

Vastagbél

Dr. L. Kiss Anna

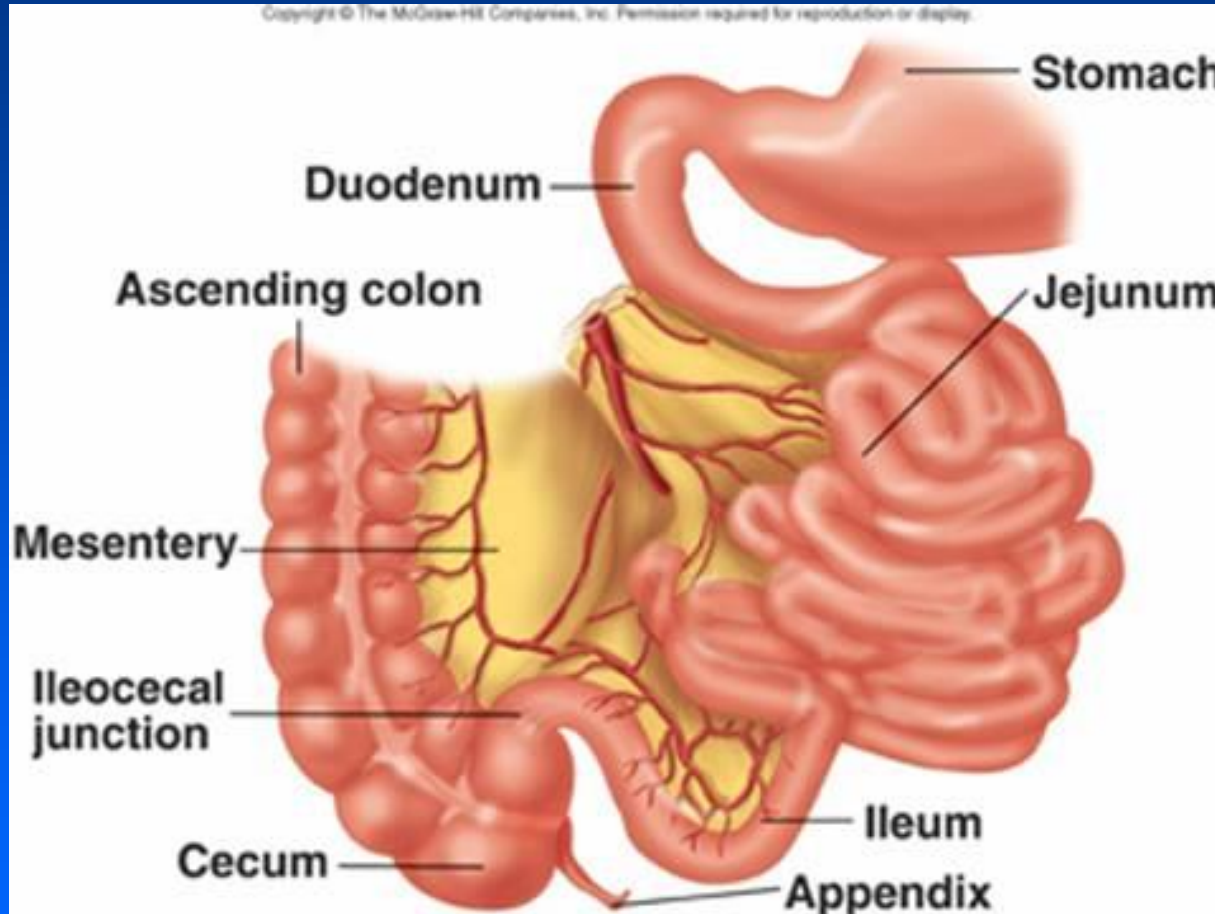
Anatómiai, Szövet és Fejlődéstani Intézet

Semmelweis Egyetem

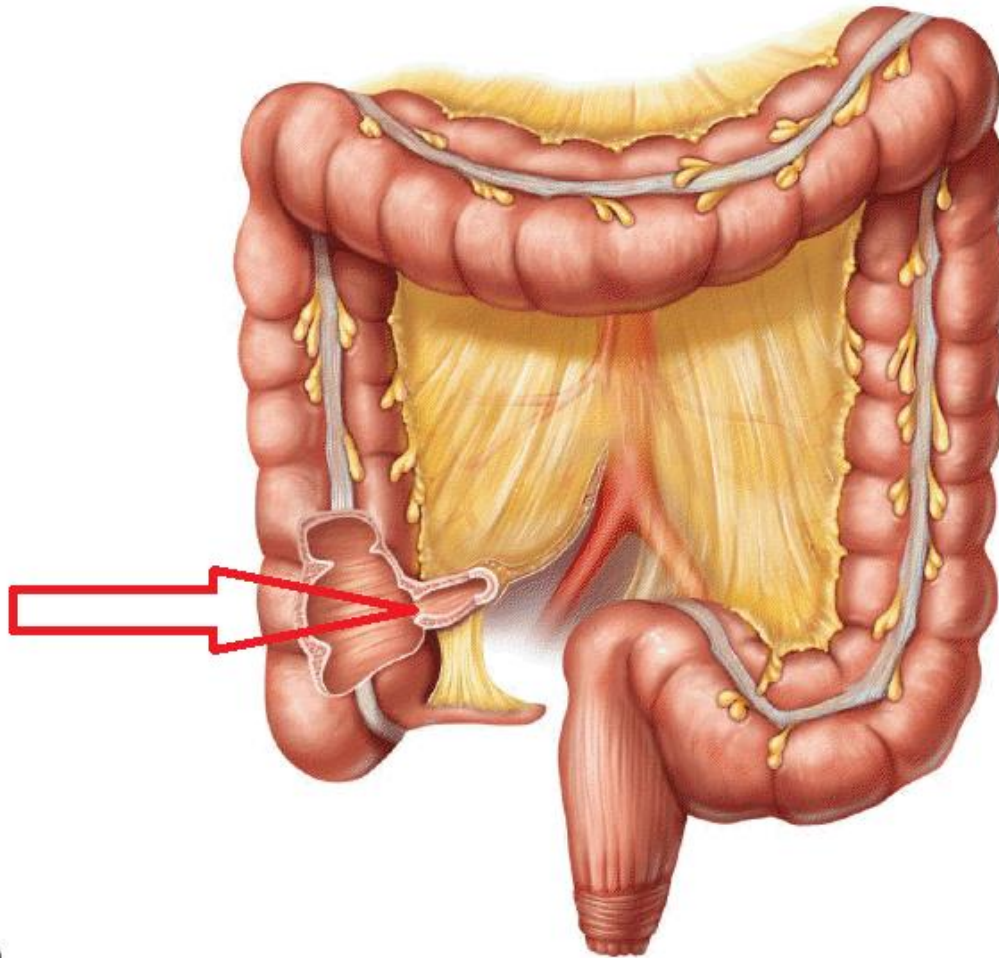
Budapest

2018

Ileocecalis átmenet

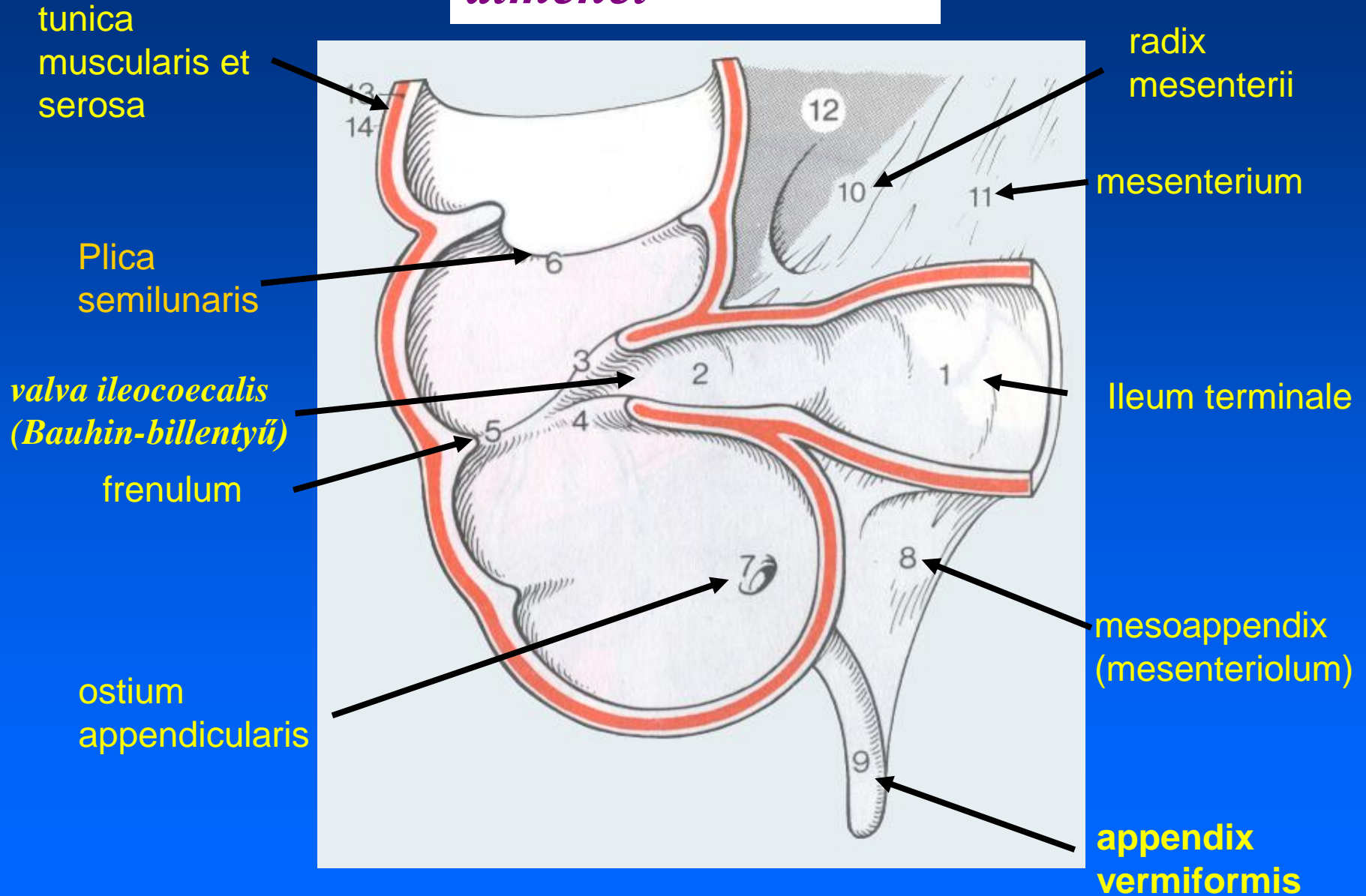


Ileocecális átmenet

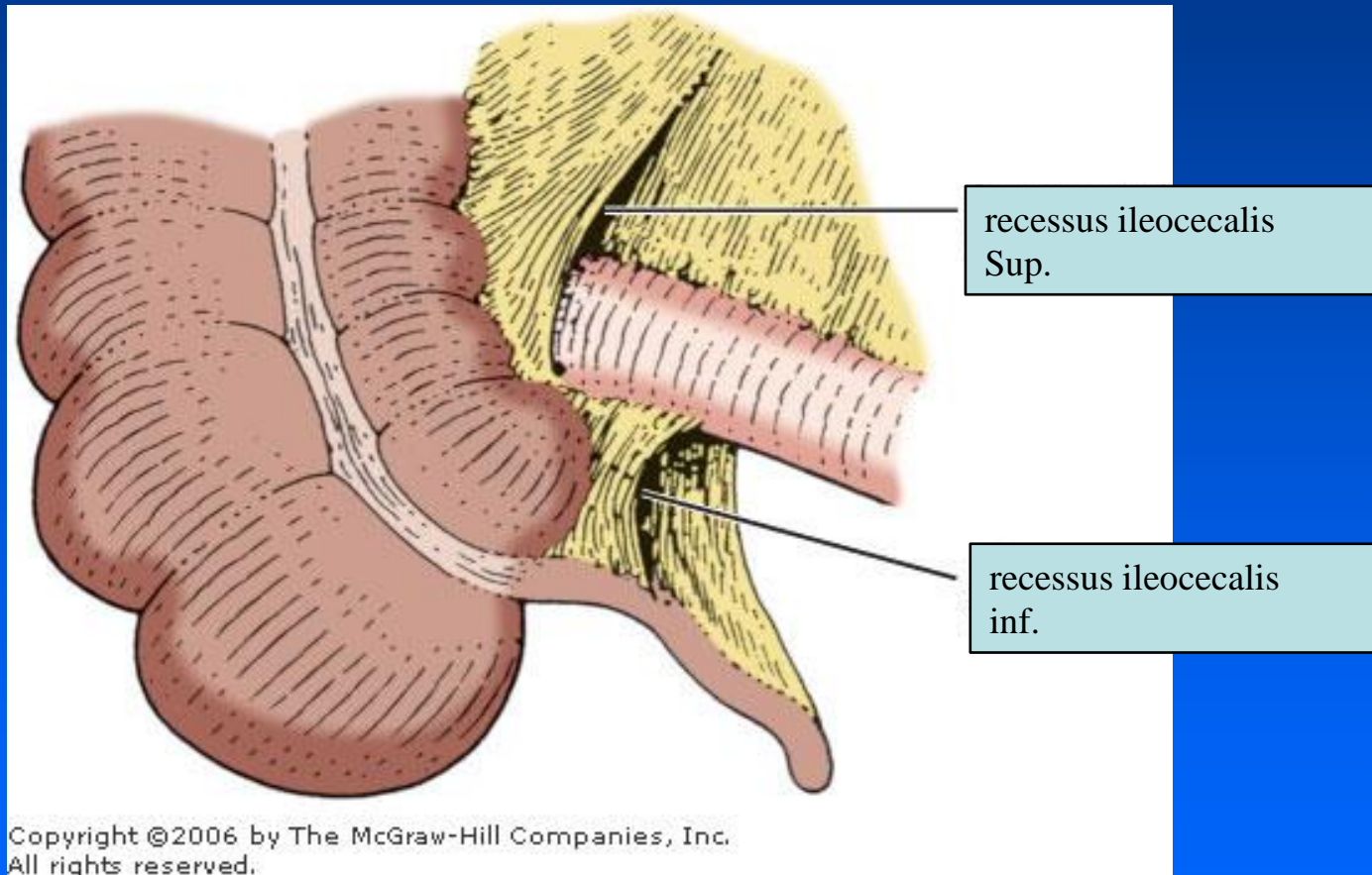


(a)

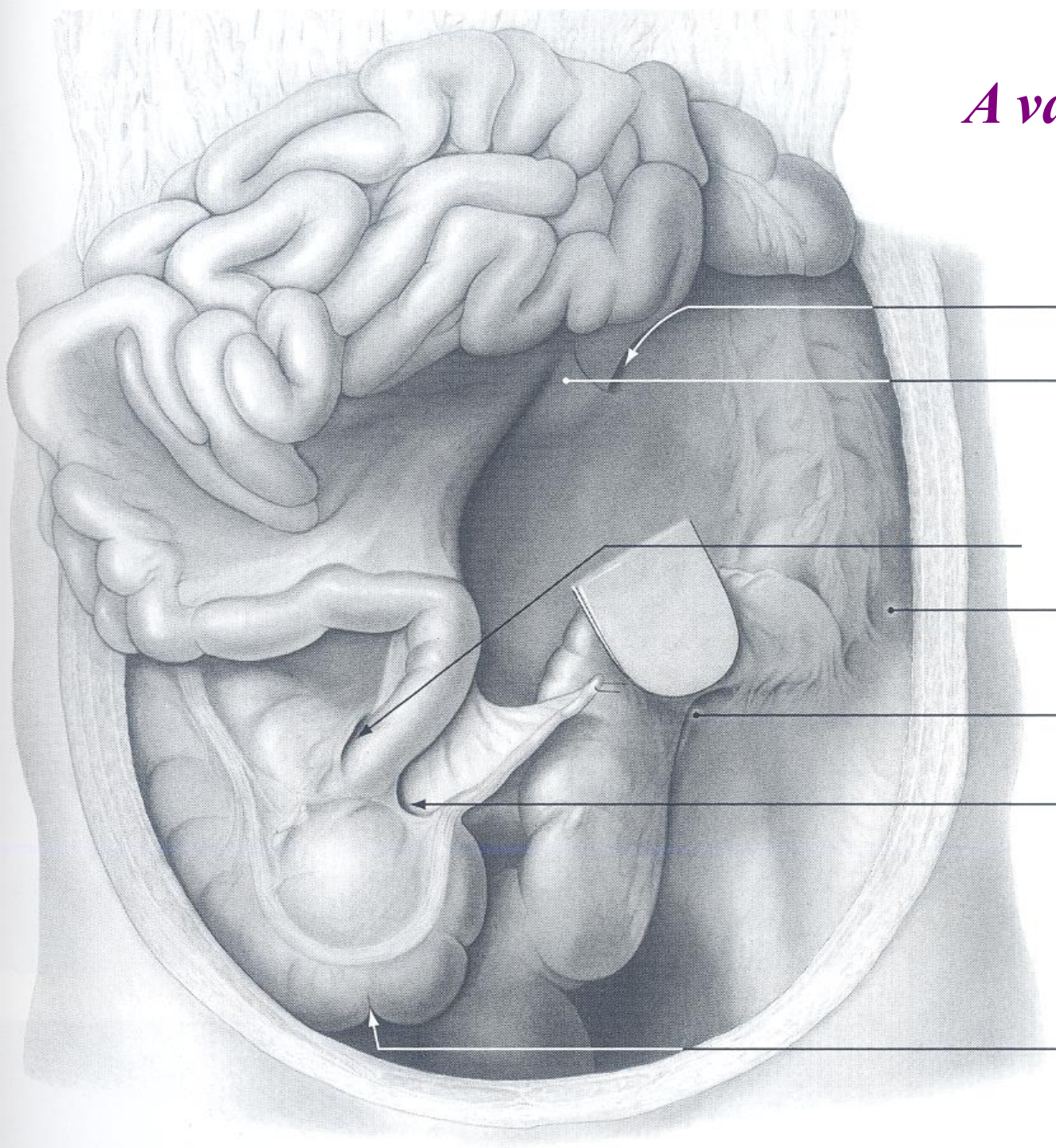
Az ileocoecalis átmenet



Ileocecalis átmenet



A vakbél recessusai

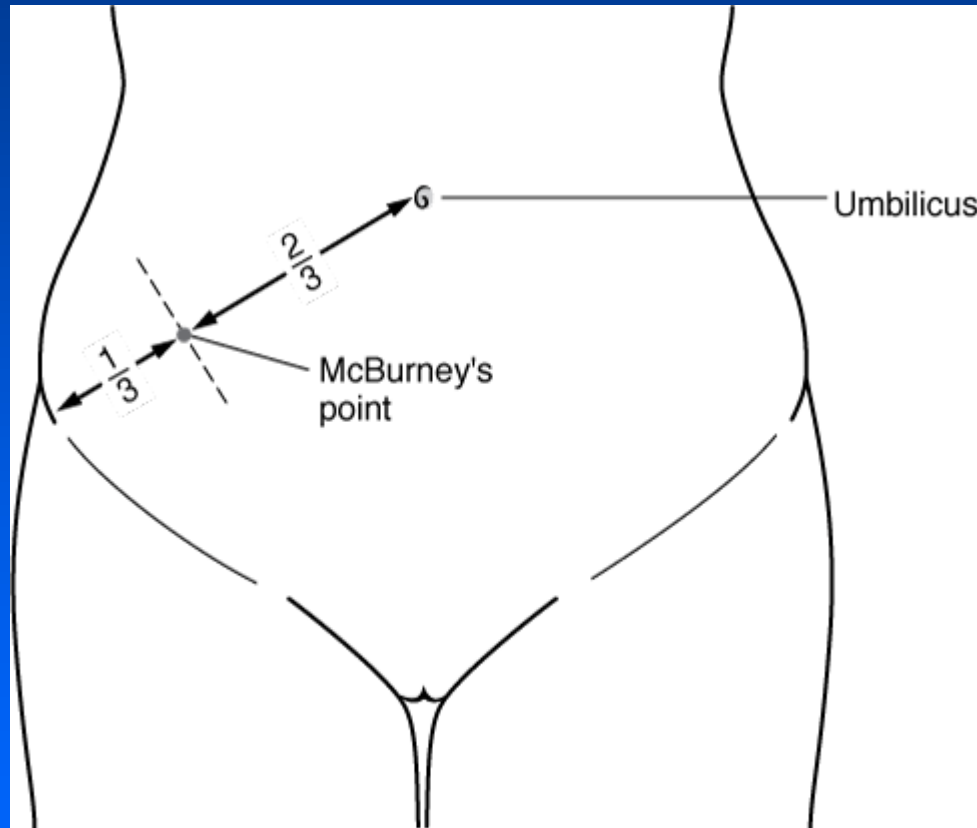


**recessus ileocecalis
sup.**

Recessus intersigmoideus

recessus ileocecalis inf.

Az appendix helyzete



Source: Toy EC, Yetman RJ, Girardet RG, Hormann MD, Lahoti SL, McNeese MC, Sanders MJ: *Case Files®: Pediatrics, 3rd Edition*: www.accesspediatrics.com

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A féregnyúlvány helyzeti változatai

spina-köldök vonal (1)

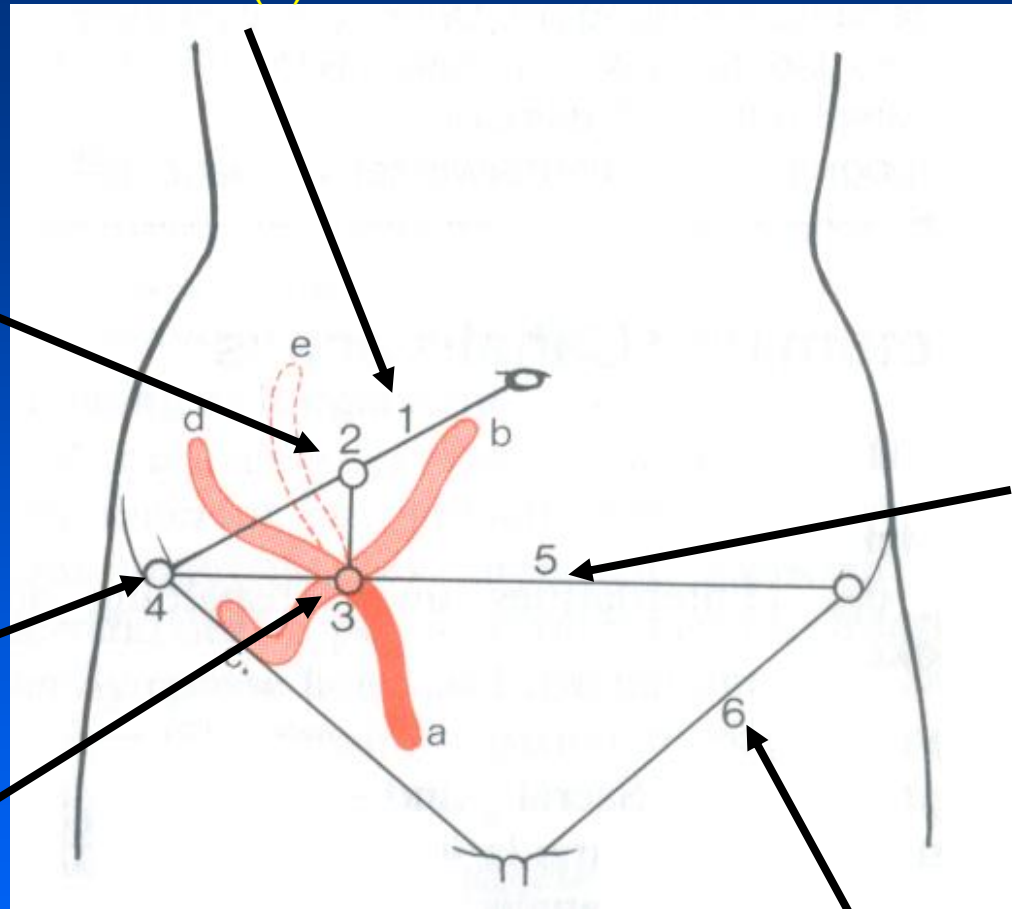
McBurney-féle pont (2)

spina iliaca ant. sup. (4)

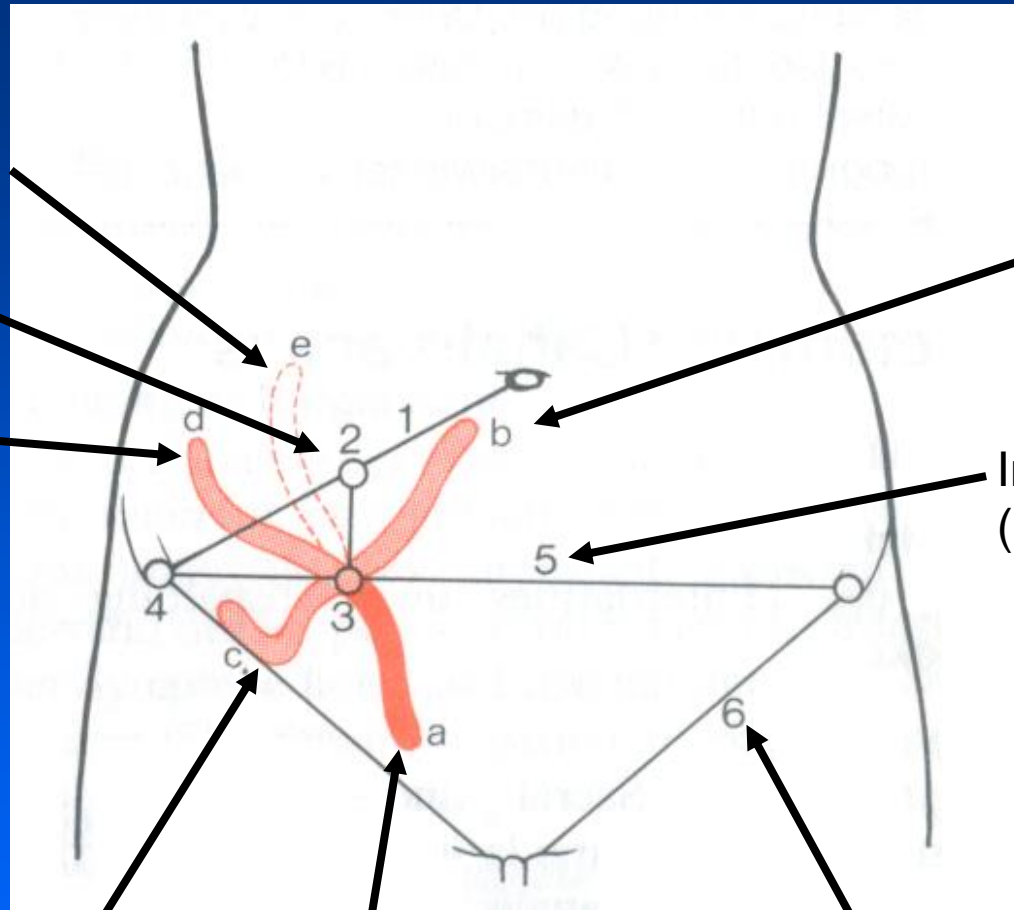
Lanz-féle pont (3)

Interspinalis vonal (5)

lig. inguinale (6)



A féregnyúlvány helyzeti változatai



positio retrocecalis (e)

McBurney-féle pont (2)

positio lumbalis (d)

positio anteroparietalis (b)

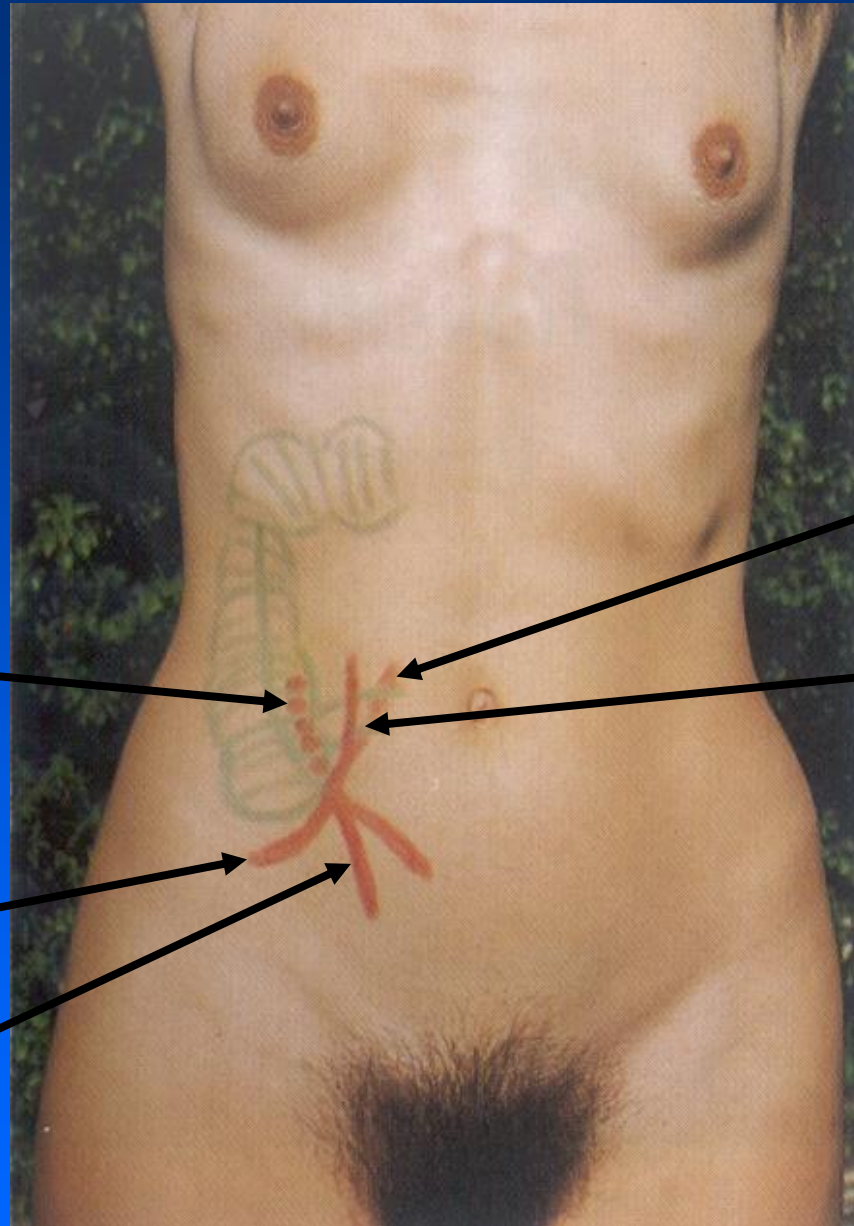
Interspinalis vonal (5)

positio ilioinguinalis (c)

positio pelvina (a)

Lig. inguinale (6)

A féregnyúlvány helyzeti változatai



positio
retrocoecalis (d)

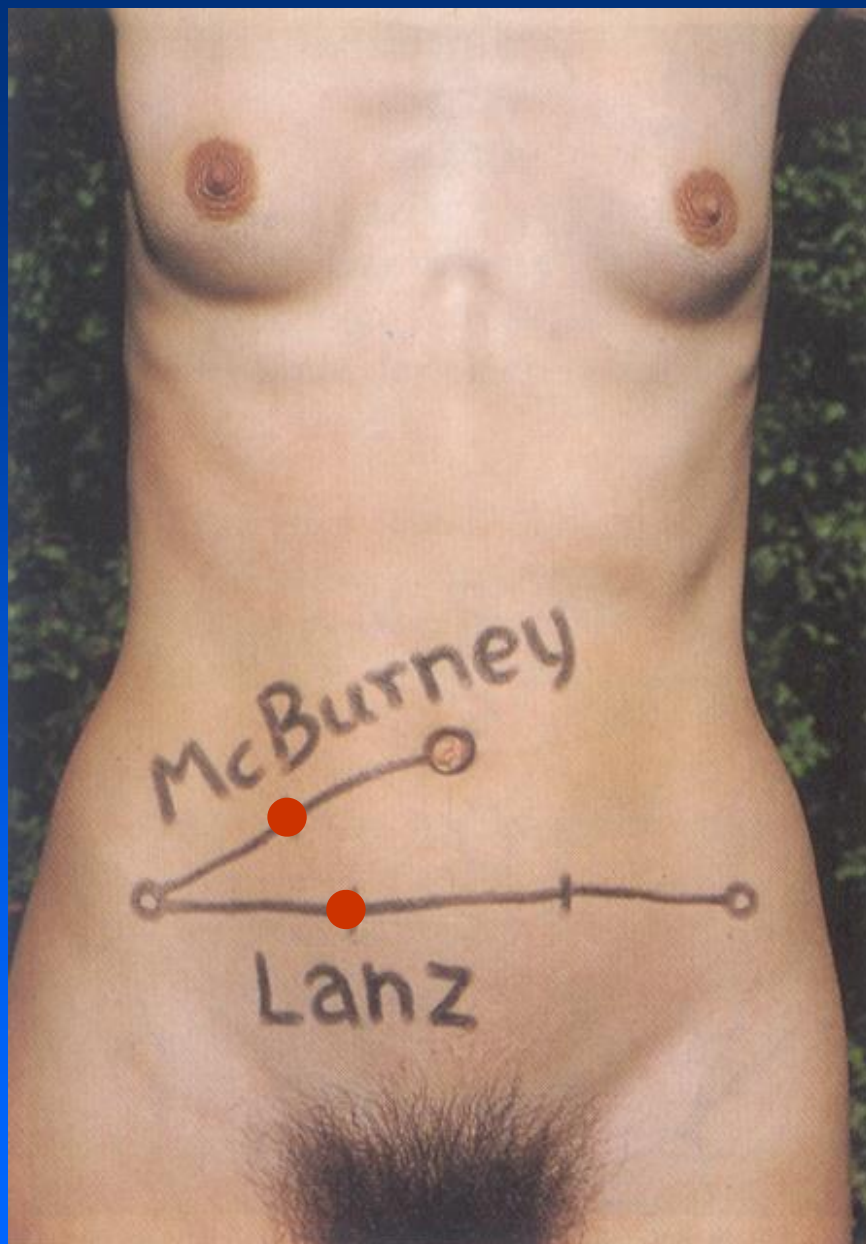
positio
ilioinguinalis (c)

positio pelvina (a)

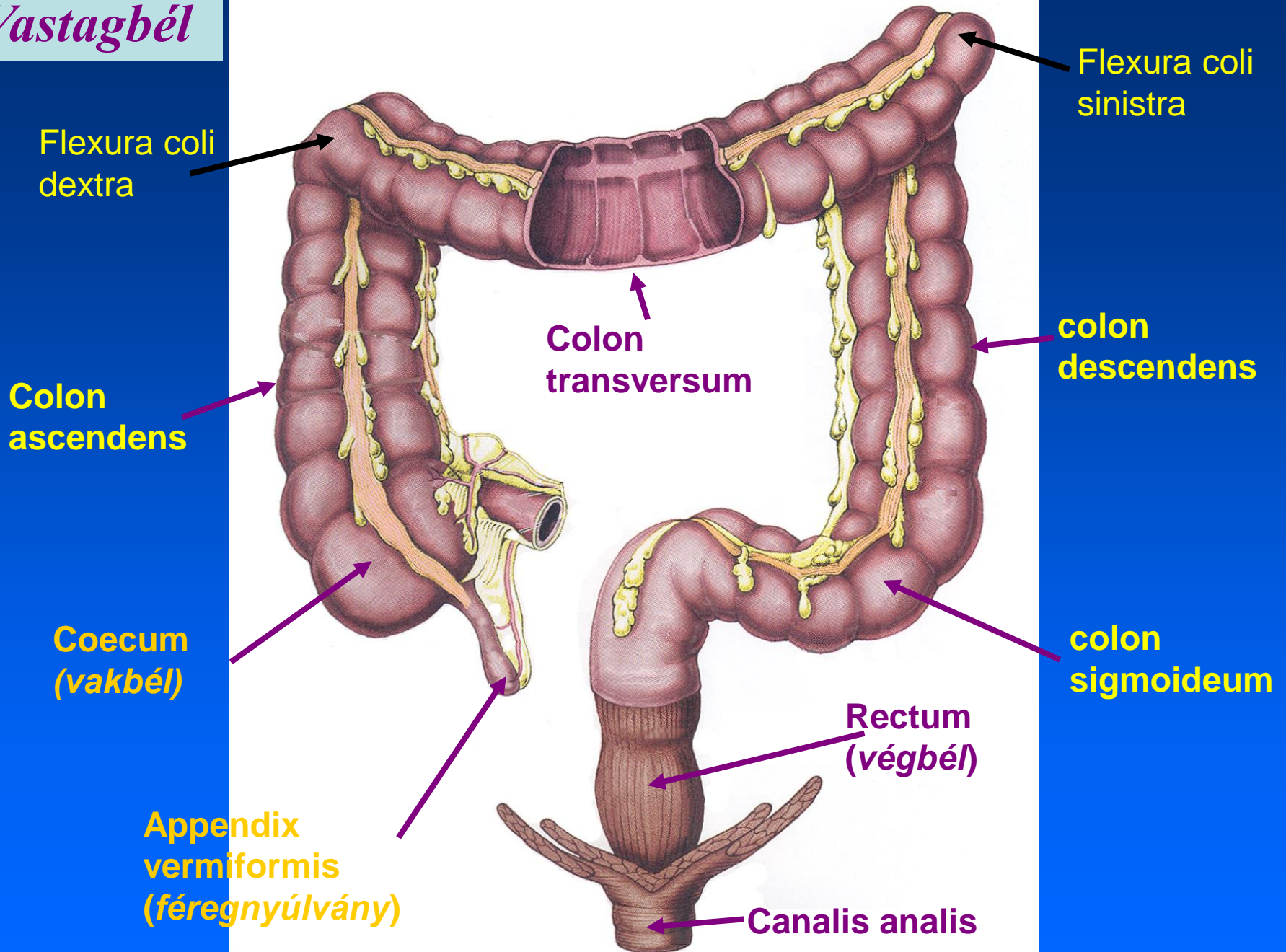
positio lumbalis (d)

positio
anteroparietalis (b)

*Tipikus
nyomásponatok
appendicitis
esetében*



Vastagbél



**flexura coli
dextra**

**colon
ascendens**

coecum

ileum

appendix

rectum

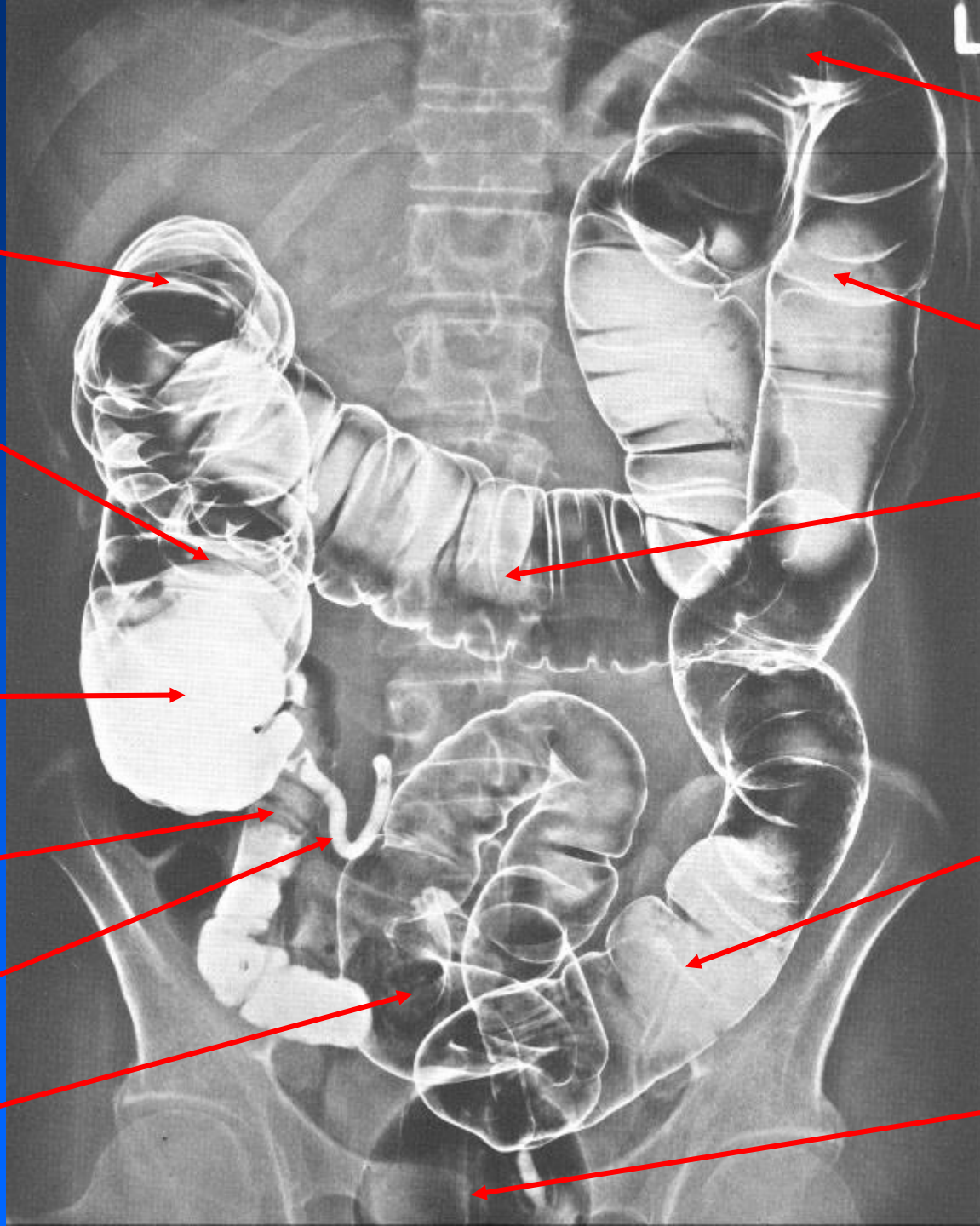
**flexura coli
sinistra**

**clon
descendens**

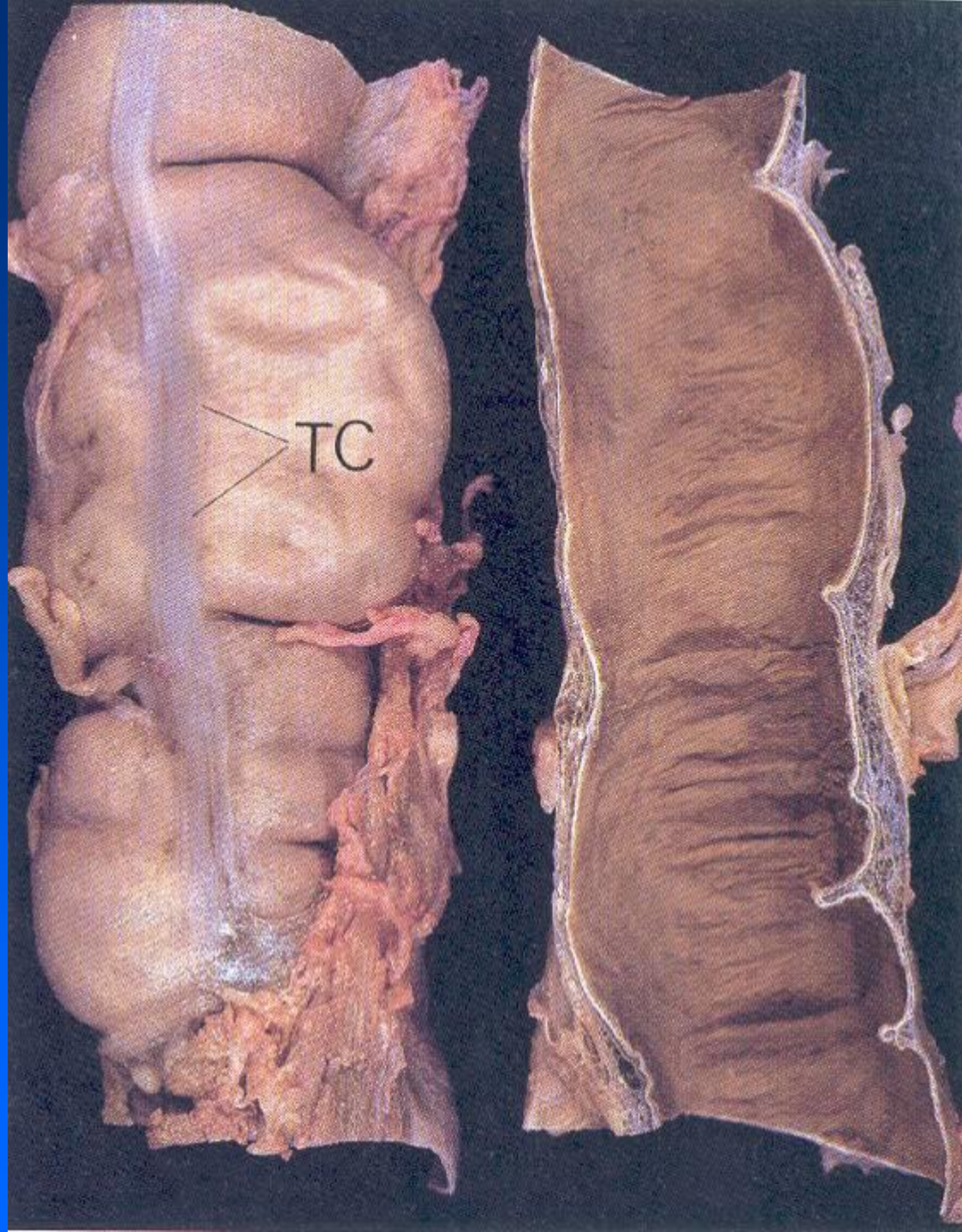
**colon
transvesum**

**colon
sigmoideum**

symphysis



vastagbél



Vastagbél

Tenia omentalis

Plica semilunaris
Haustra

Flexura coli sinistra

Flexura coli dextra

Tenia mesocolica

Colon transversum

Colon descendens

Colon ascendens

Tenia libera

Appendices epiploicae

Colon sigmoideum

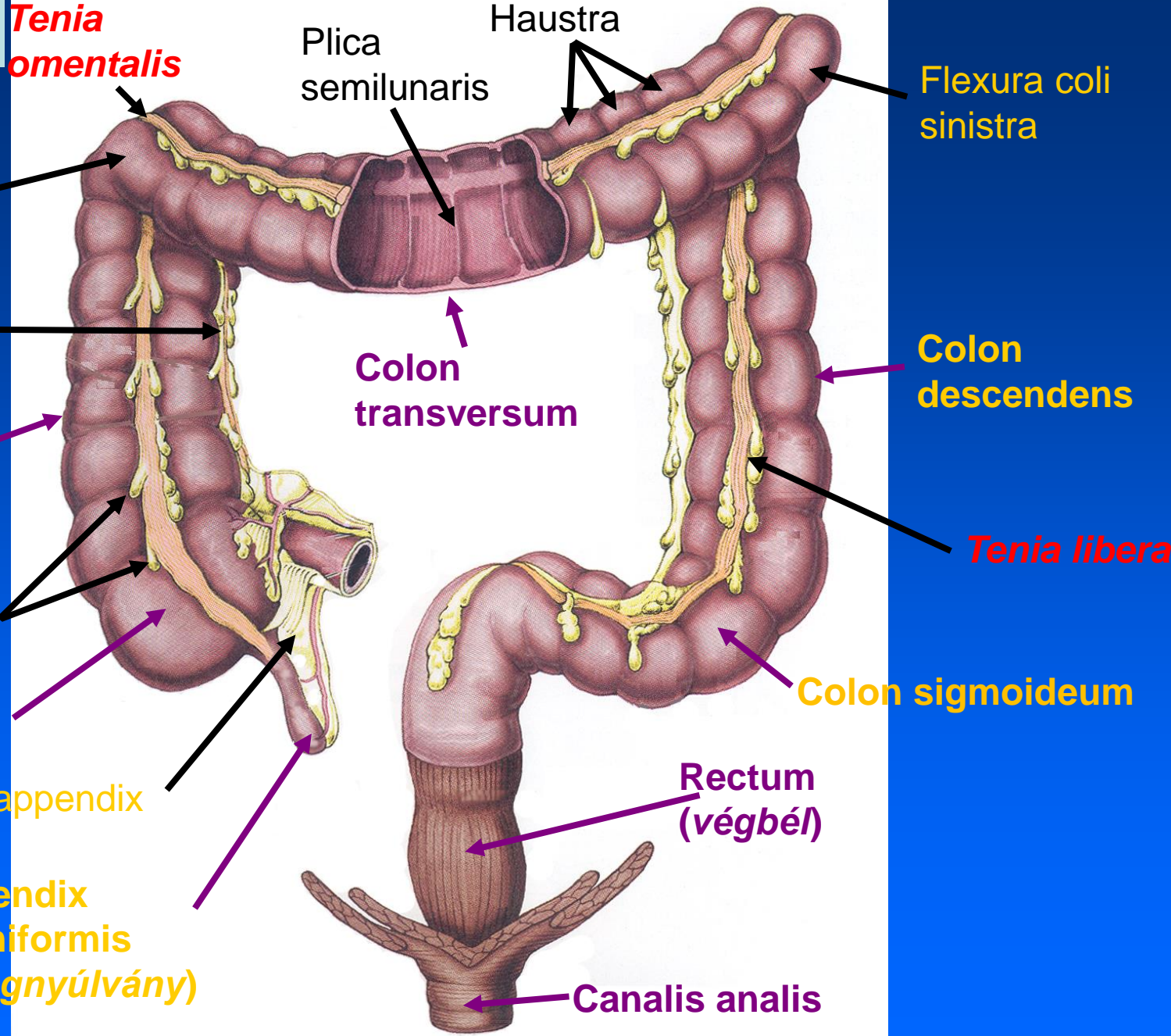
Coecum (vakbél)

Rectum (végbél)

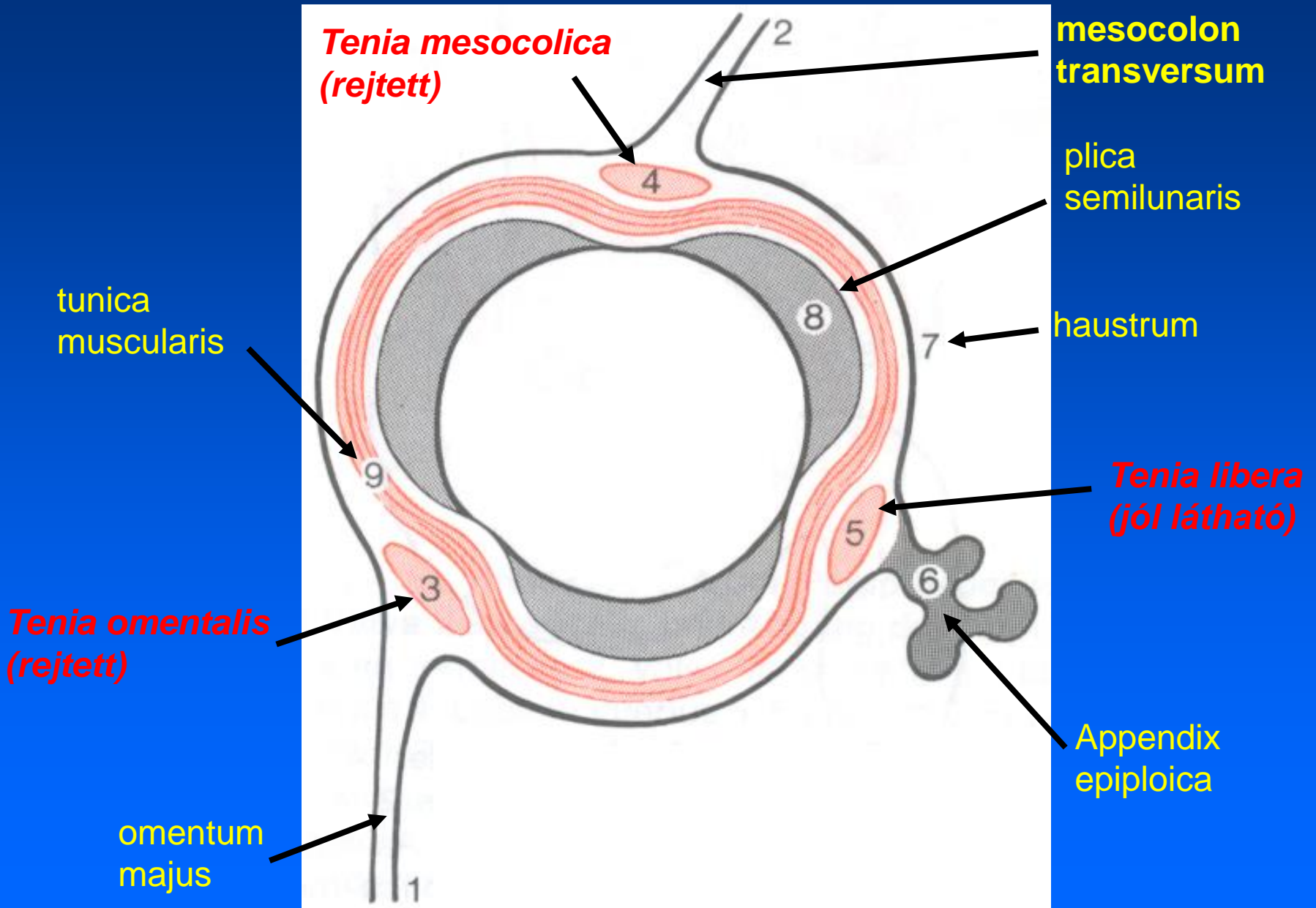
Mesoappendix

Appendix vermiformis (féregnyúlvány)

Canalis analis



A vastagbél teniái



A vastagbél jellemzői

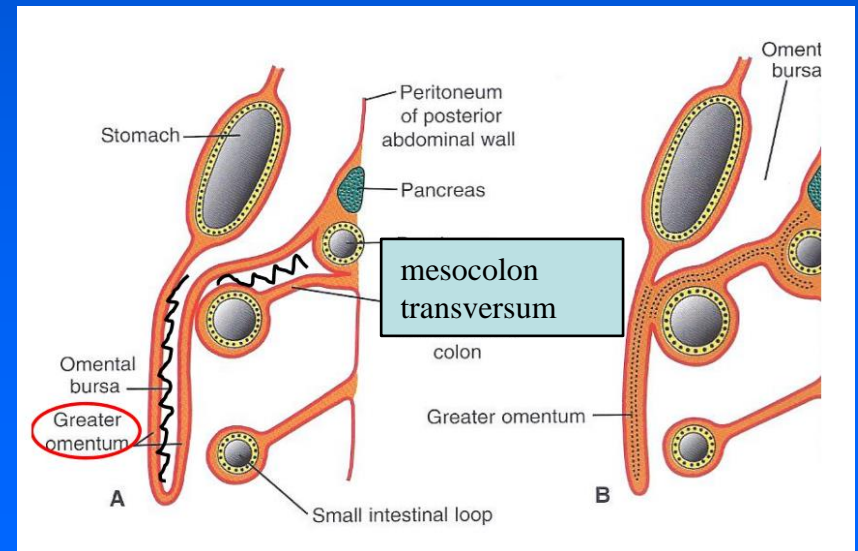
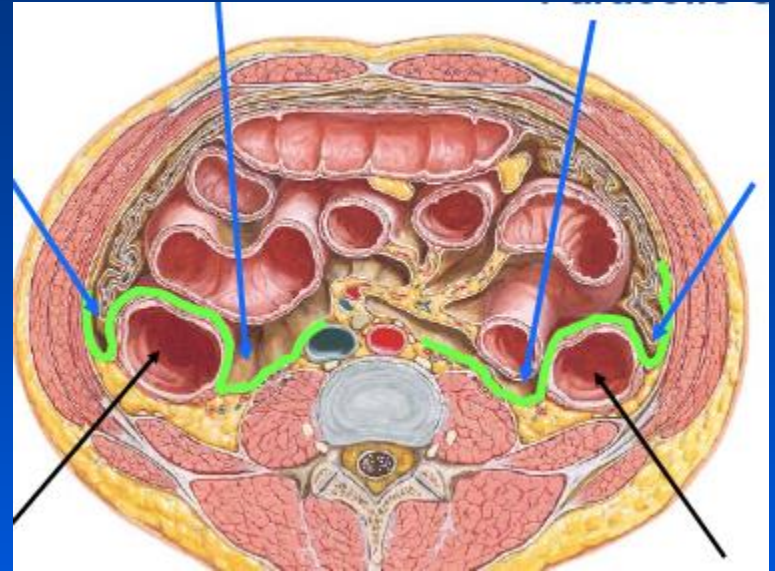
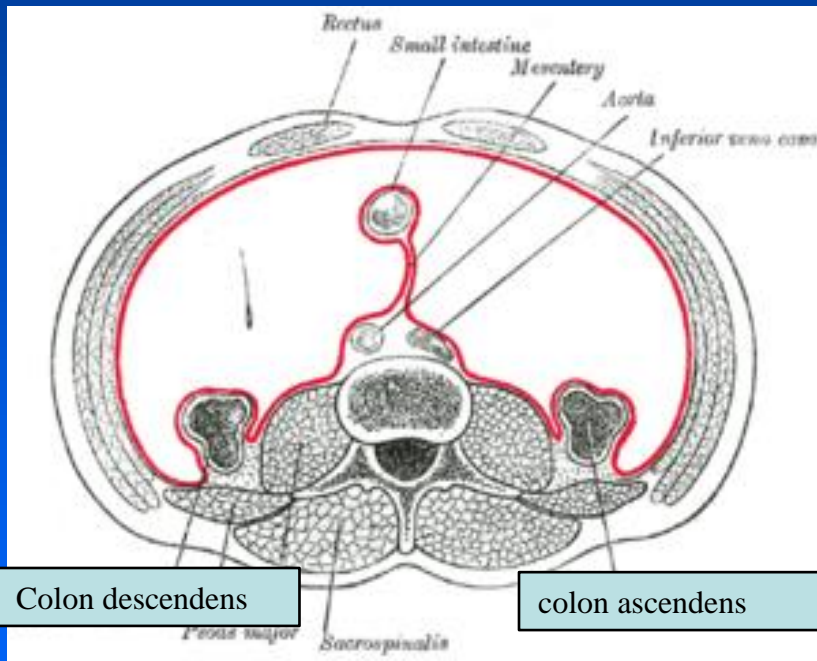
Plicae semilunares: tunica muscularis, stratum circulare (belül)

Teniae coli: tunica muscularis, stratum longitudinale (kívül)

Haustra: a teniák és a plicae semicircularis közötti kiöblösödések

Appendices epiploicae (omentales): zsírfüggelékek a subserosus kötőszövetben

A colon hashártya viszonyai



A vastagbél vérellátása

arteria mesenterica sup. :

ileocecalis szájadék

cecum

colon ascendens

colon transversum

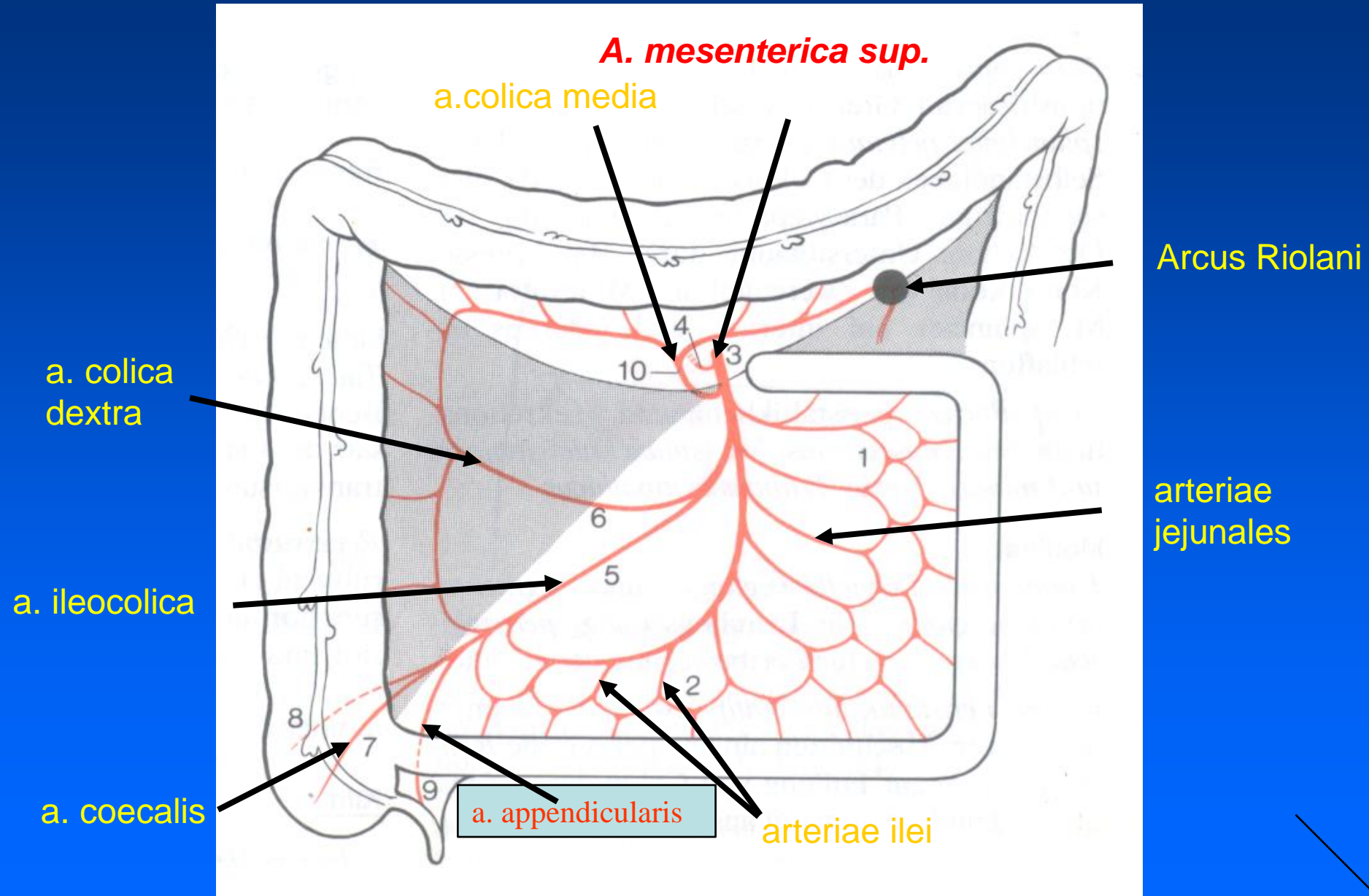
arteria mesentrica inf.:

colon descendens

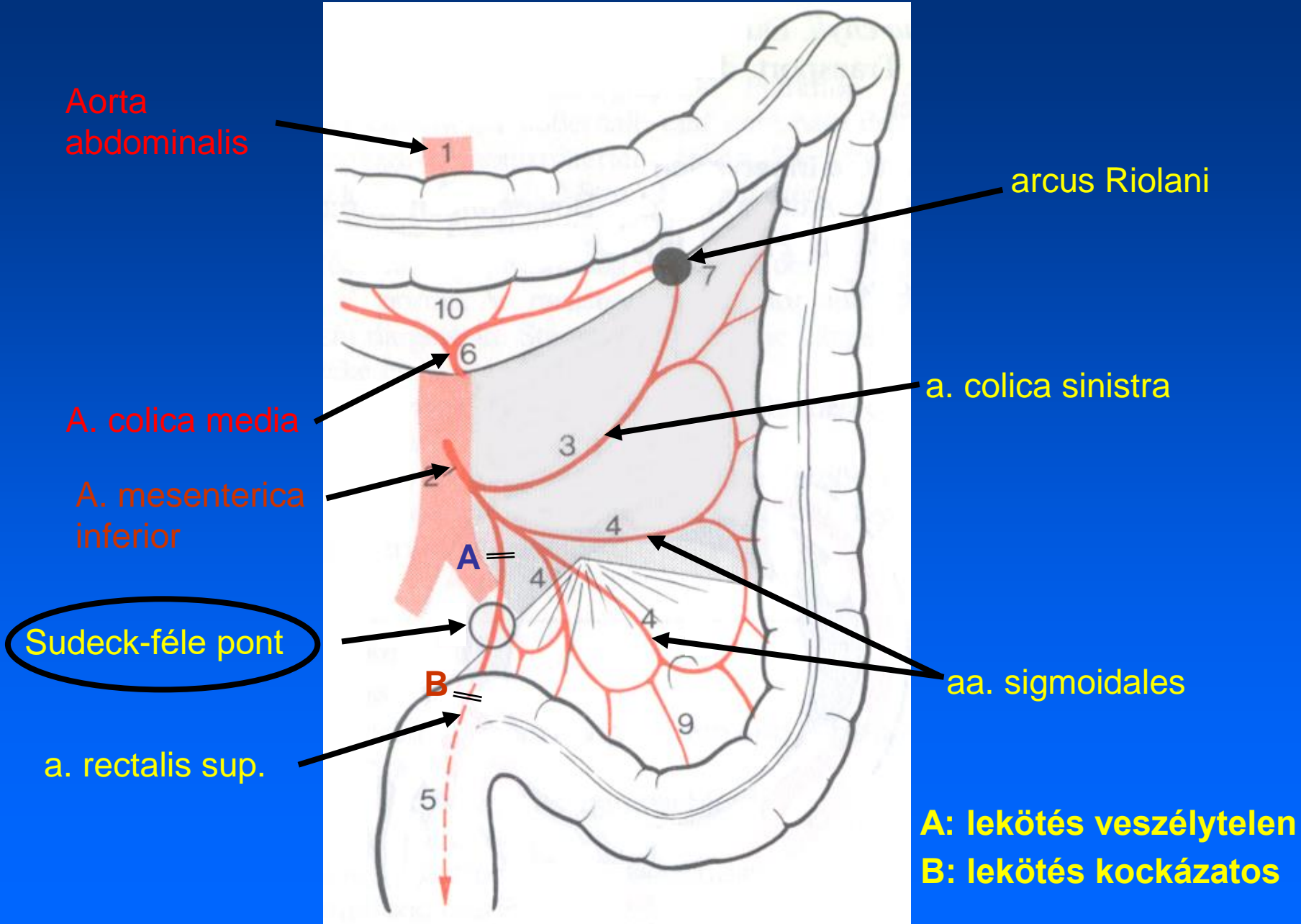
colon sigmoideum

rectum felső 1/3

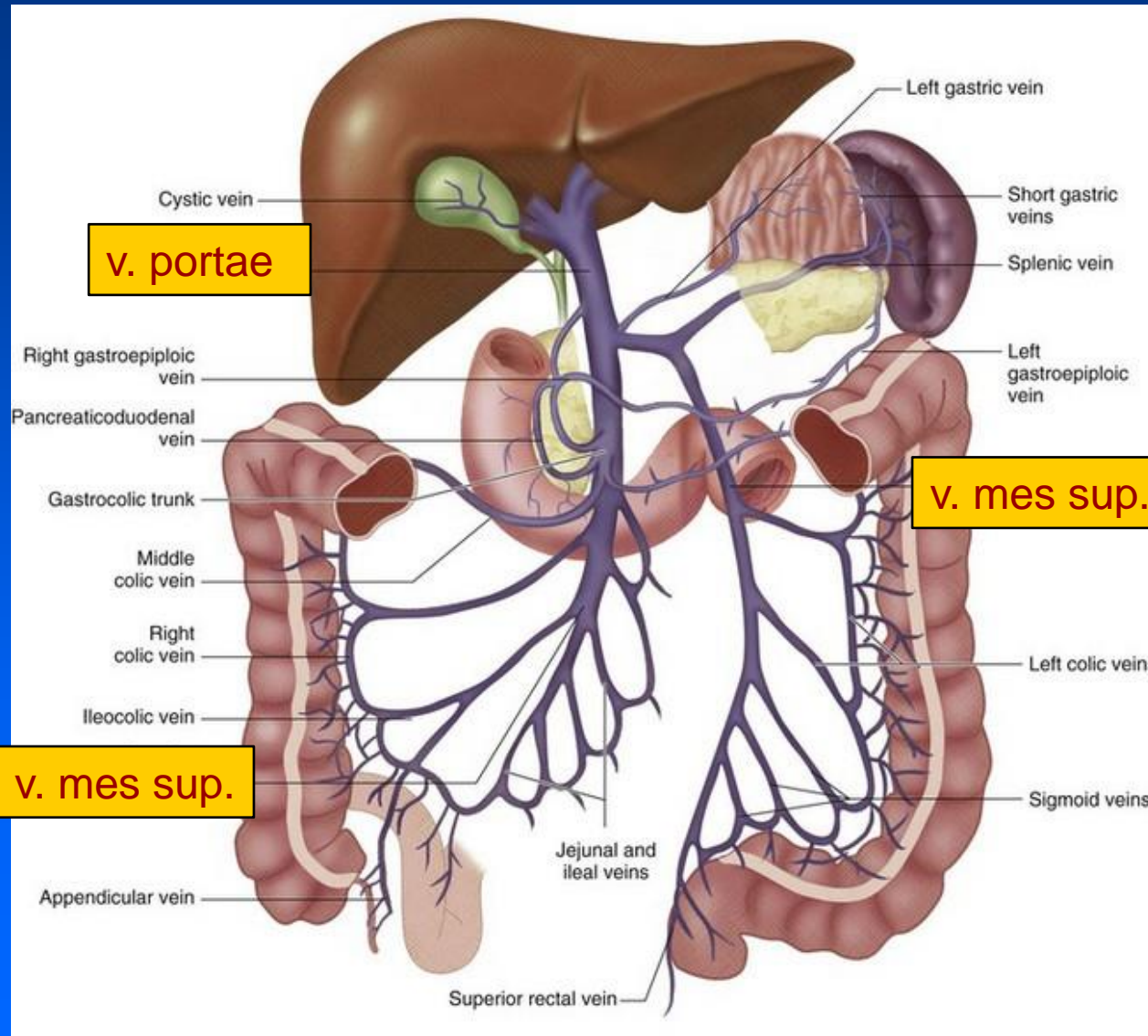
A. mesenterica superior



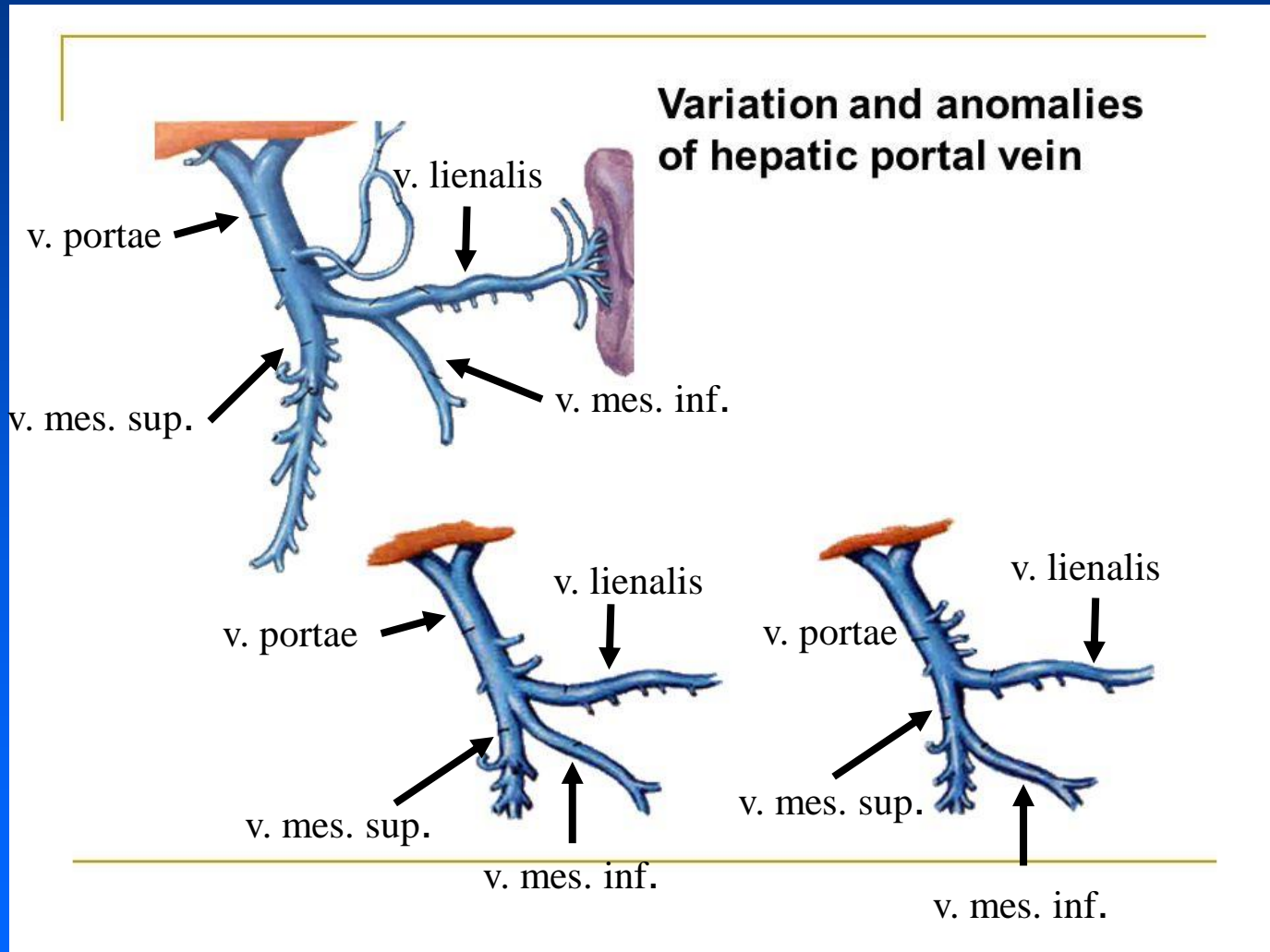
A. mesenterica inferior



A vastagbél vénás elvezetése



„Variációk egy témára”



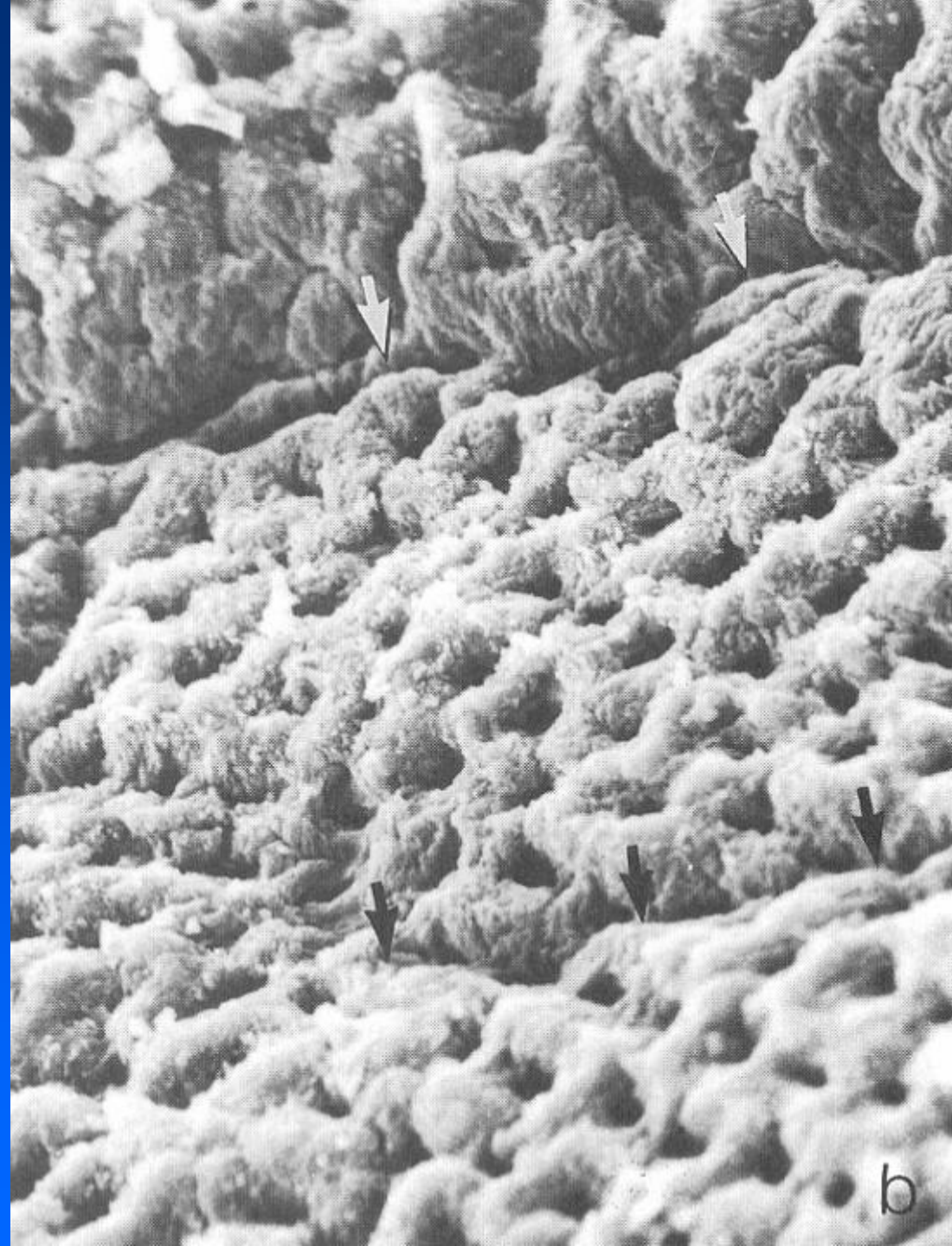
Vastagbél nyálkahártyája

vékonybéllel összehasonlítva

- **bélbolyhok hiánya**
- **mélyebb Lieberkühn kripták**
- **sok kehelysejt**
- **Paneth-sejtek hiányoznak**

- **zsírszövet a submucosa-ban
és a subserosa-ban**

- **solitaer nyirokfolliculusok**



Vastagbél falának szöveti szerkezete

Epithelium mucosae

Tunica muscularis mucosae

Lamina propria (+
Lieberkühn kripták)

Tela
submucosa

TC

Tenia coli

Muc

SubM

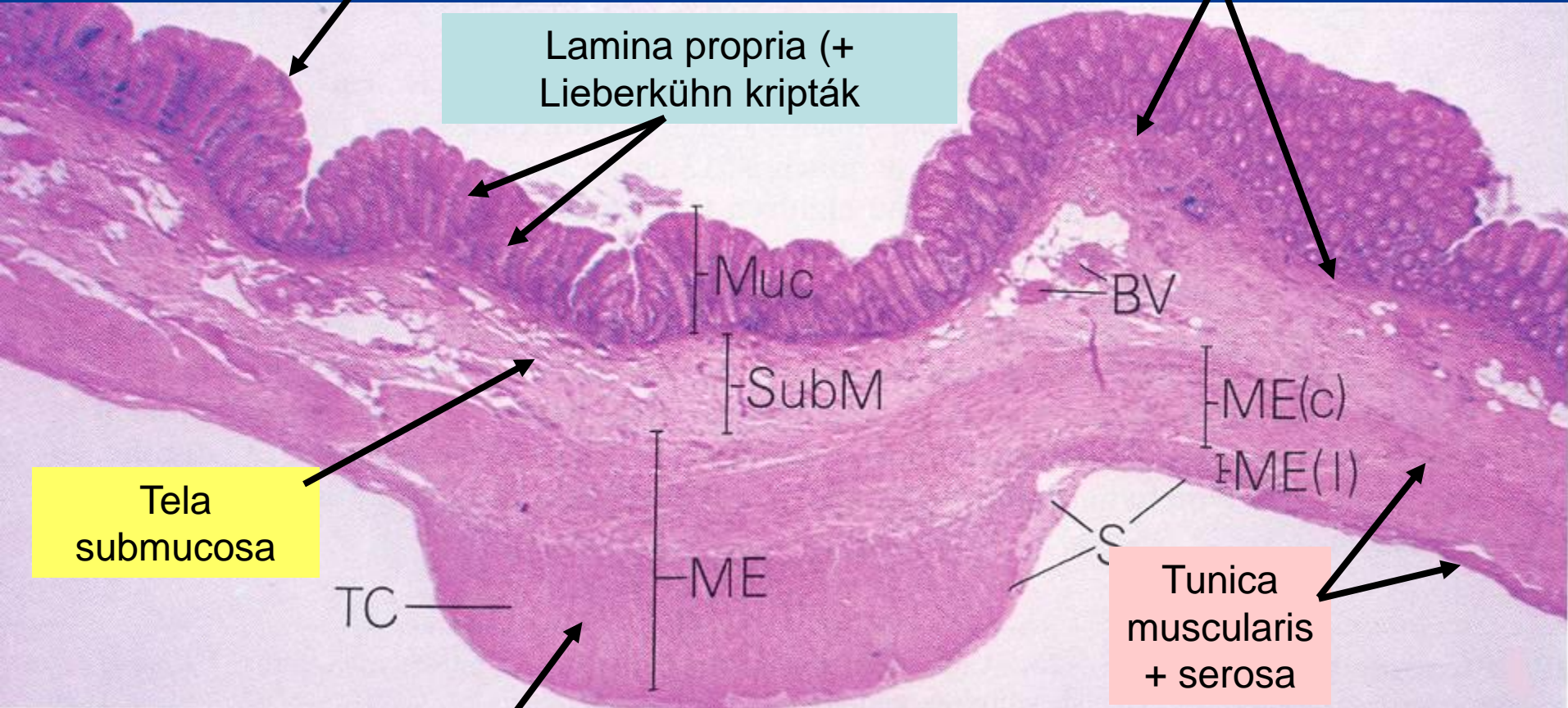
ME

BV

ME(c)

ME(l)

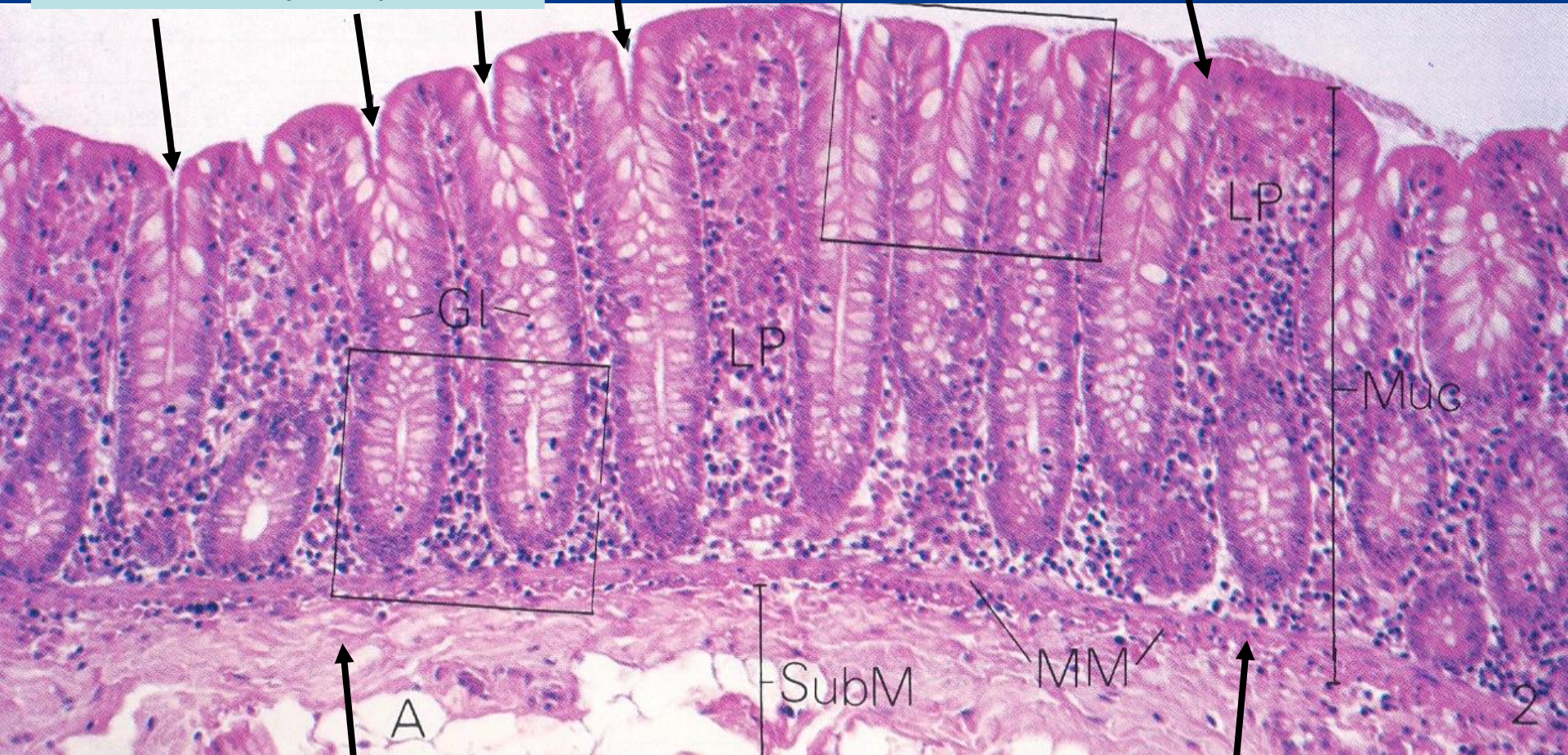
Tunica
muscularis
+ serosa



A vastagbél falszerkezete

Lamina propria mucosae (+
Lieberkühn krypták)

Epithelium mucosae

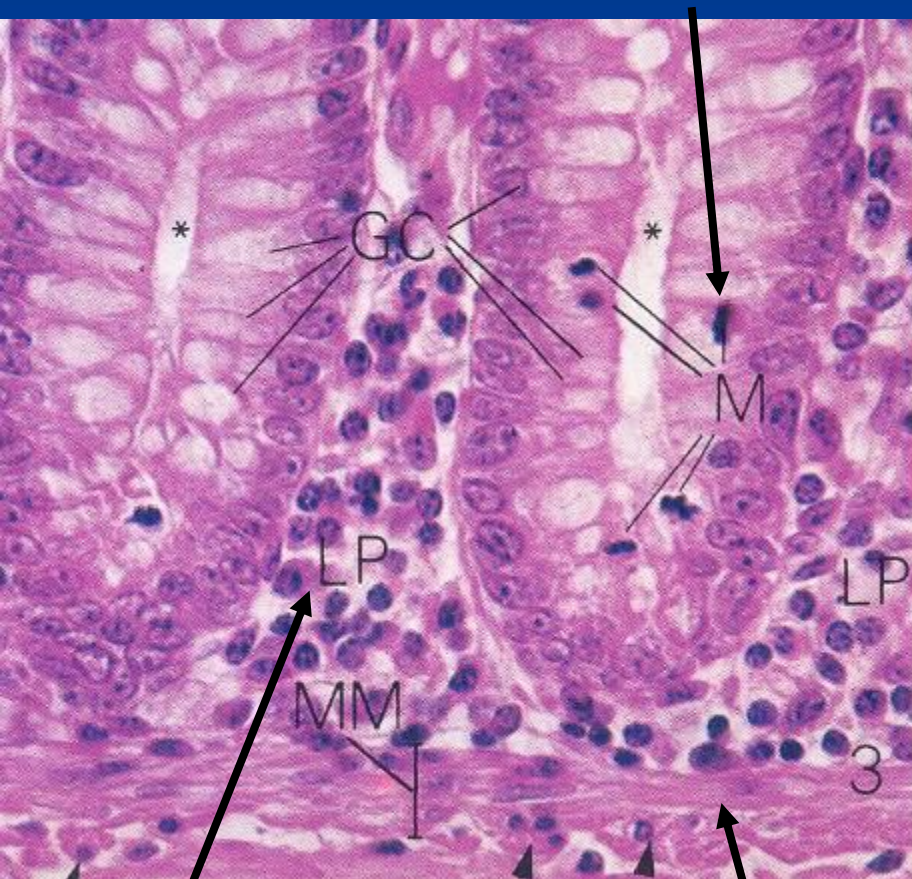


Tela submucosa

Tunica muscularis mucosae

A vastagbél falának szöveti szerkezet

Osztódó sejtek (M)

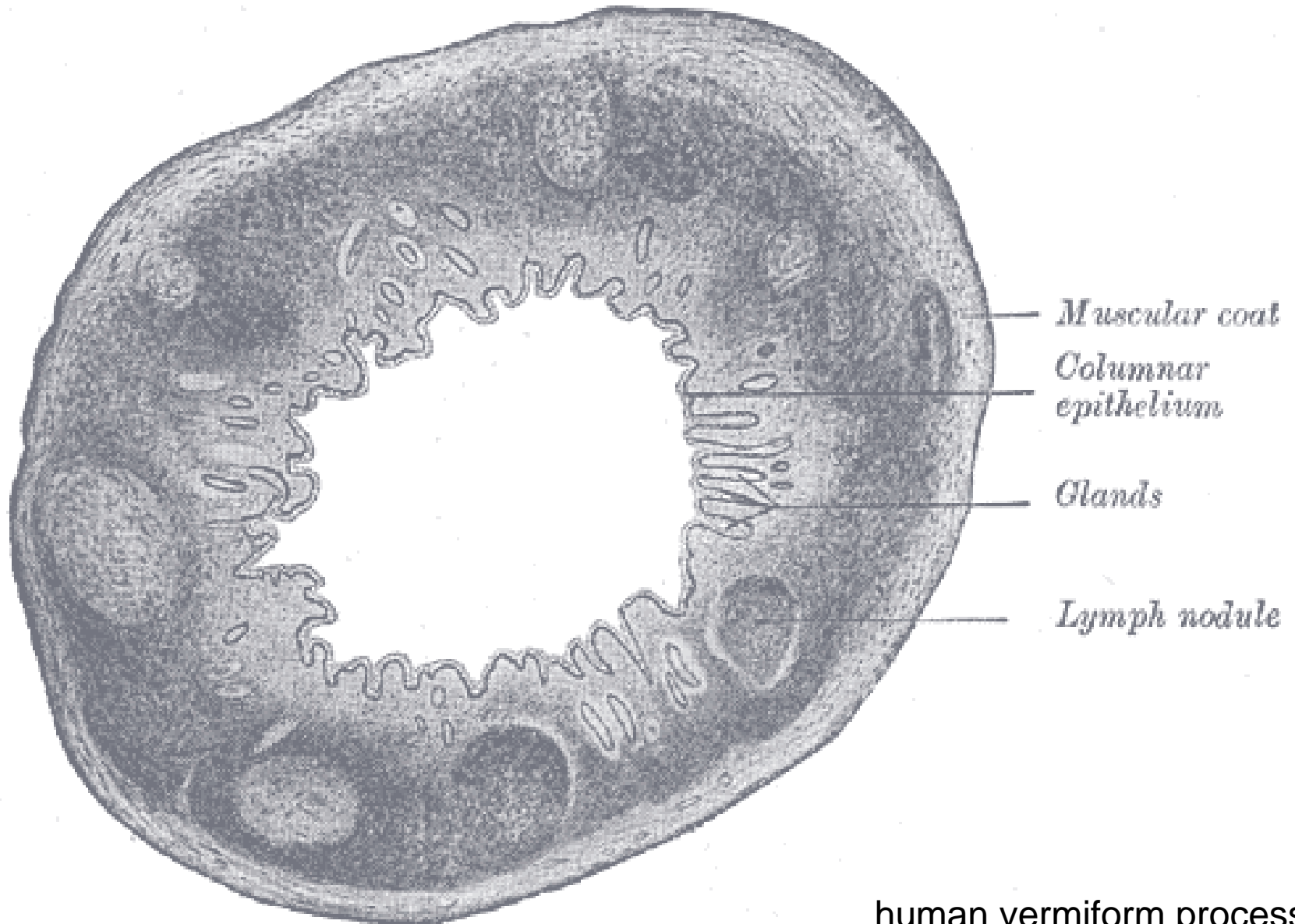


Lamina propria mucosae

Muscularis mucosae

kehelysejtek

Appendix Vermiformis

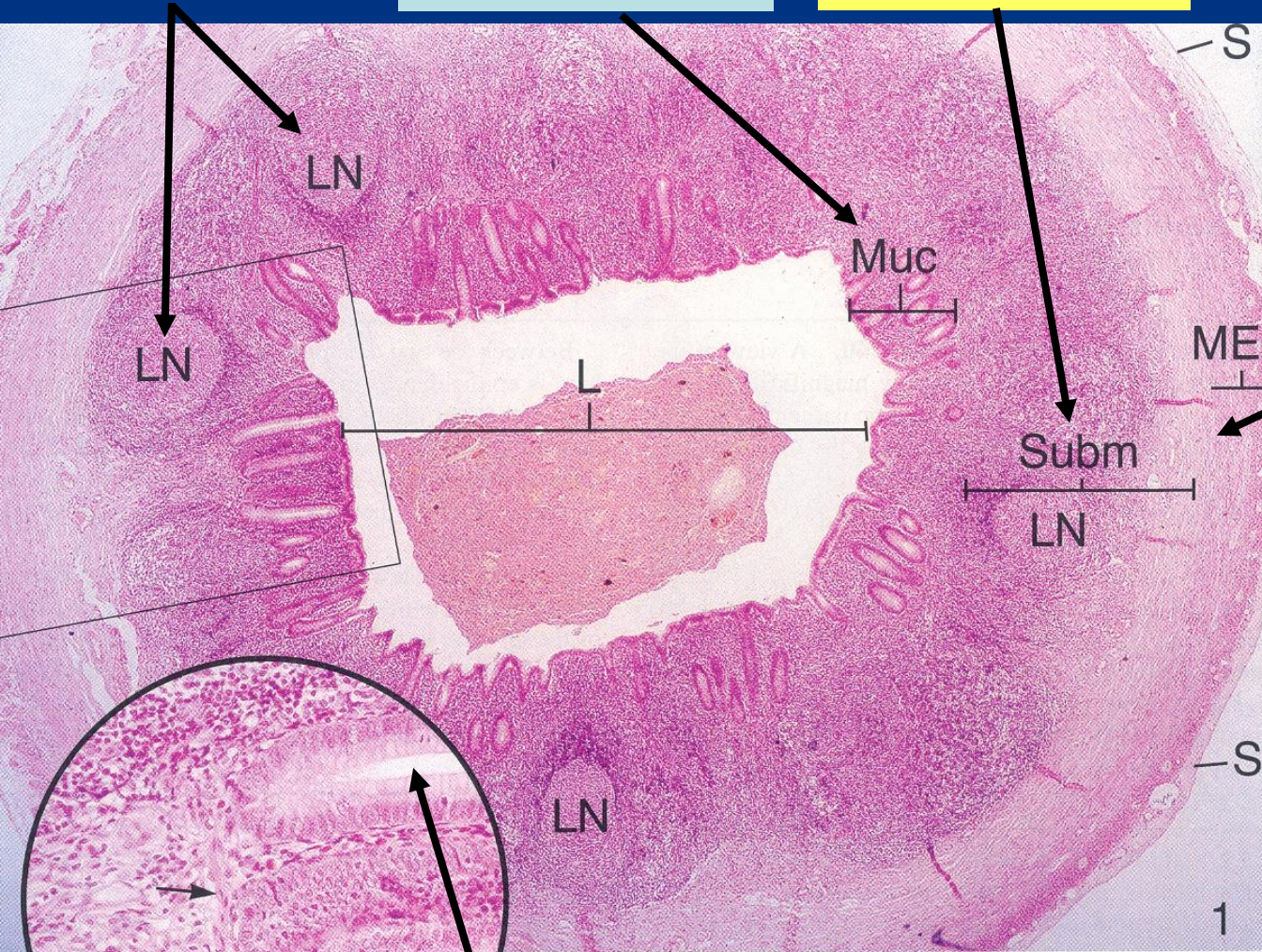


Appendix vermiformis

Folliculi
lymphatici

Tunica mucosa

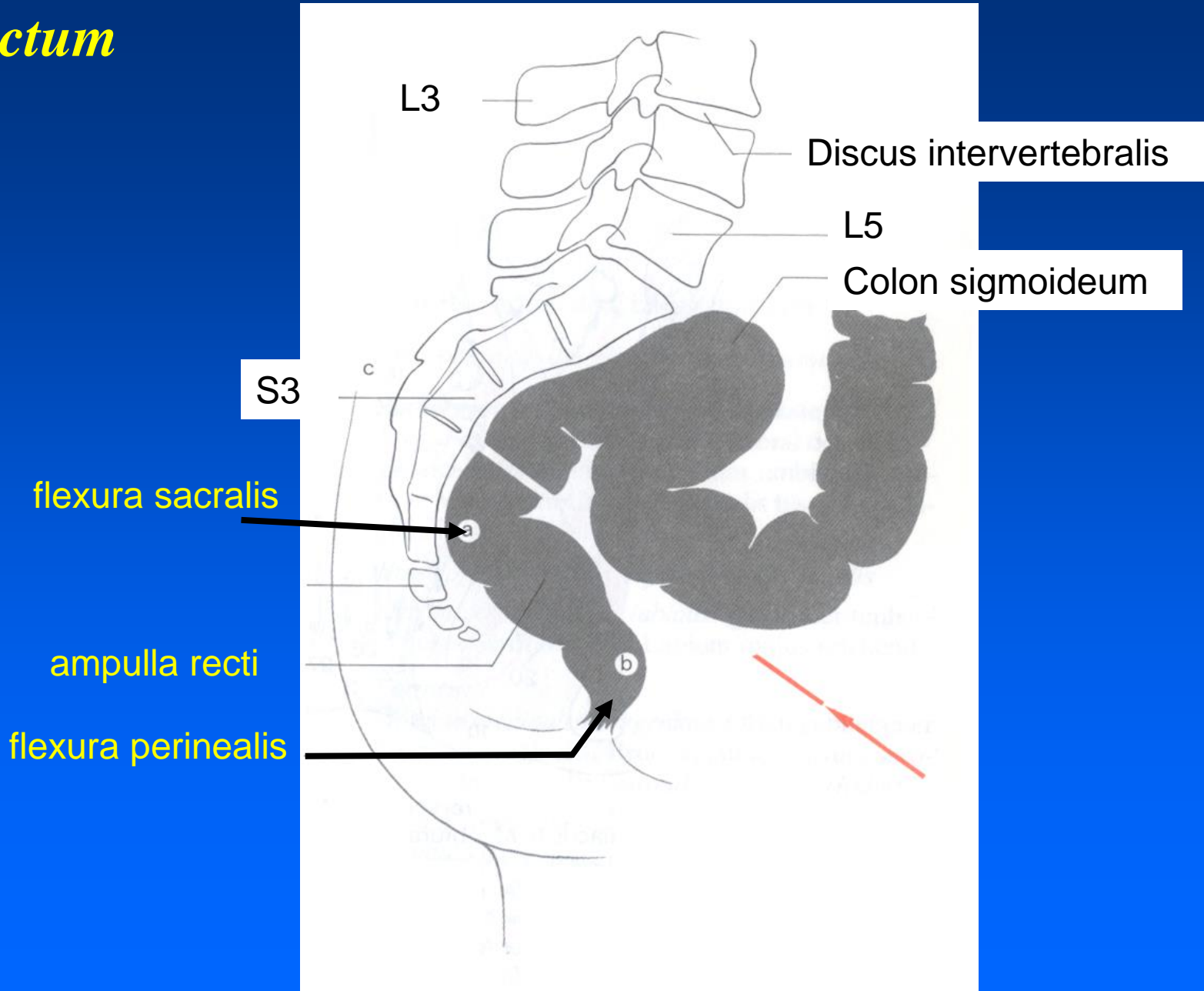
Tela submucosa



Tunica
muscularis
+ Serosa

Lieberkühn krypták

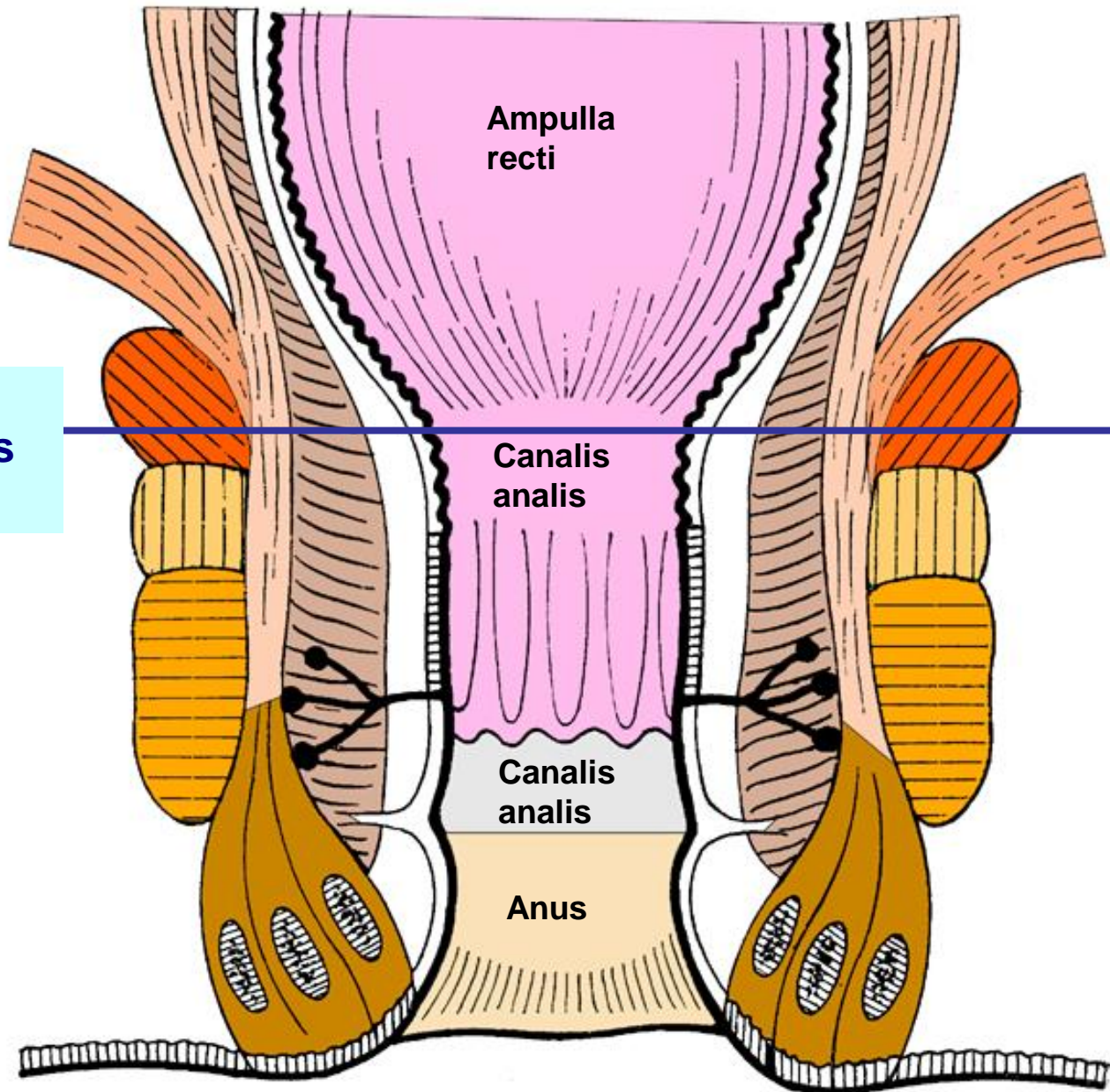
Rectum



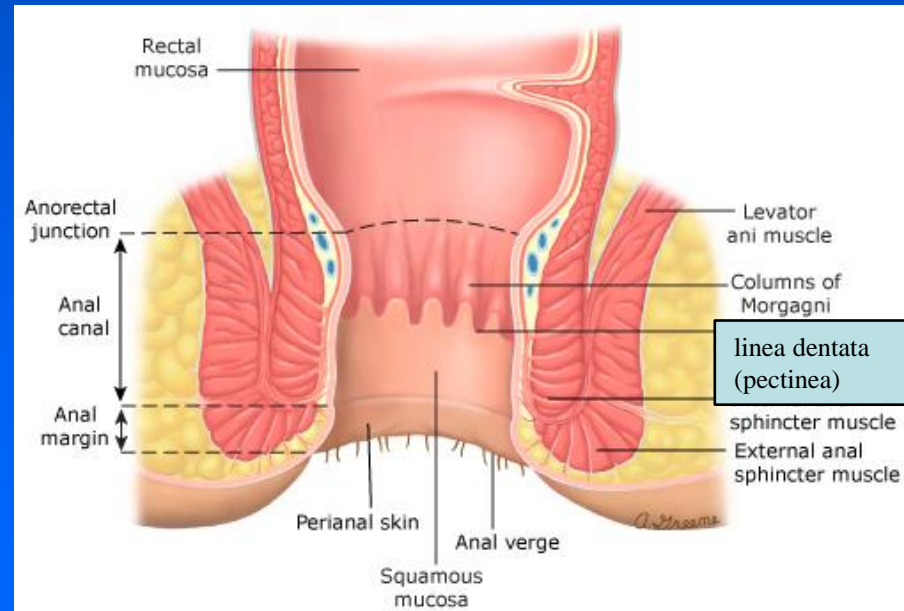
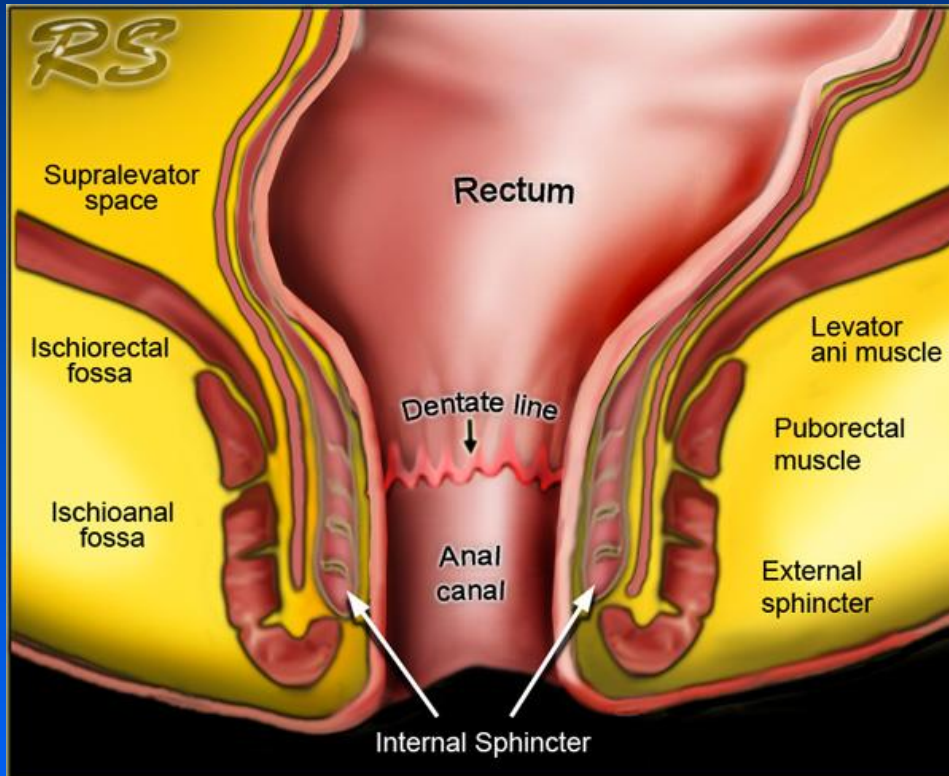
rectum
(ampulla recti)

Linea
anorectalis
(3-4,5 cm)

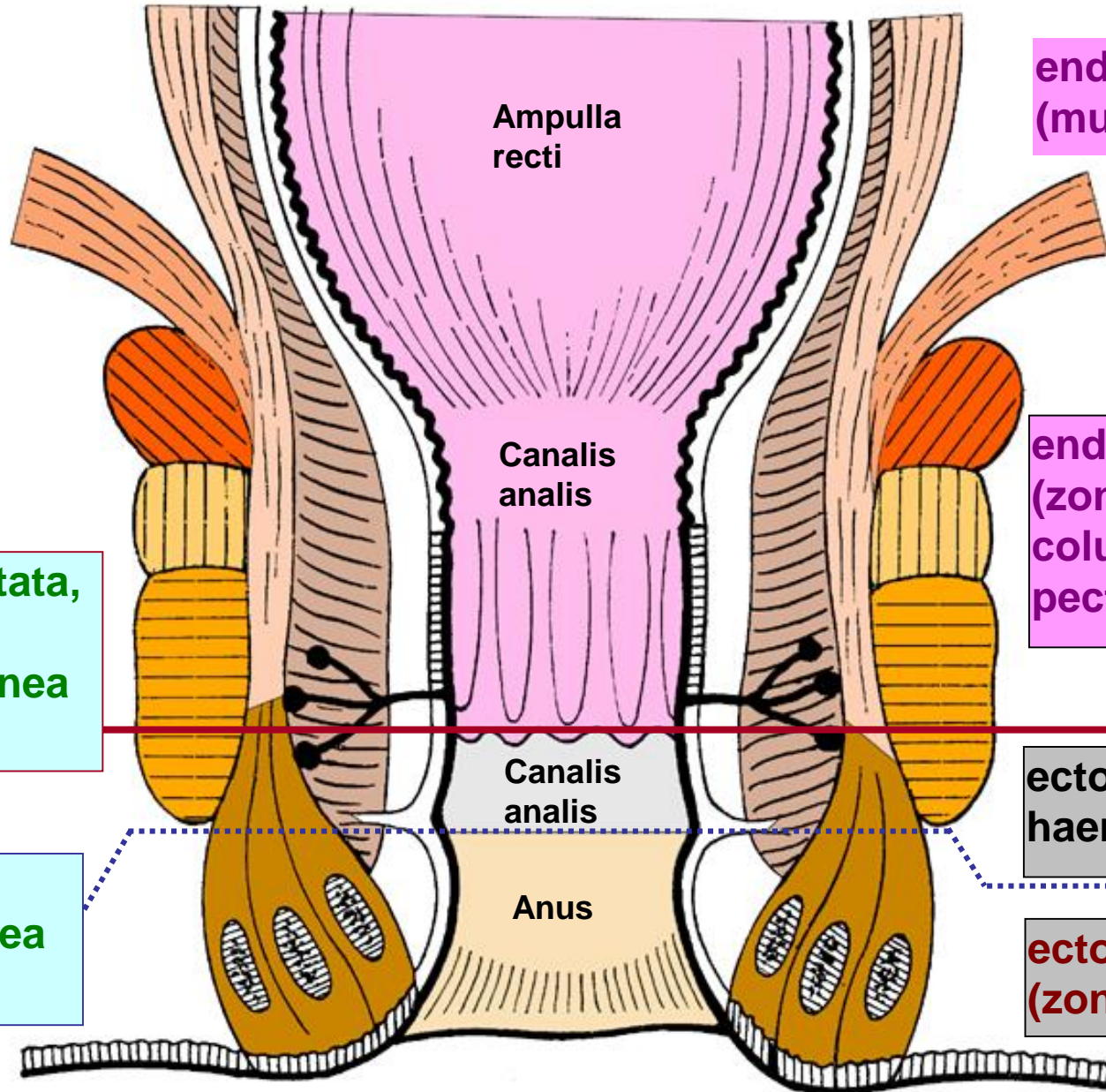
canalis analis
+ anus



Canalis analis



Szövettani és embriológiai határ



endoderma
(mucosa recti)

endoderma
(zona
columnaris)
pecten analis

Linea dentata,
pectinea,
mucocutanea
(2 cm)

ectoderma (zona
haemorrhoidalis)

Linea
anocutanea
(1 cm)

ectoderma
(zona cutanea)

Canalis analis

Rectum alsó szakasza:

1.) *zona columnaris*:

columna anales (Morgagni-féle redők):

nyálkahártya redők: többrétegű el nem szarusodó laphám
tasakok (sinus anales, Morgagni-féle tasakok): hám: egyrétegű
hengerhám

2.) *zona intermedia (haemorrhoida)*:

Morgagni-tasakok nincsenek

hám: többrétegű el nem szarusodó laphám

kötőszövet: szőrmentes faggyúmirigyek+ belső haemorrhoidalis plexus
sphincter ani internus: simaizom

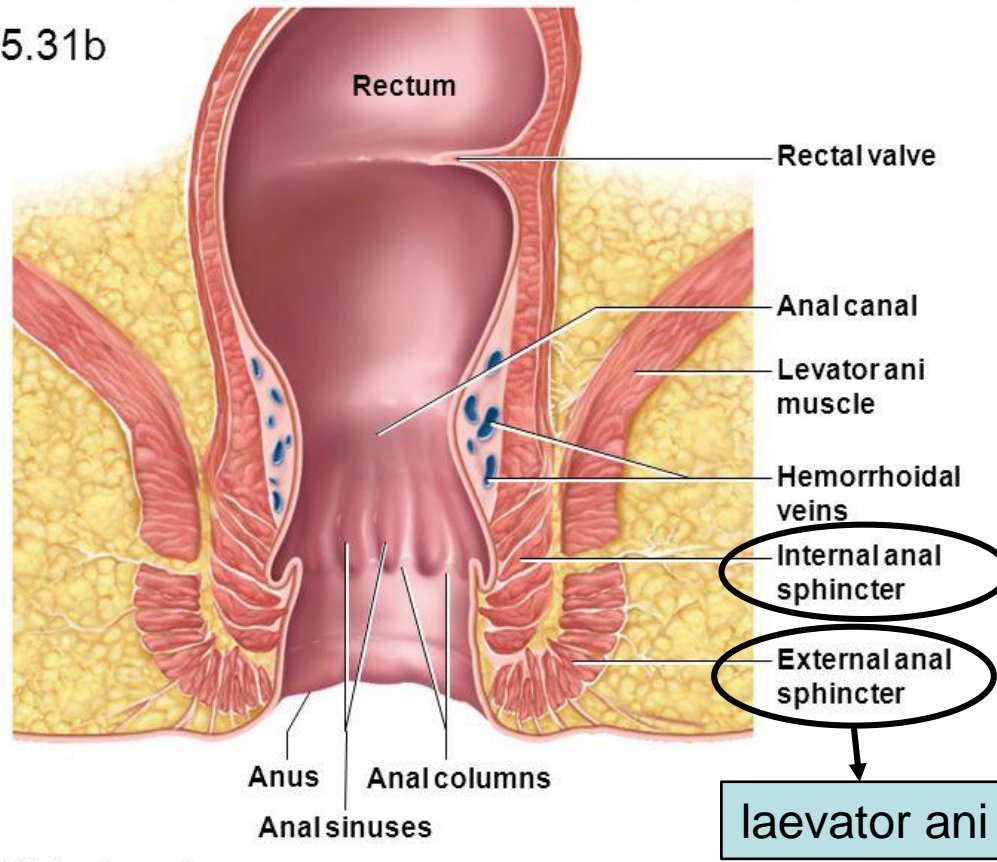
3.) *zona cutanea*: bőr

végbélnyílás körül: apokrin szekréciójú illatmirigyek

Anatomy of Anal Canal

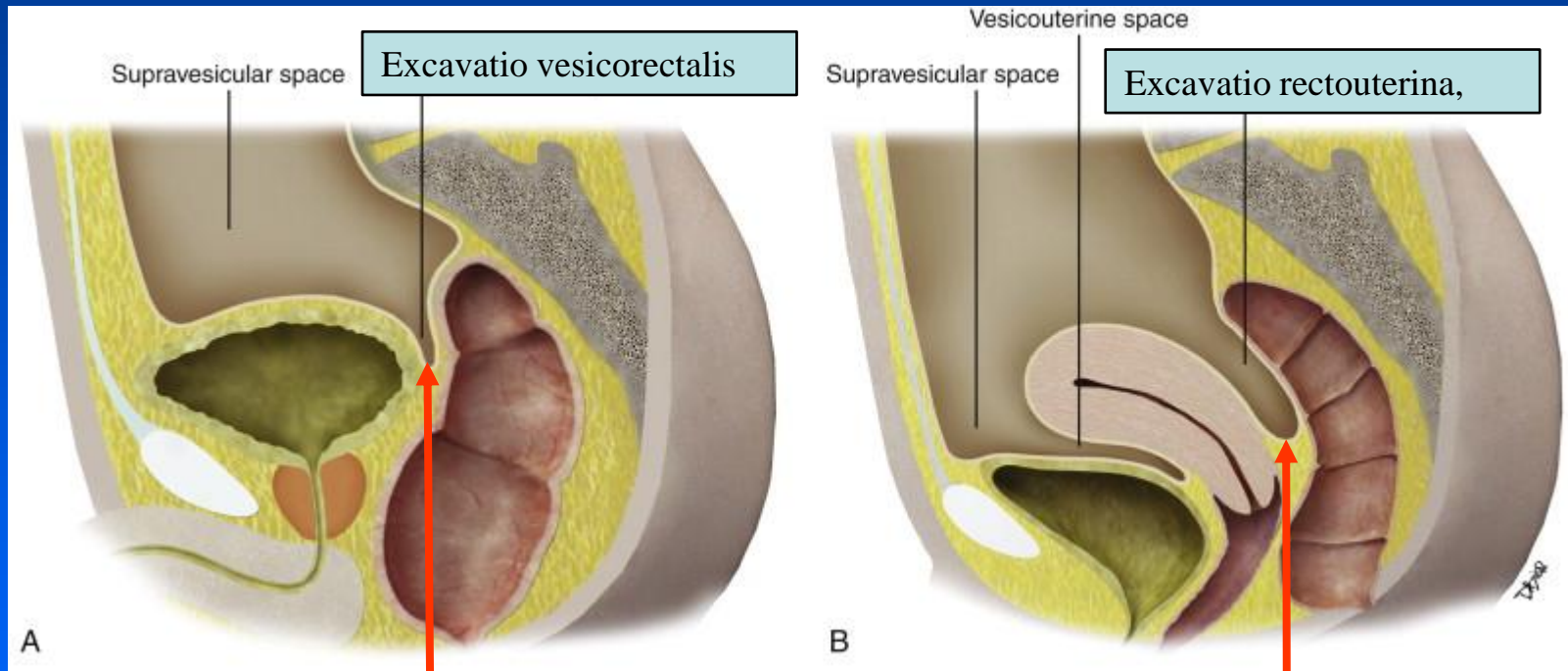
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Figure 25.31b



(b) Anal canal

A rectum hashártya viszonyai



A rectum vérellátása, vénás elvezetése

- arteria rectalis sup. (páratlan): ***a. mesenterica inf.-ból***
- arteria rectalis media (páros): ***a. iliaca int.-ből közvetlenül***
- arteria rectalis inf. (páros): ***a. pudenda int. (a. iliaca int.)***
- v. rectalis sup. (v. portae)
- vv. rectales media (v. cava inf.)
- vv. rectales inf. (v. pudenda int. ; v. cava inf.)

A rectum vérellátása

a. rectalis sup.
(a. mesenterica inf.)

a. rectalis media
(a. iliaca int.)

m. obturator int.

m. levator ani

a. pudenda int.

a. rectalis inf.
(a. pudenda int.)

m. sphincter ani ext.

canalis analis

Plica transversalis recti sup.

v. rectalis sup.

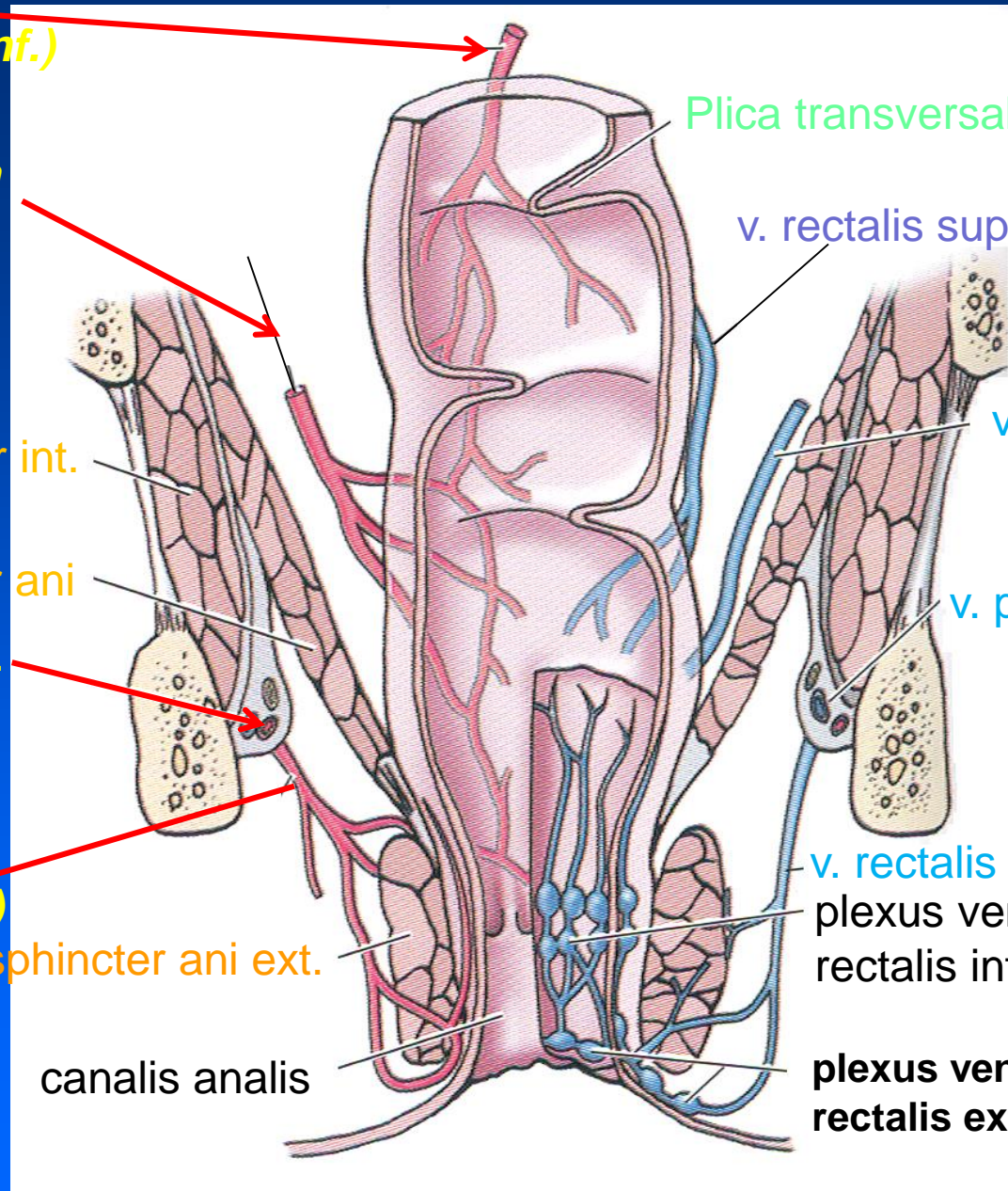
v. rectalis media

v. pudenda int.

v. rectalis inf.

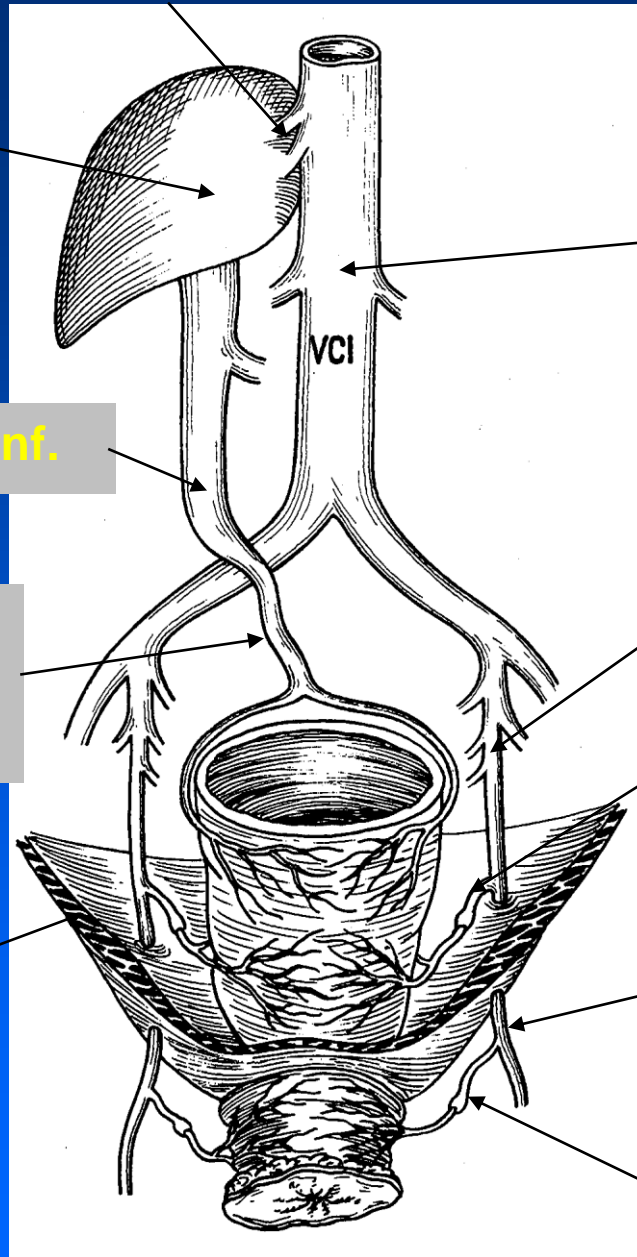
plexus venosus
rectalis int.

plexus venosus
rectalis ext.



venae hepaticae

máj



A rectum vénás elvezetése

vena cava inf.

Vena mesenterica inf.

Vena rectalis sup.
(páratlan; nincsenek billentyűk !)

vena iliaca interna

vena rectalis media
(páros; billentyűk !)

M. levator ani

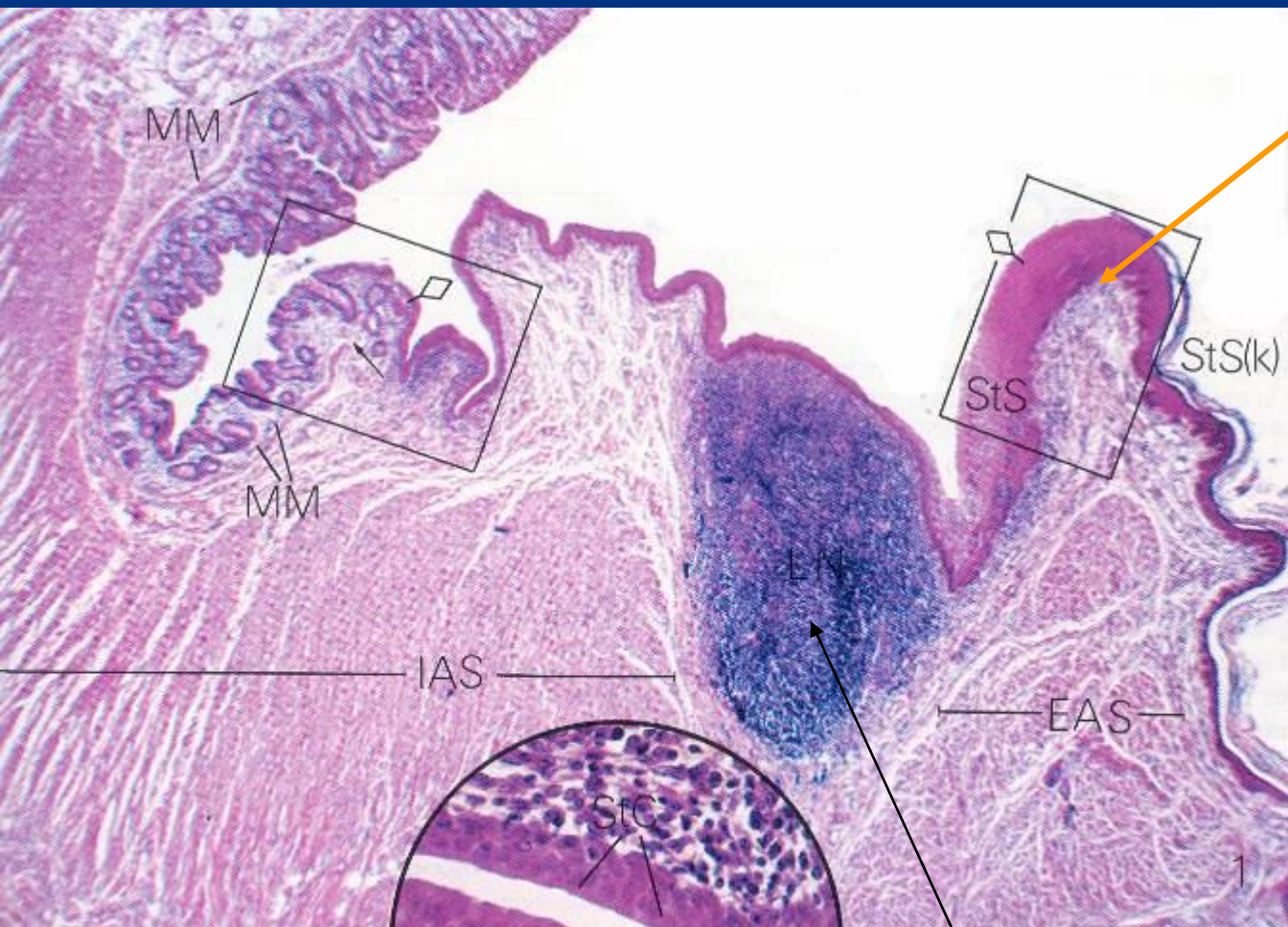
Vena pudenda int.

vena rectalis inf.
(páros; billentyűk !)

colon: egyrétegű
hengerhám

Anorectal átmenet

átmeneti zóna:
többrétegű henger -
(köb-)hám



Sphincter ani
internus

Nyirok
folliculusok

bőr: többrétegű
elszarusódó laphám

References

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3rd edition, Saint Louis: Mosby.

Richard Coico, Geoffrey Sunshine, Eli Benjamini (2003).

Immunology: a short course.

New York: Wiley-Liss.

Abraham L. Kierszenbaum (2002).

Histology and cell biology: an introduction to pathology.

St. Louis: Mosby.