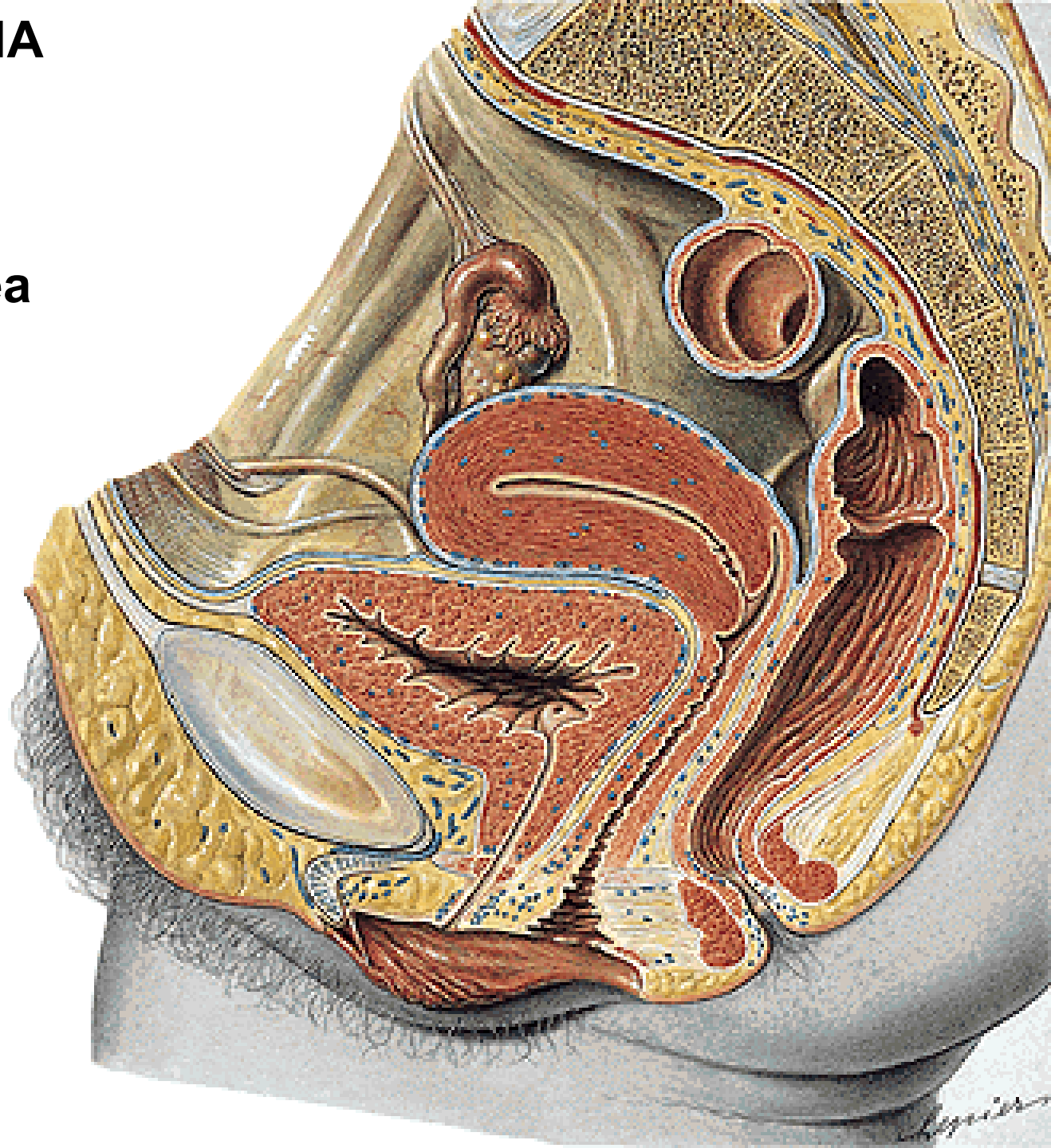
Median section through the female pelvis

1. Excavatio rectouterina
2. Excavatio vesicouterina



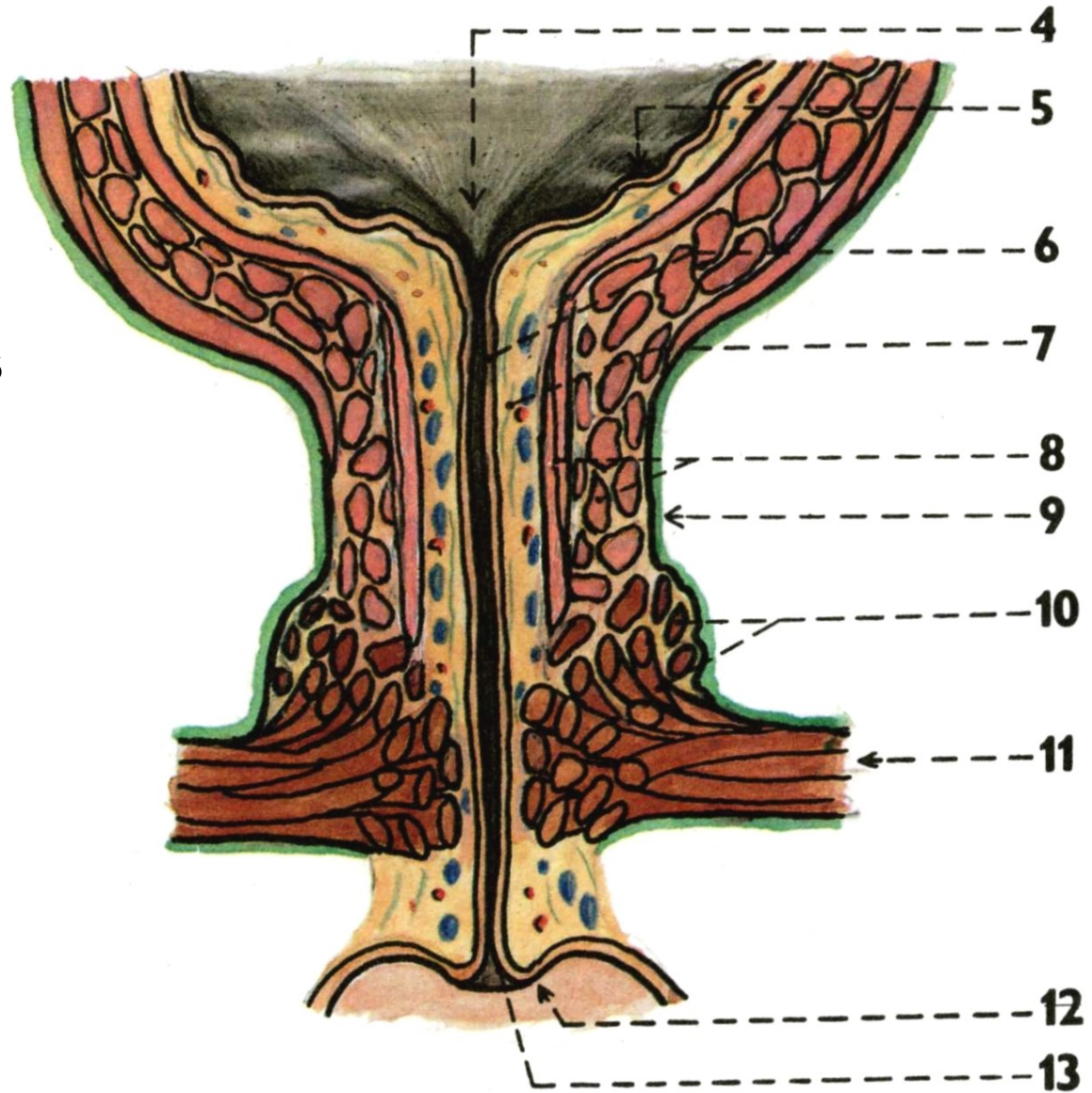
URETHRA FEMININA

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

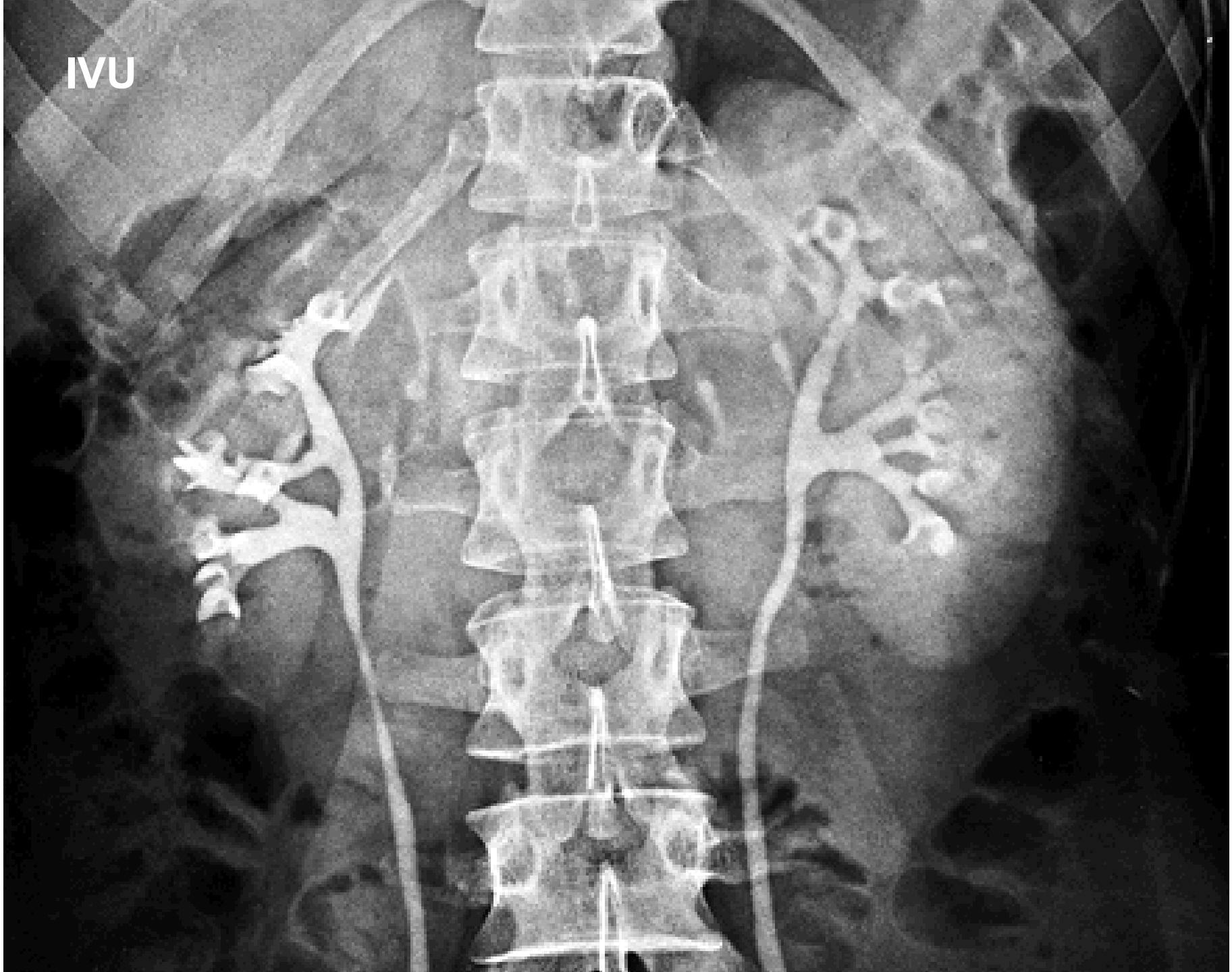


URETHRA FEMININA

Crista urethralis
Lacunae urethrales
Glandulae urethrales
Ductus paraurethrales



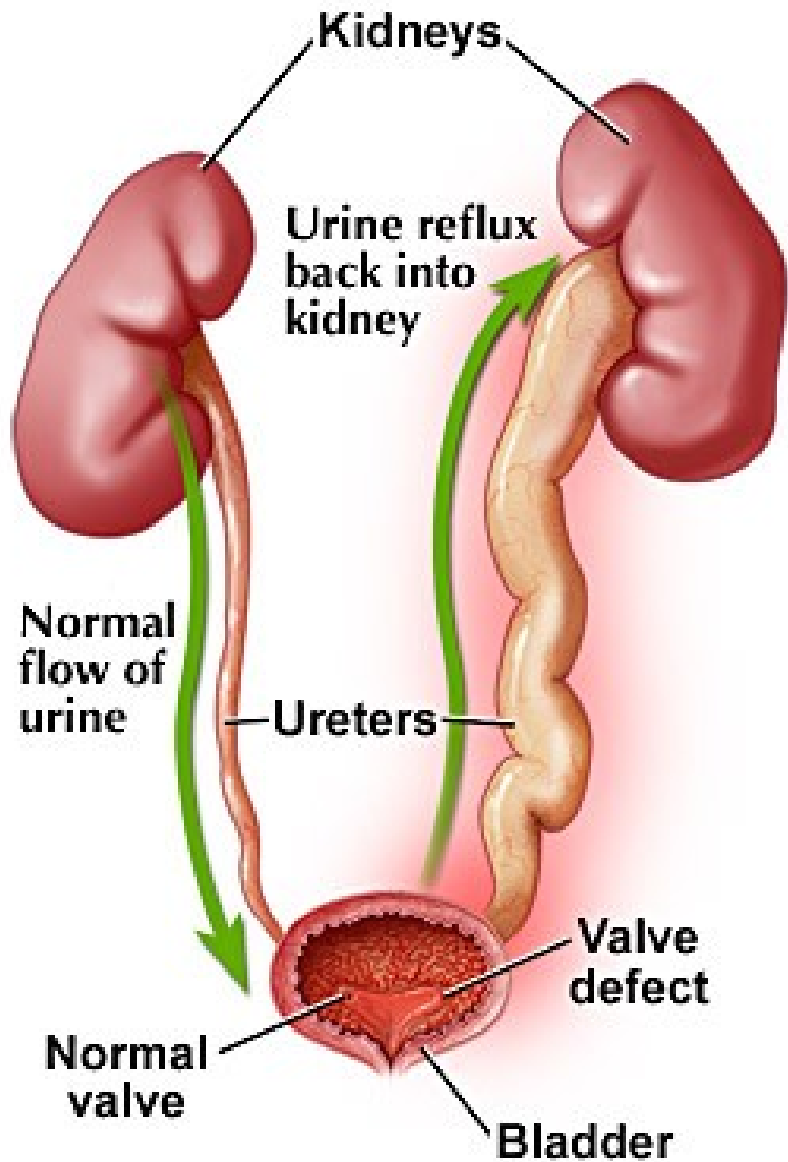
IVU



Retrograde pyelography

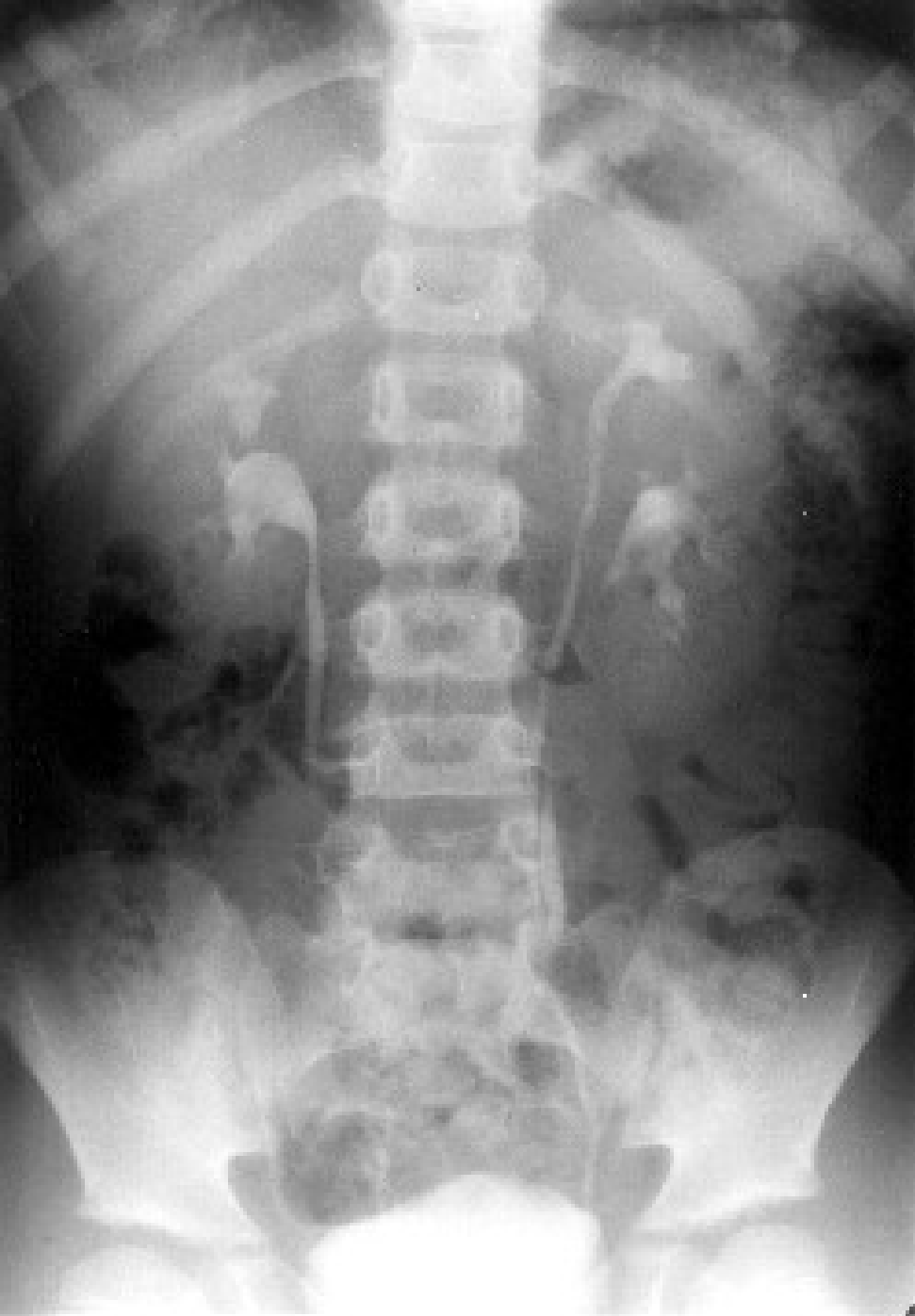


Vesicoureteral reflux (VUR) – voiding cystourethrogram (VCU)

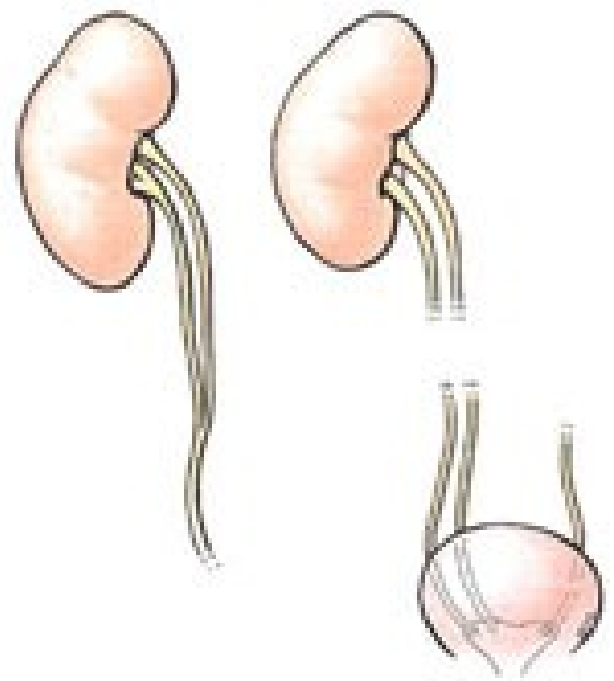


Retrocaval ureter

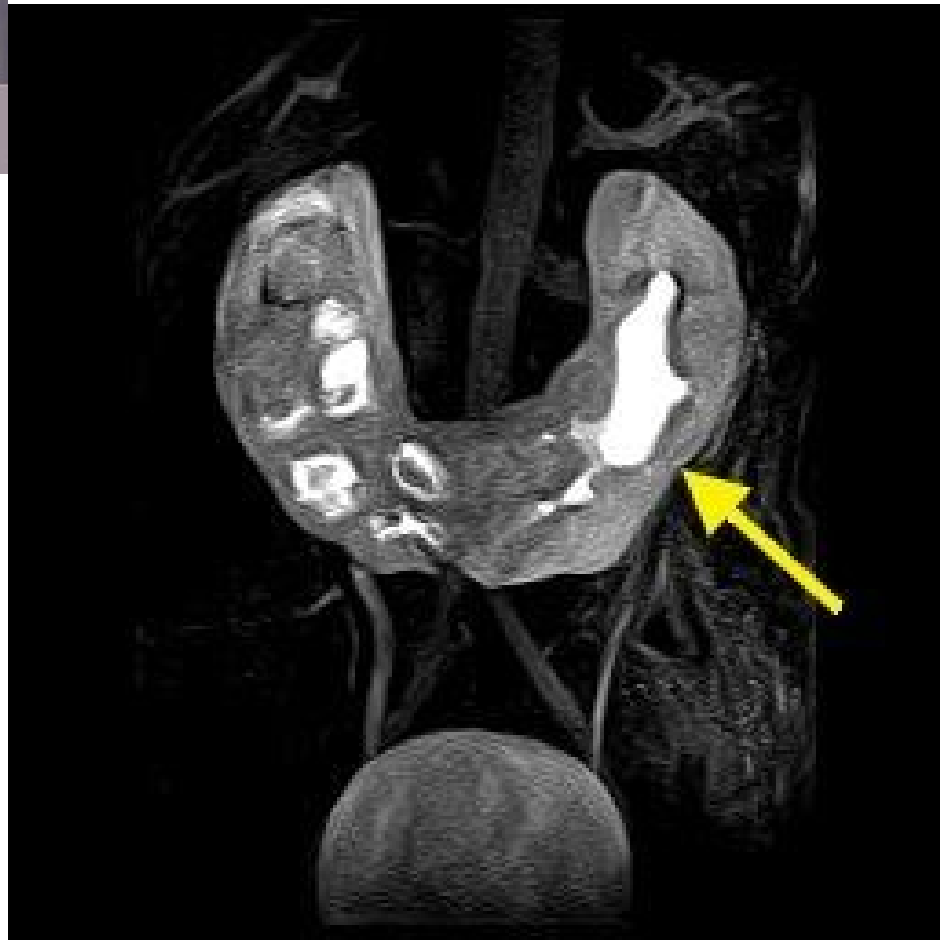
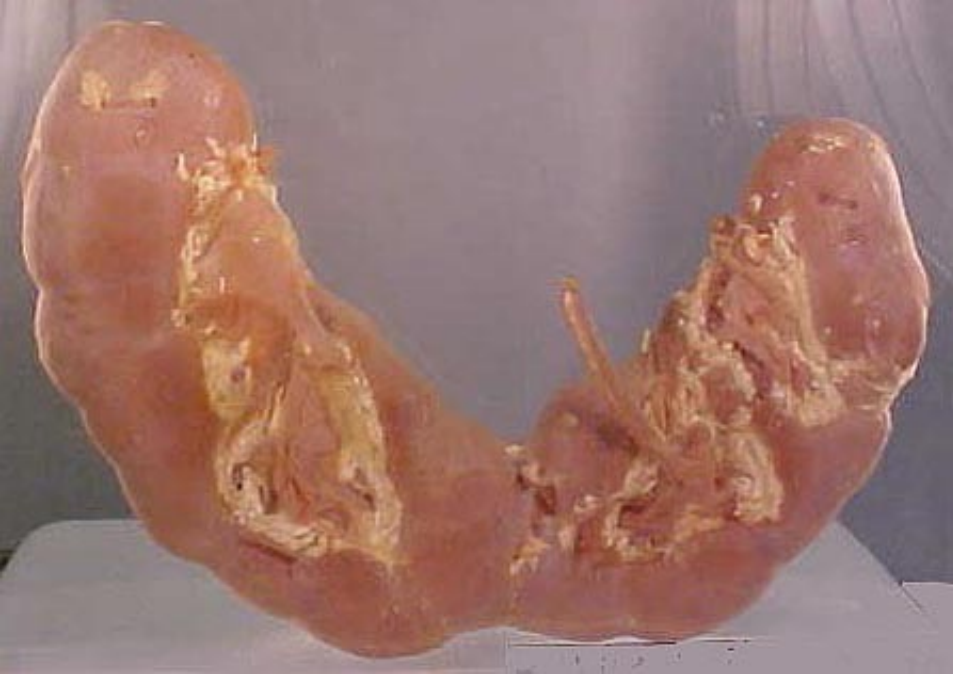




Ureter duplex



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.**