

ANATOMIJA

MUSCULI TRUNCII

dr Milena Đorđević

MM. TRUNCI

MIŠIĆI VRATA (Mm. coli)

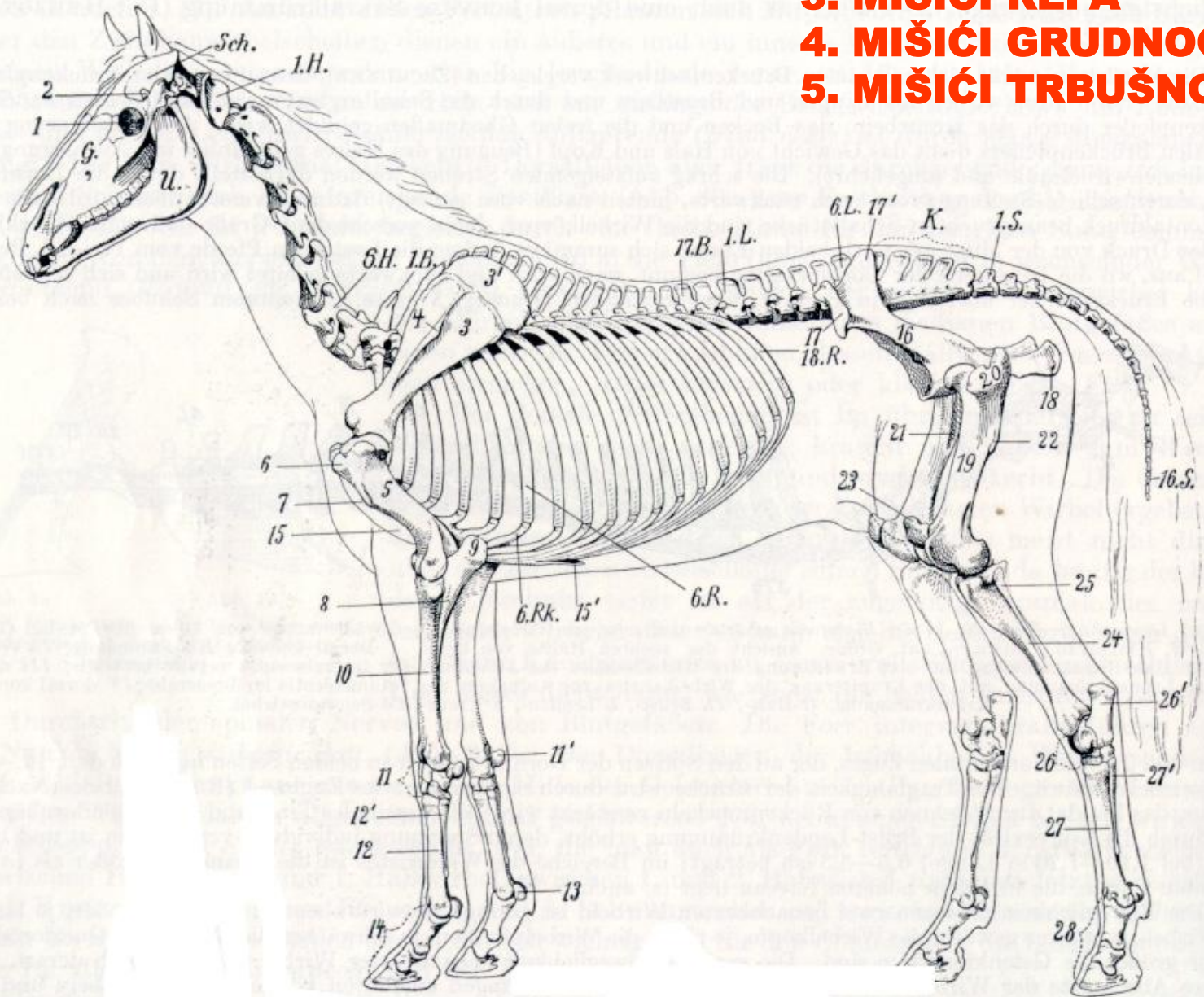
MIŠIĆI LEĐA I SLABINA (Mm. dorsi)

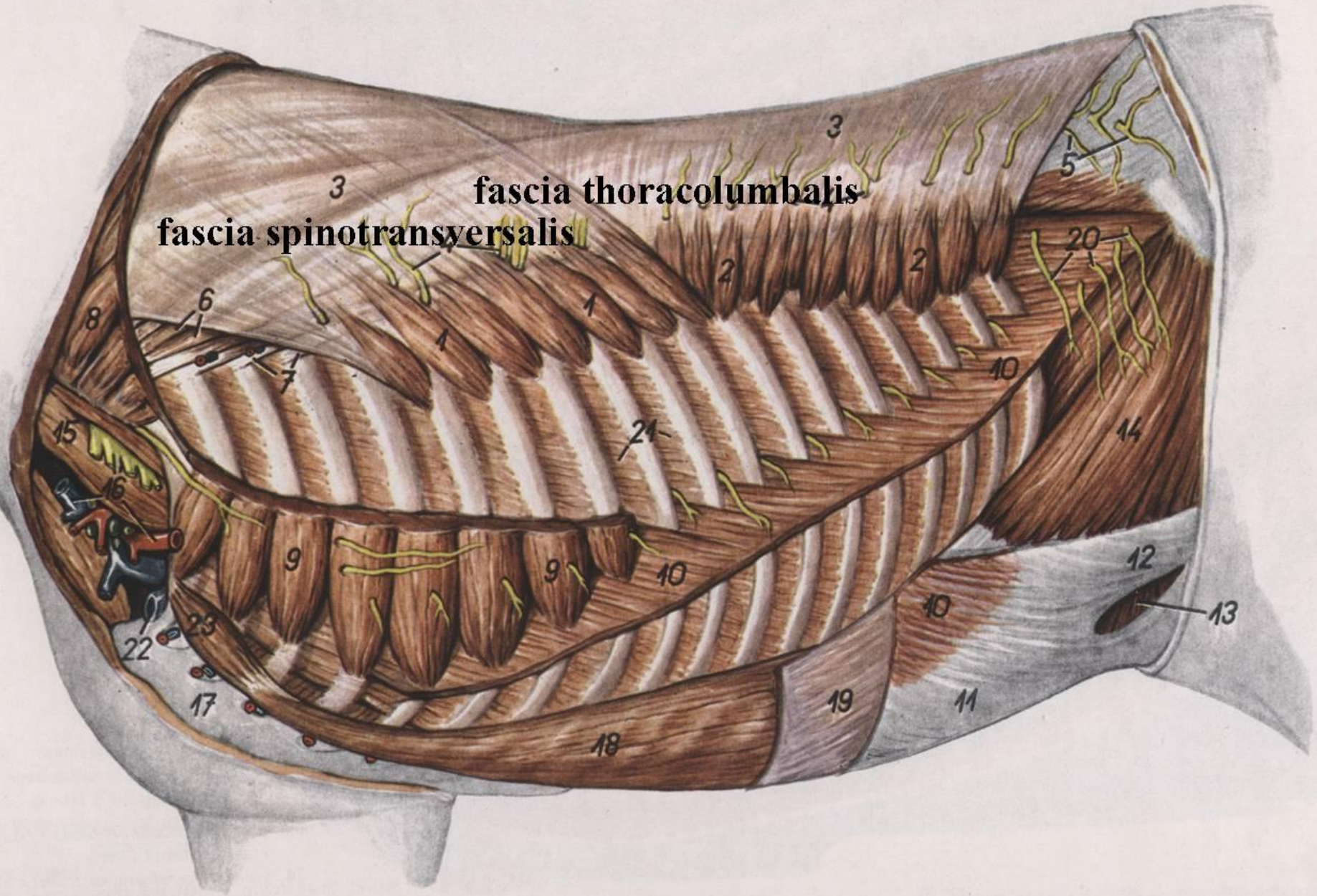
MIŠIĆI REPA (Mm. caudae s. coccygis)

MIŠIĆI GRUDNOG KOŠA (Mm. thoracis)

MIŠIĆI TRBUŠNOG ZIDA (Mm. abdominis)

1. MIŠIĆI VRATA
2. MIŠIĆI LEĐA I SLABINA
3. MIŠIĆI REPA
4. MIŠIĆI GRUDNOG KOŠA
5. MIŠIĆI TRBUŠNOG ZIDA





Sl. M. serratus dorsalis cranialis (1) et M. serratus dorsalis caudalis (2)

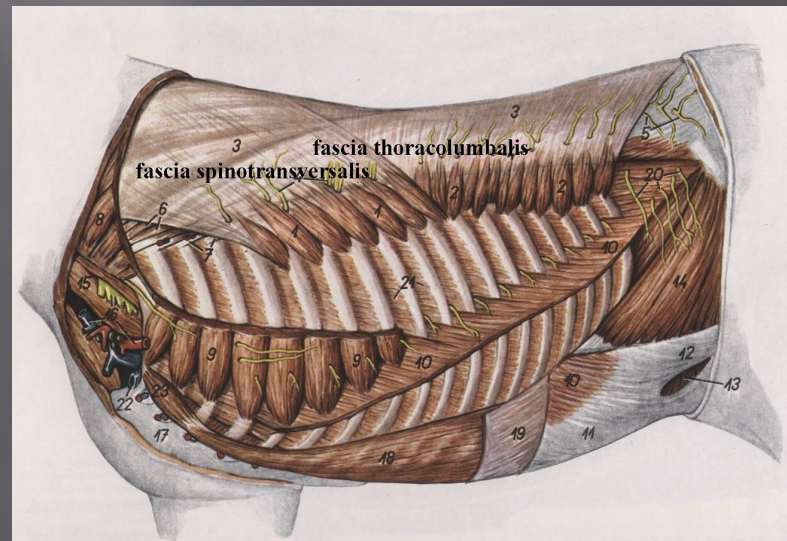
Duboka fascija trupa

Ima sledeće delove:

1. Fascia spinotransversalis
2. Fascia thoracolumbalis
3. Tunica flava abdominis

FASCIA SPINOTRANSVERSALIS

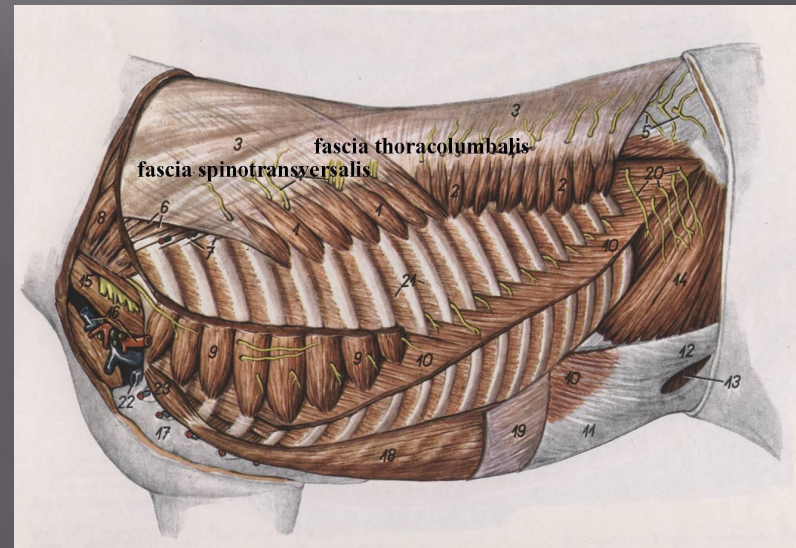
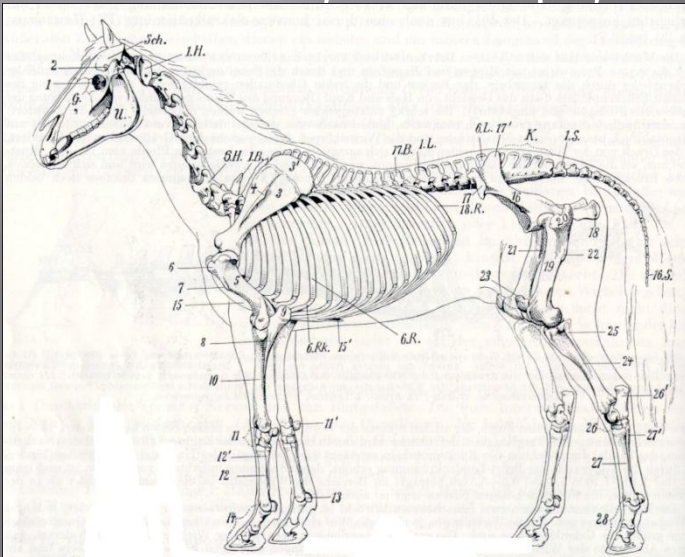
- Počinje na processi spinosi T1-10 i spaja se sa istoimenom fascijom druge strane.
- Pričvršćuje se za prvih 7-8 rebara i processi transversari Th7-T8
- Sa ove fascije počinje m. splenius
- Pruža se ventralno između m. longissimus thoracis i m. iliocostalis thoracis
- Lig. dorsoscapulare



Sl. M. serratus dorsalis cranialis (1) et M. serratus dorsalis caudalis (2)

FASCIA THORACOLUMBALIS

- Pruža se od grebena leđa do mišića sapi
- Prelazi preko M. longissimus thoracis
- Pripaja se za vrhove processi spinosi T ,L i S, za lig. supraspinale, tuber coxae, tuber sacrale i crista iliaca
- Kaudalno prelazi u fascia glutea
- U predelu Th7 prelazi na M. rhomboideus i cartilago scapulae
- Kranijalno se spaja sa fascia superficialis vrata



Sl. M. serratus dorsalis cranialis (1) et M. serratus dorsalis caudalis (2)

MIŠIĆI LEĐA I SLABINA

M. trapezius thoracis

M. latissimus dorsi

M. rhomboideus thoracis

M. serratus ventralis

M. serratus dorsalis

M. iliocostalis

M. longissimus

M. spinalis

Mm. multifidi

M. quadratus lumborum

M. psoas major

M. psoas minor

Fasciae:

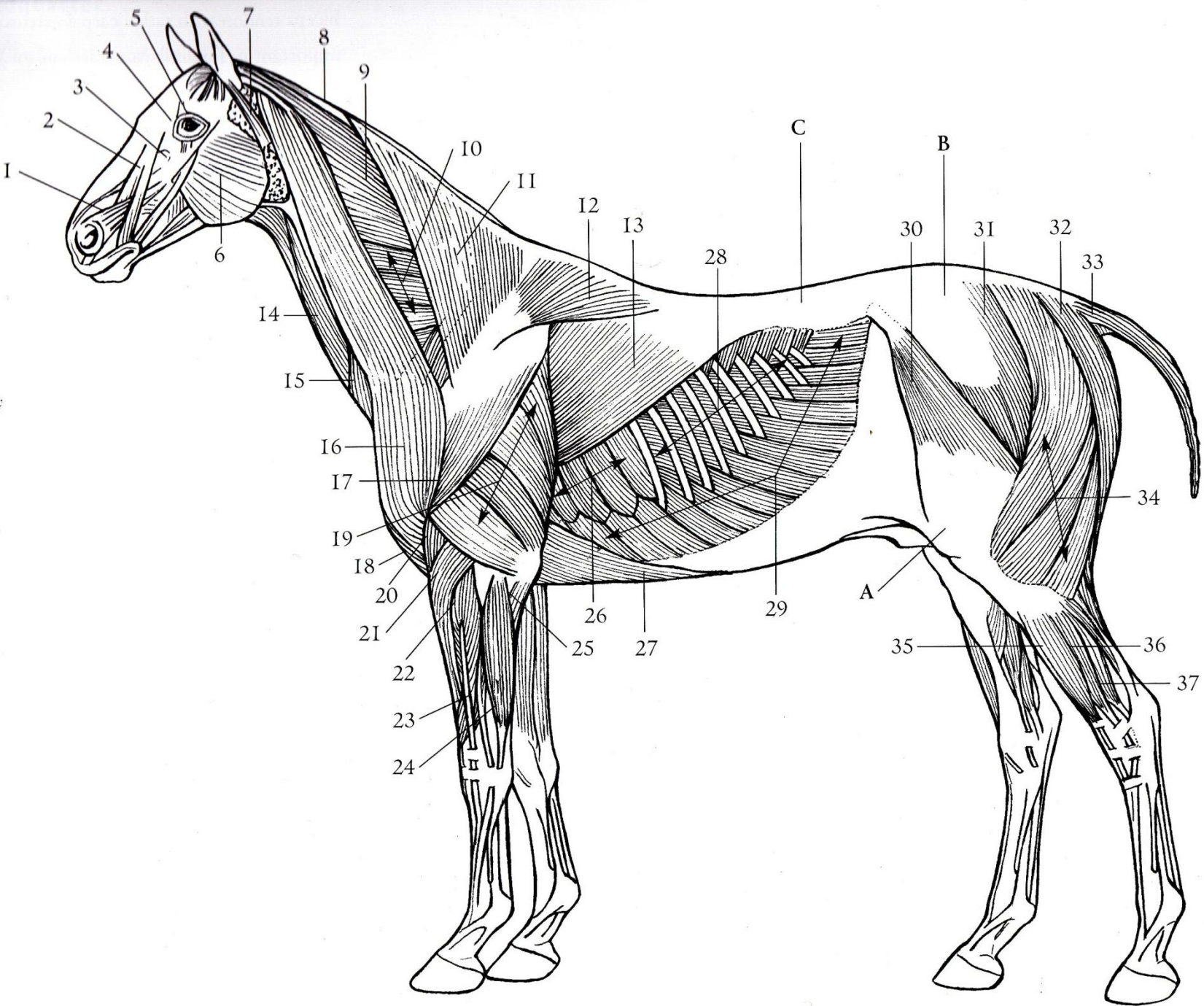
Fascia superficialis (M.cutaneus trunci)

Fascia profunda:

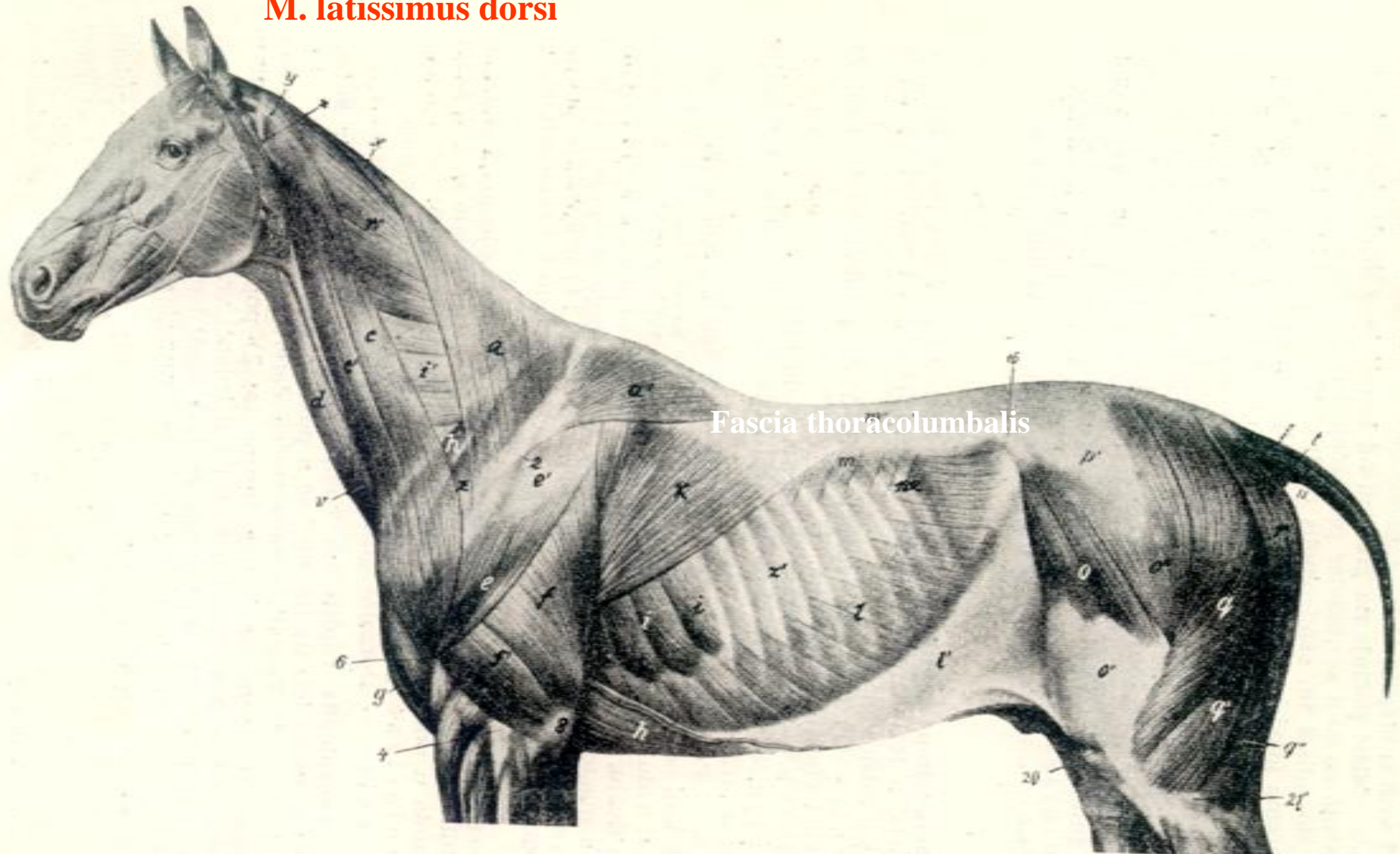
-Fascia thoracolumbalis

-Fascia spinotransversalis

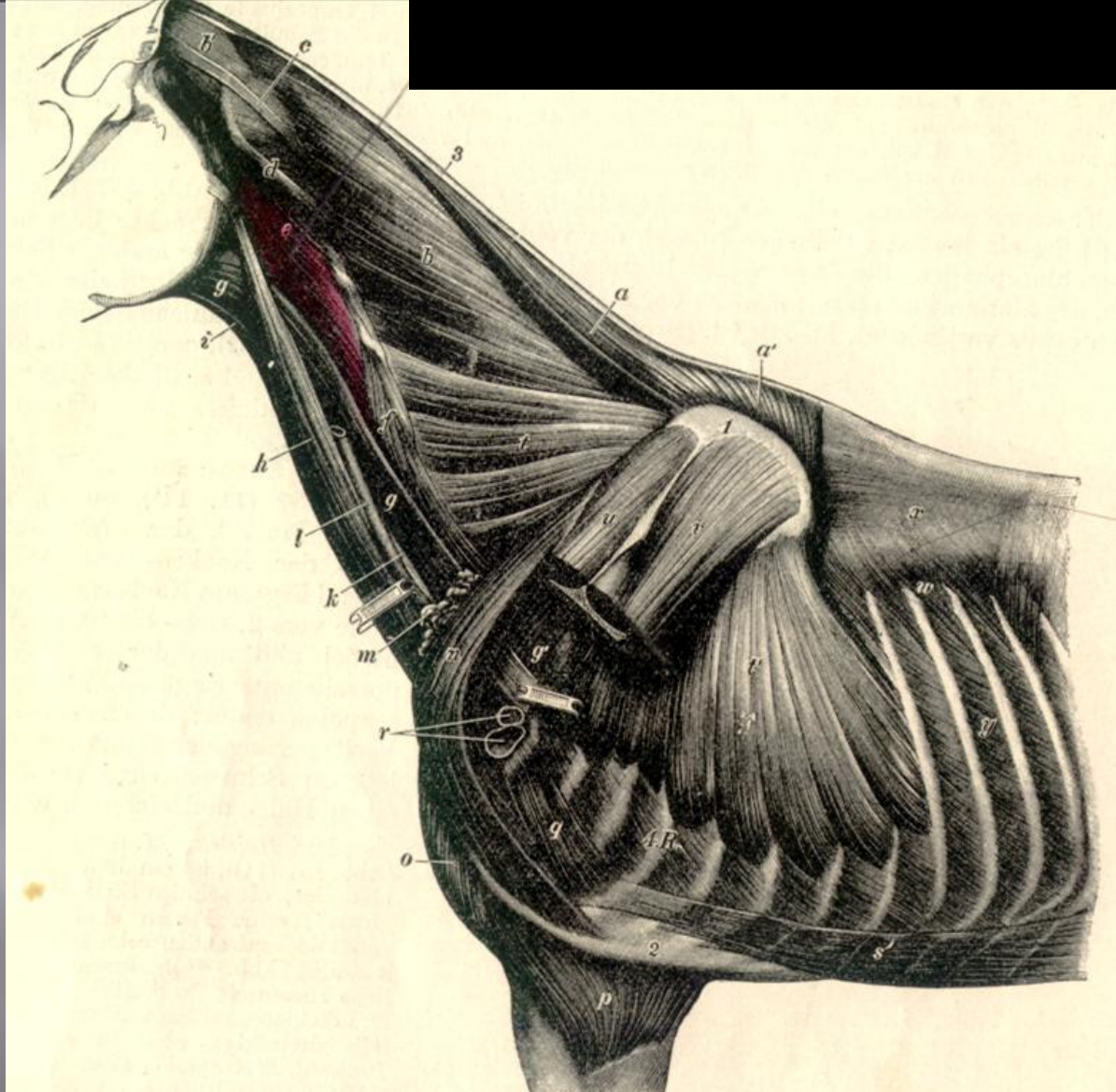
-Tunica flava abdominis



M. trapezius thoracis
M. latissimus dorsi

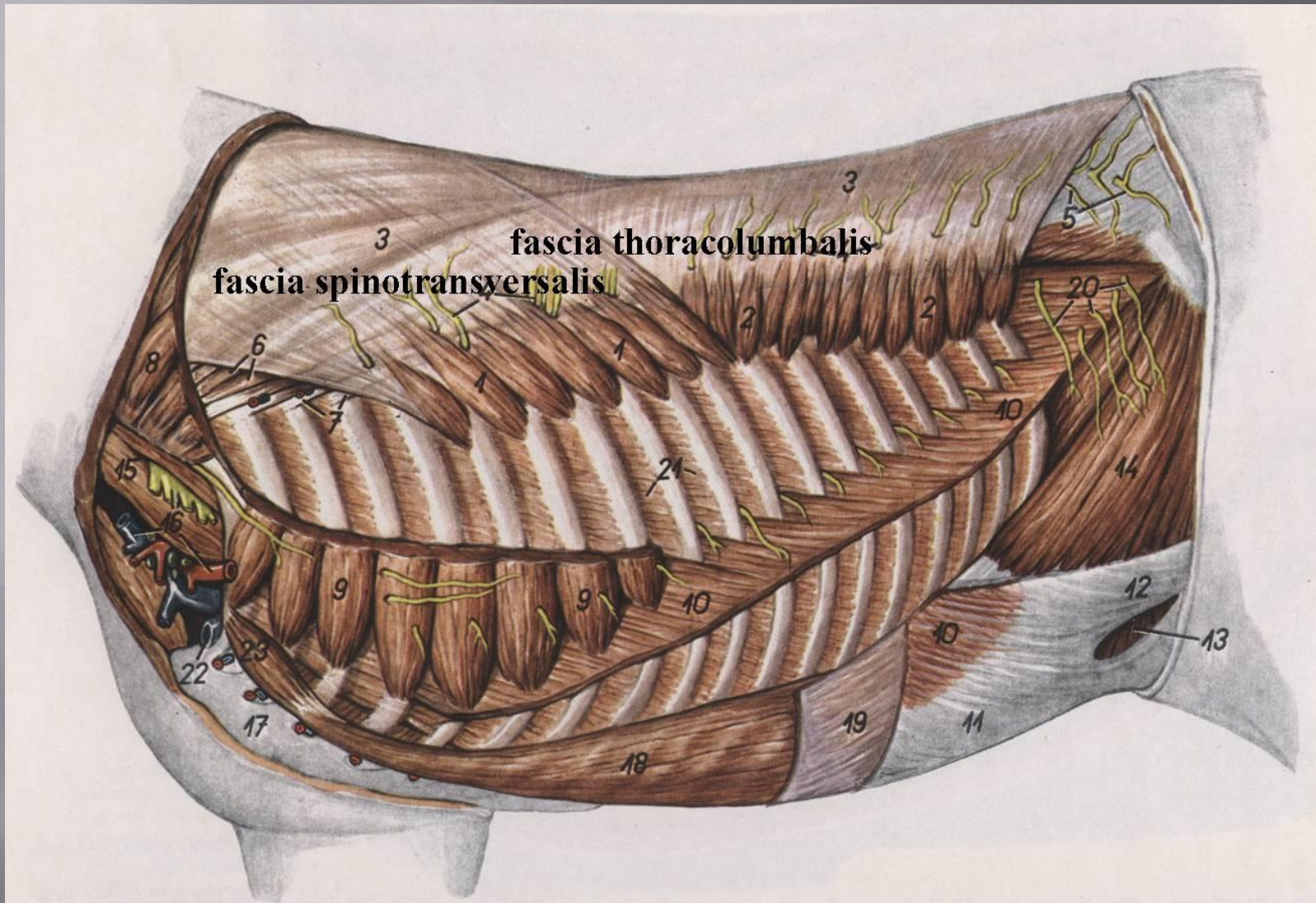


Sl. Mišići u prvom sloju posle skidanja kože i površne fascije trupa



Sl. Mišići u drugom sloju posle skidanja *M. trapezius thoracis* i *M. latissimus dorsi*

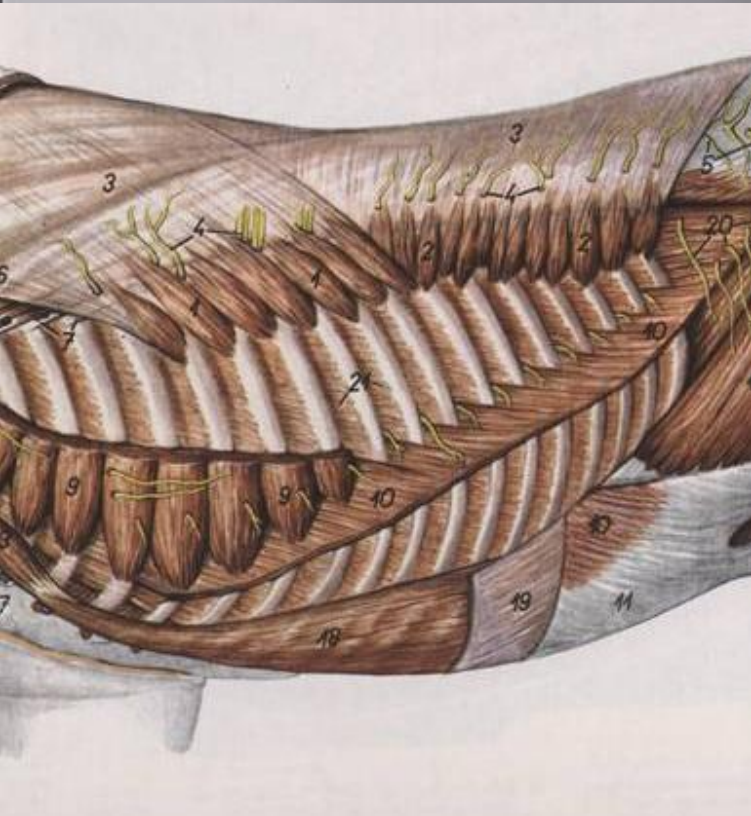
M. SERRATUS DORSALIS (konj)



Sl. M. serratus dorsalis cranialis (1) et M. serratus dorsalis caudalis (2)

Sl. Mišići u trećem sloju posle skidanja lopatice i M. rhomboideus-a

M. SERRATUS DORSALIS



tanak, pločast mišić, leži lateralno na dorzalnom zidu grudnog koša

1/ M. serratus dorsalis cranialis

- počinje u *Fascia spinotransversalis* i vrhovima trnastih izdanaka leđnih pršljenova
- završava zubasto na kranijalnom rubu rebara: konj 5/6 -11/12

goveda 5-8

2/ M. serratus dorsalis caudalis

- počinje u *Fascia thoracolumbalis* i vrhovima trnastih izdanaka slabinskih pršljenova
- završava zubasto na kaudalnom rubu rebara: konj 11-18

goveda 10-13

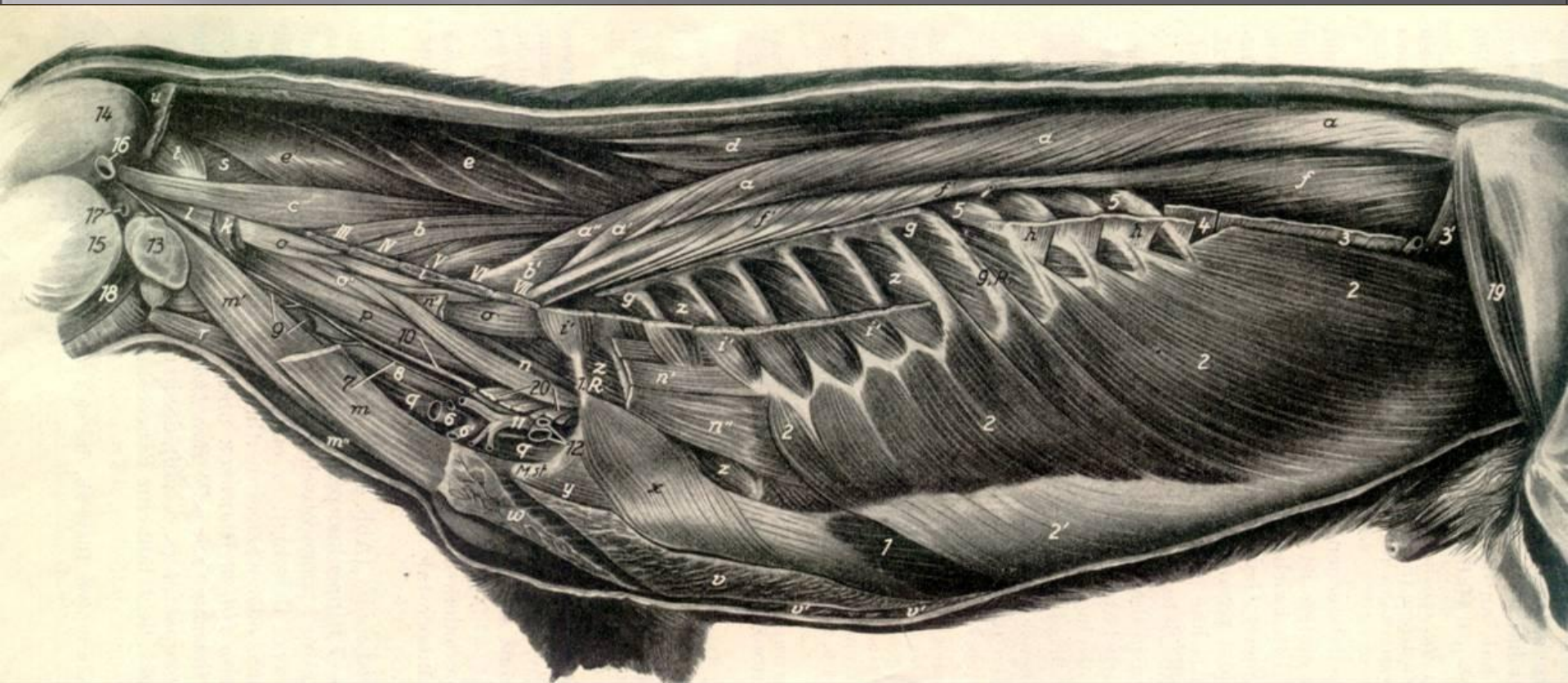
Funkcija: M. serratus dorsalis cranialis – pri udisaju
M. serratus dorsalis caudalis – pri izdis.

M. SERRATUS DORSALIS



M. serratus ventralis

Sl. Mišići u drugom sloju posle skidanja prednjeg ekstremiteta i uklanjanja *M. trapezius thoracis* i *M. latissimus dorsi*



M. ILIOCOSTALIS (f)

- dug uzan, pljosnat mišić protkan tetivnim vlaknima
- građen od brojnih mišićnih segmenata koji su tesno međusobno spojeni
- kranioventralno pruža se od *Crista iliaca* (karlične kosti) do vratnih pršljenova

M. ILIOCOSTALIS

Slabinski deo (pars lumborum) – **M. iliocostalis lumborum**

Leđni deo (pars thoracis) – **M. iliocostalis thoracis**

lateralna (površna tetiva)

medijalna (duboka tetiva)

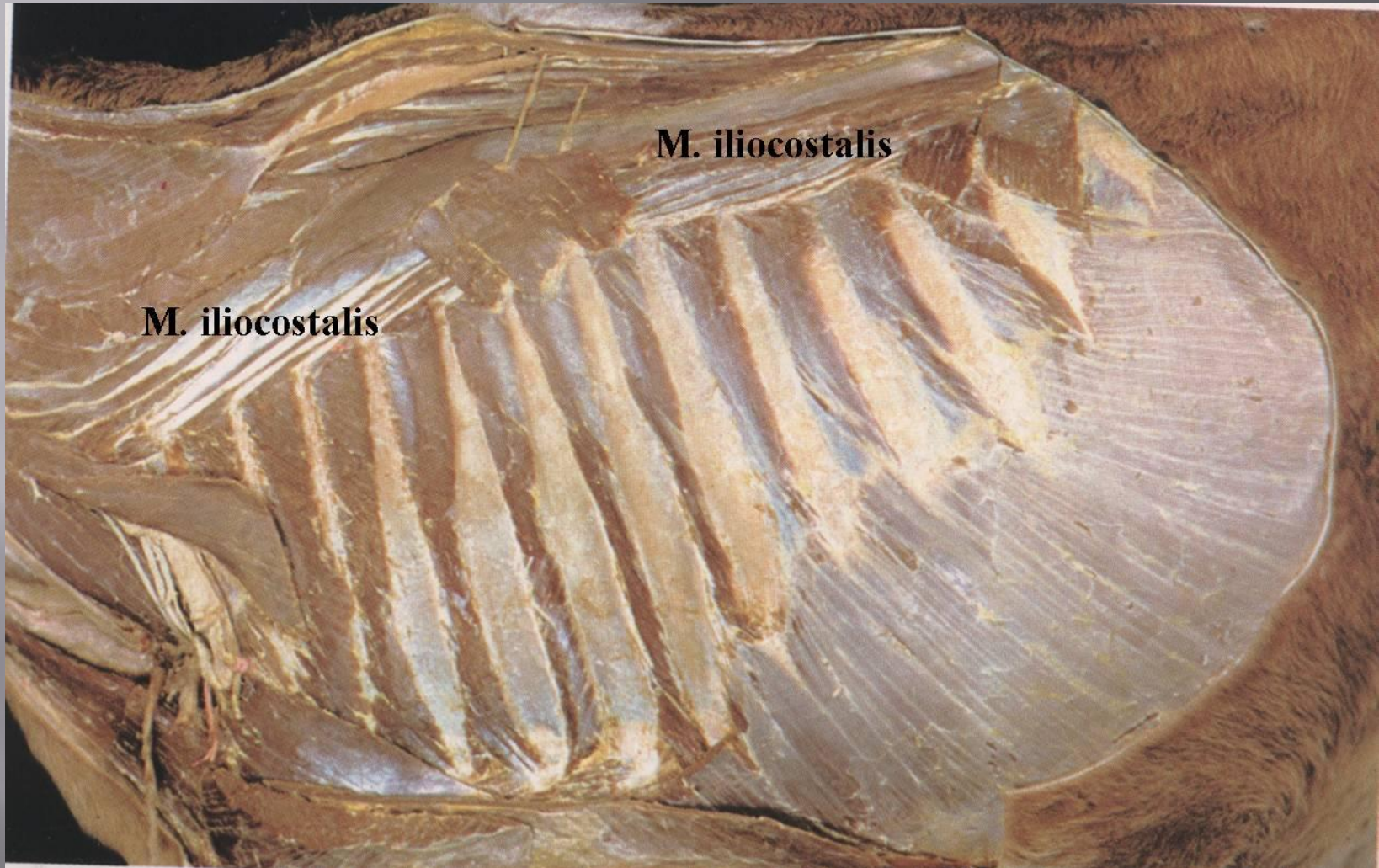
Vratni deo (pars cervicis) – **M. iliocostalis cervicis**

Funkcija: 1/ učvršćuje slabinski i torakalni deo kičmenog stuba

2/ pri jednostranom delovanju savija kičmeni stub u stranu

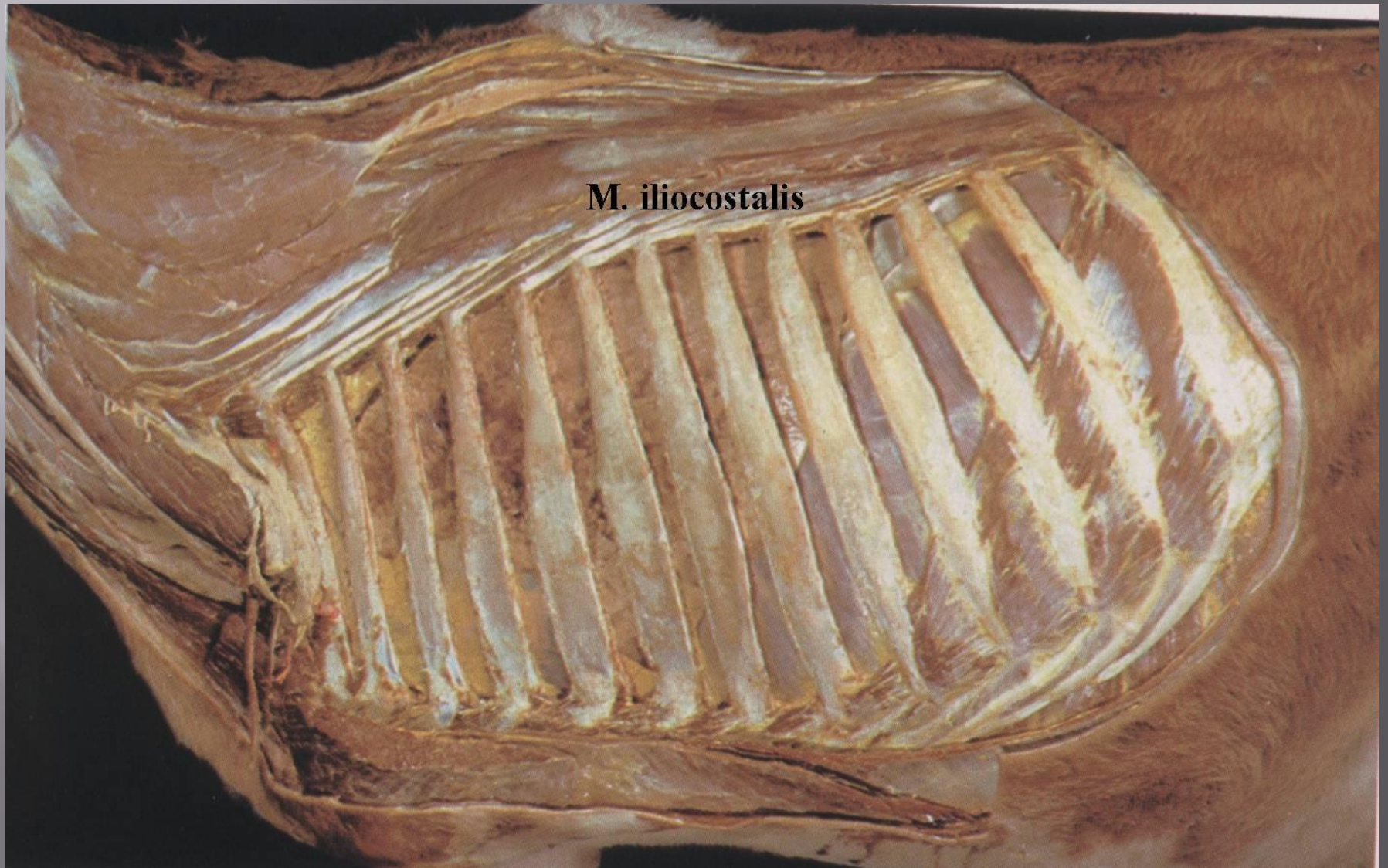
3/ vuče rebra kaudalno (pomaže u izdisaju)

M. ILIOCOSTALIS

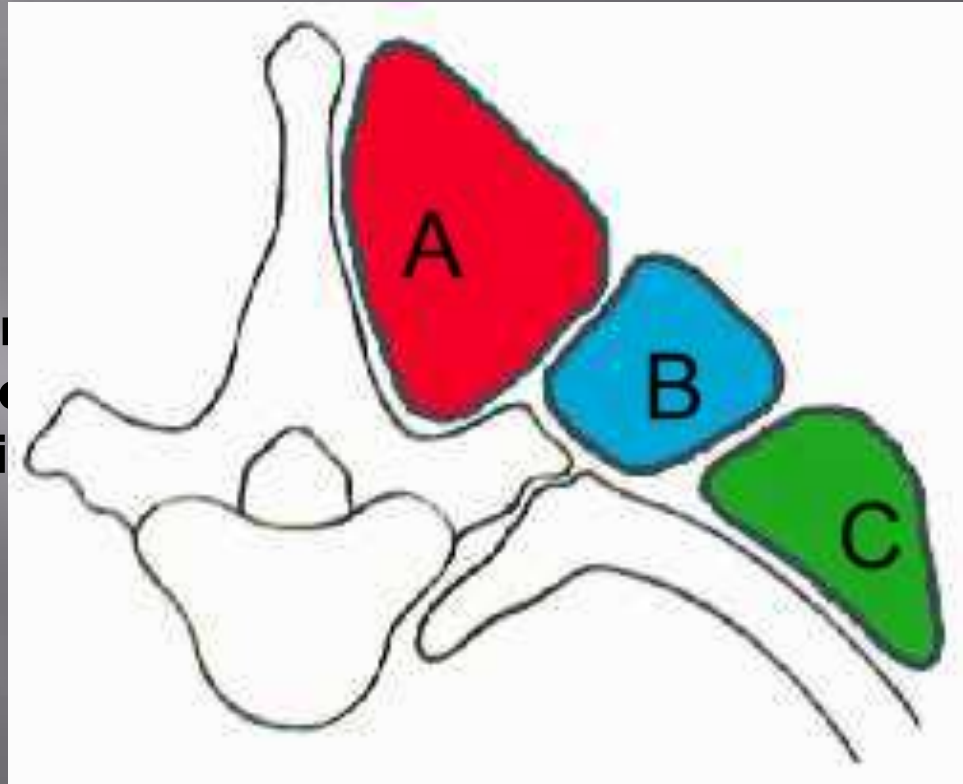


Sl. Mišići u sloju posle skidanja prednjeg ekstremiteta i uklanjanja:
M. trapezius thoracis, *M. latissimus dorsi* i *M. serratus ventralis-a*

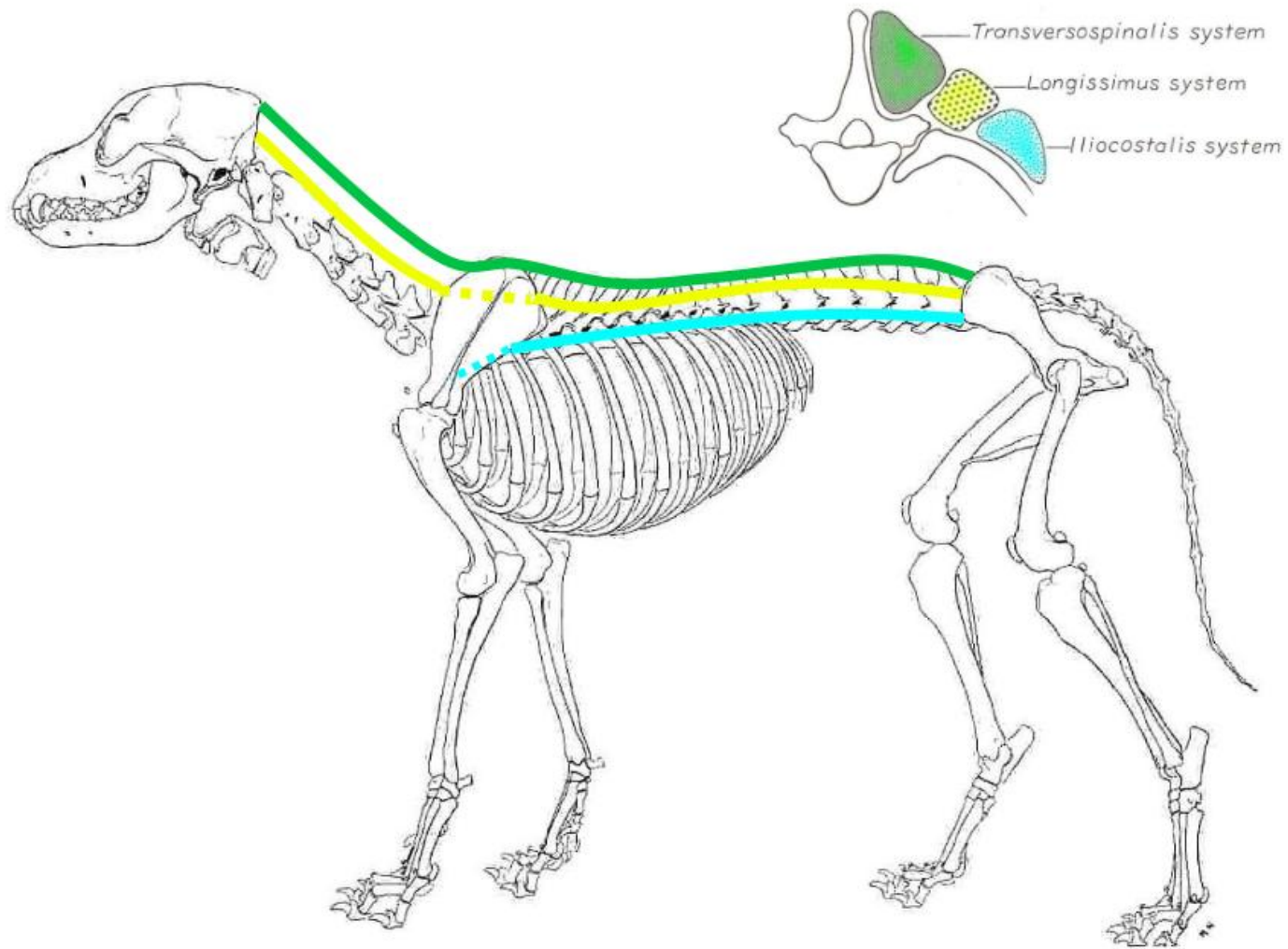
M. ILIOCOSTALIS



- **A - Spinalis & semispinalis thoracis**
- **B - Longissimus thoracis pars posterior**
- **C - Iliocostalis thoracis**

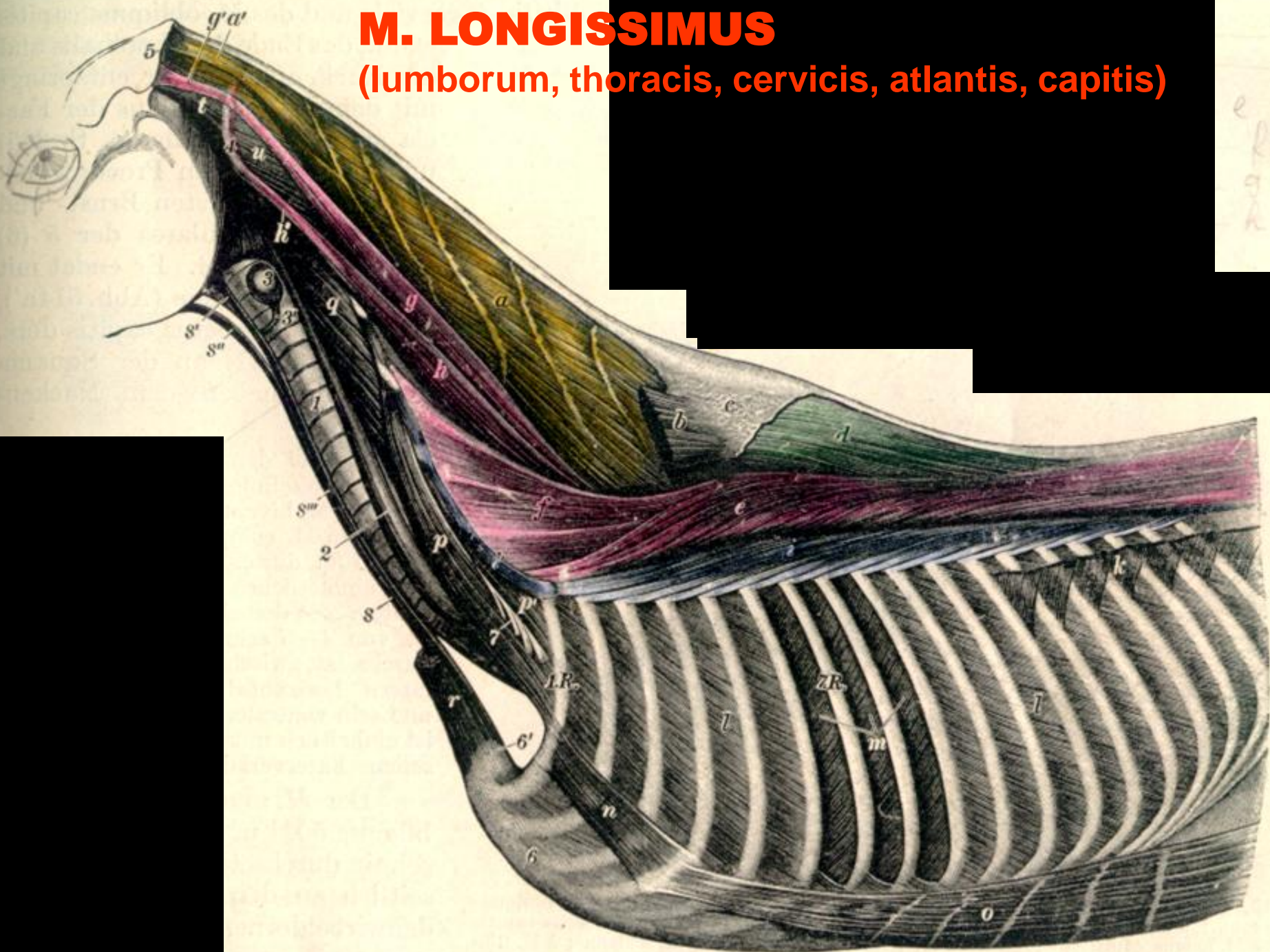


Cross section through the spine and the left side of the ribs to show the relative positions of the epaxial muscles



M. LONGISSIMUS

(lumborum, thoracis, cervicis, atlantis, capitis)



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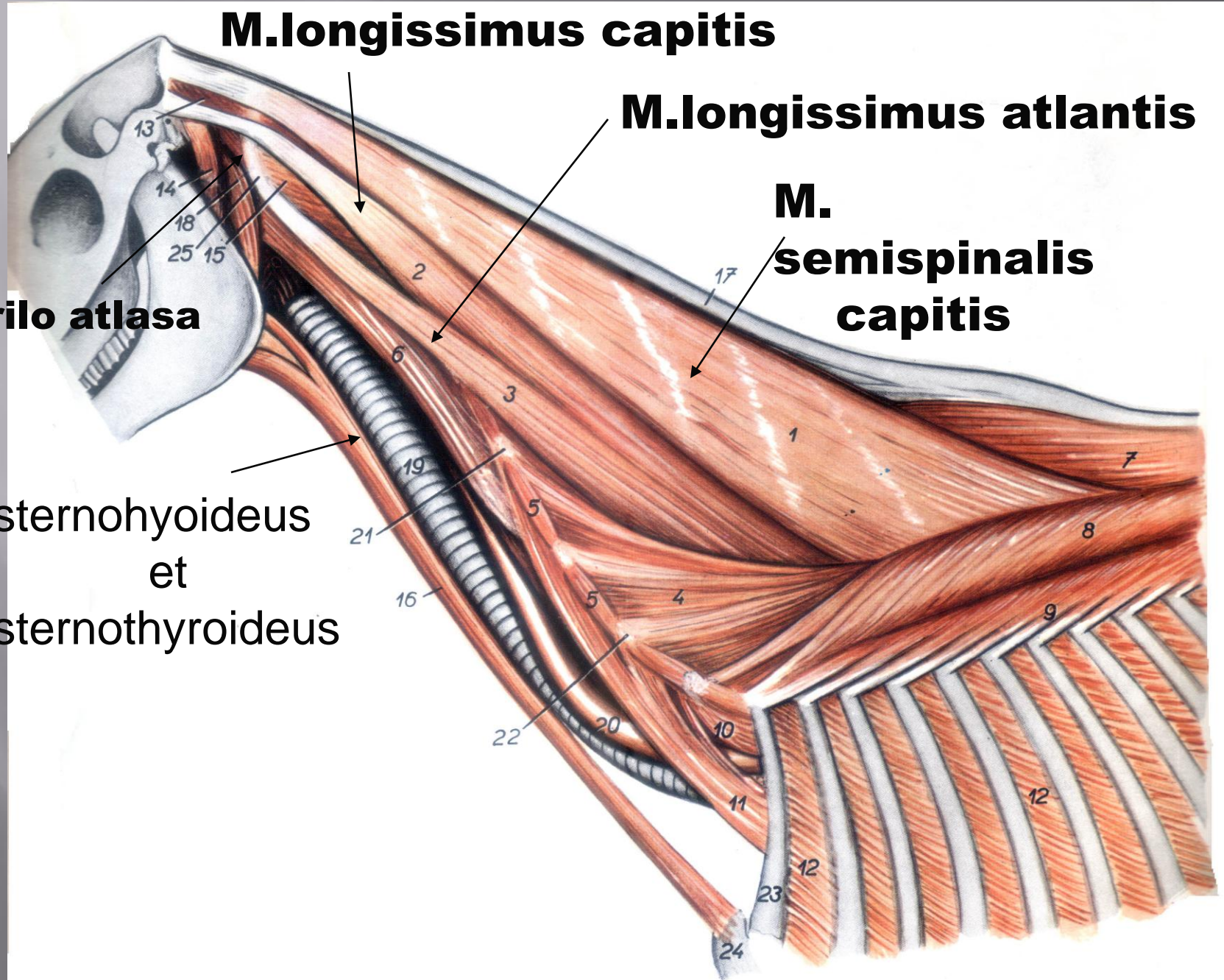
M.longissimus capitis

M.longissimus atlantis

**M.
semispinalis
capitis**

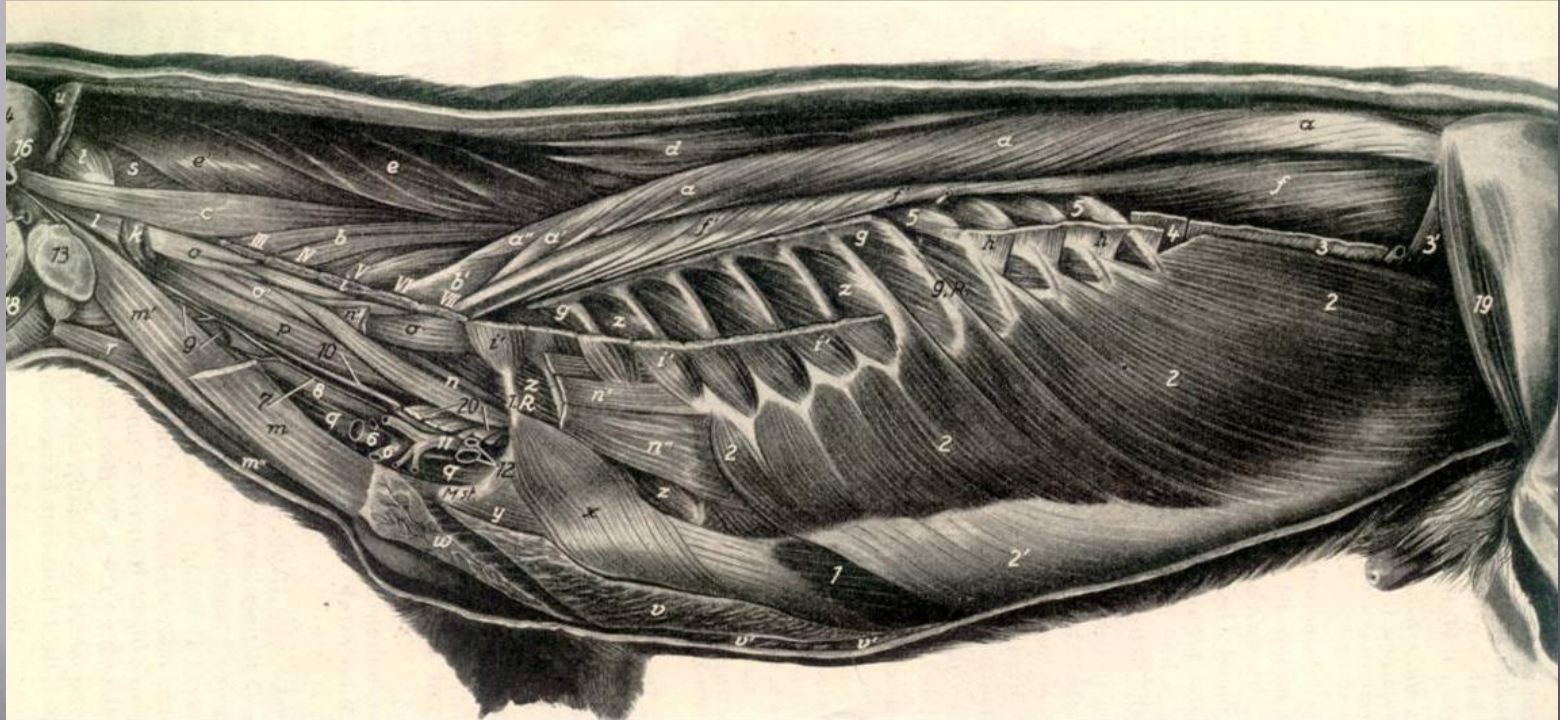
krilo atlasa

**M. sternohyoideus
et
M. sternothyroideus**



M. LONGISSIMUS

(lumborum, thoracis, cervicis, atlantis, capitis)



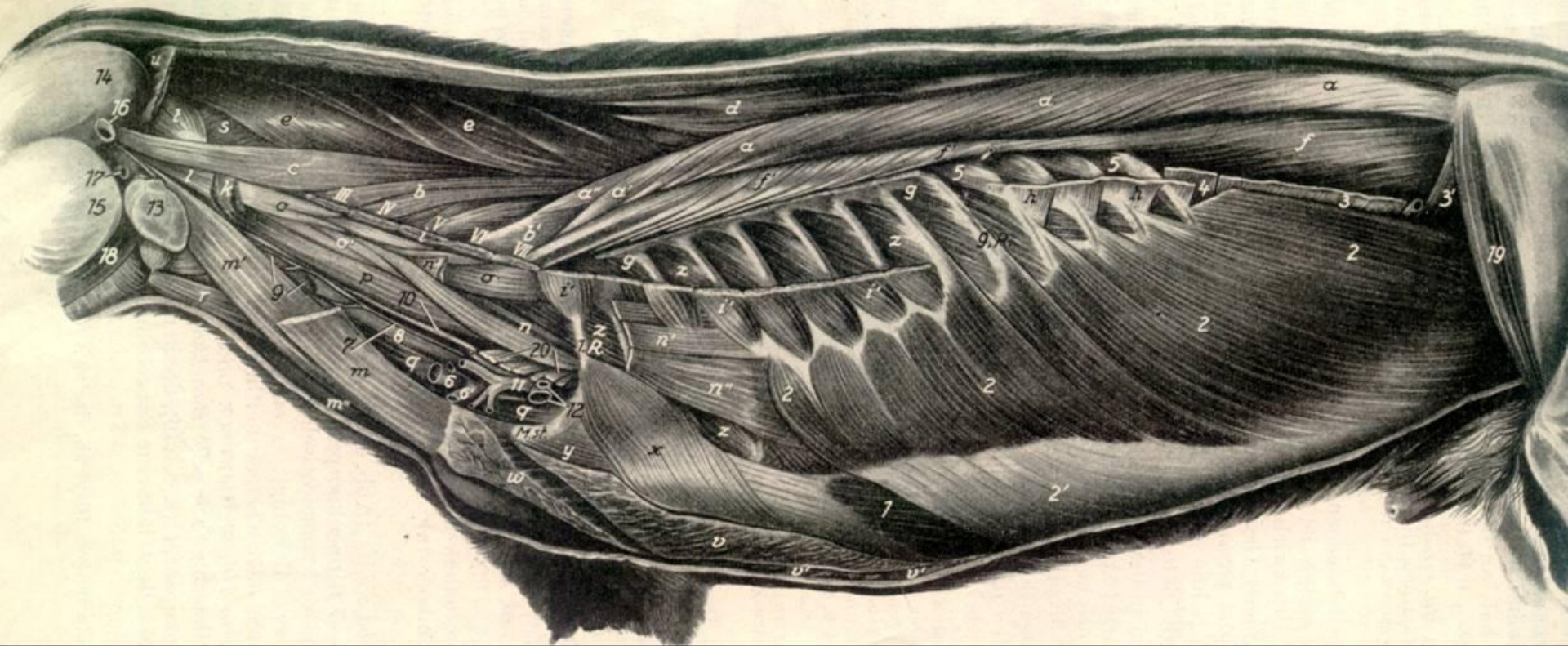
- najduži mišić tela, najjači **ekstenzor** leđnog i slabinskog dela kičme
- pruža se od krsne i karlične kosti do glave prihvatajući se za transverzalne izdanke
- iznad M. iliocostalis-a

M. longissimus lumborum (najbolje razvijeni deo, leži ispod thorakolumbalne fascije)

- počinje na:

- trnastim izdancima krsnih i lumbalnih pršljenova
- os coxae (crista iliaca, tuber coxae, ventralna površina krila os ilium)

M. SPINALIS (d)



- najdorzalnije na kičmenom stubu u slabinskom i leđnom delu
- prihvata se tetivasto za vrhove spinalnih izdanaka
- na ventralnoj strani formira žleb u kojem se nalazi M. longissimus
- završava: na trnastim izdancima poslednjih vratnih pršljenova

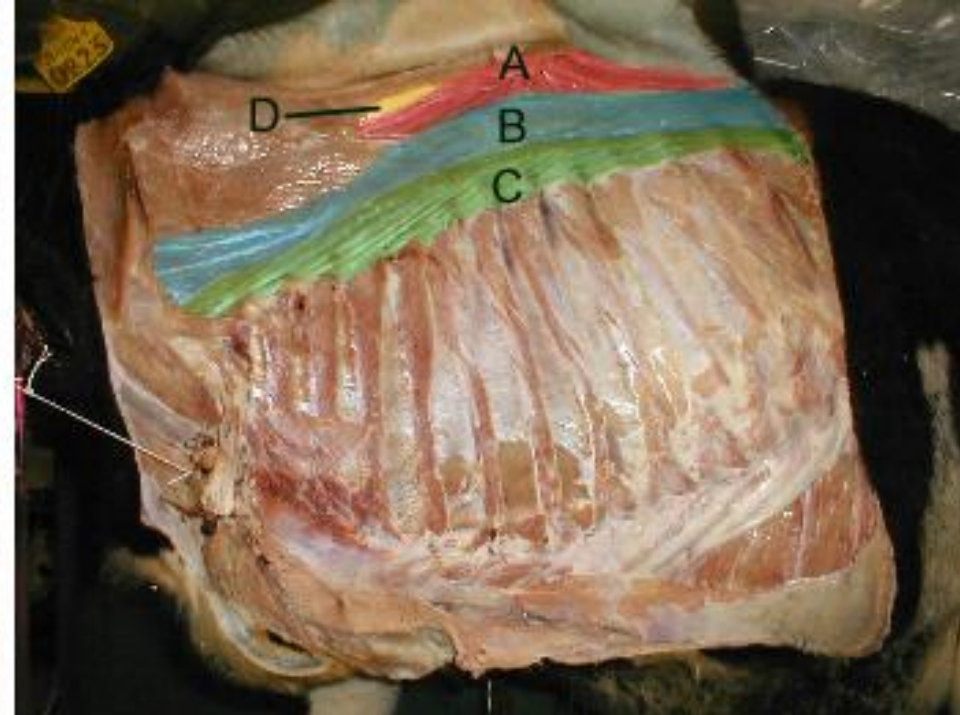
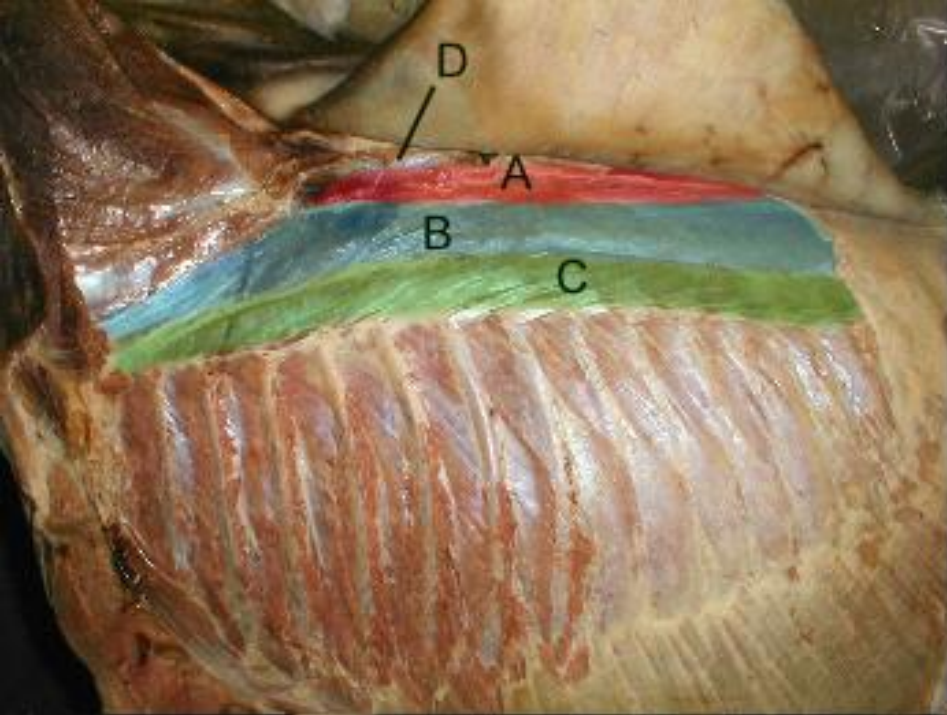
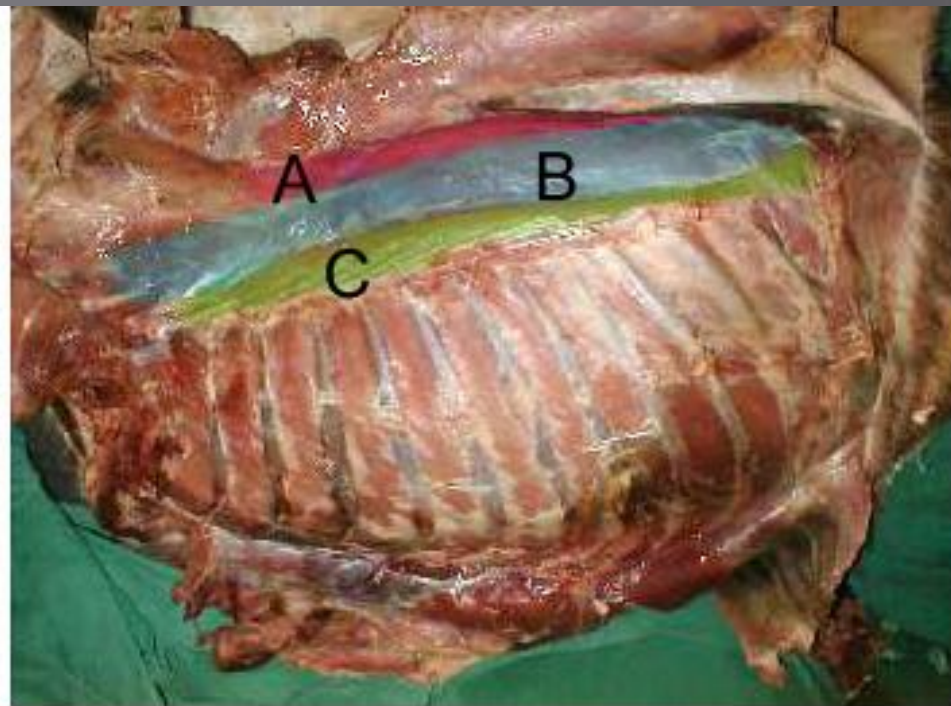
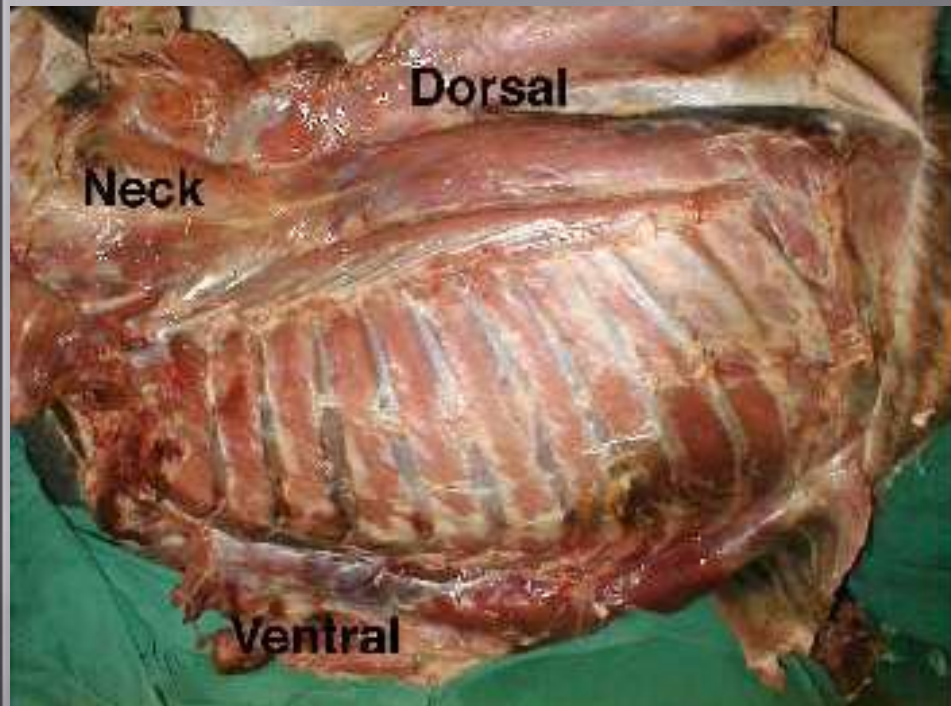


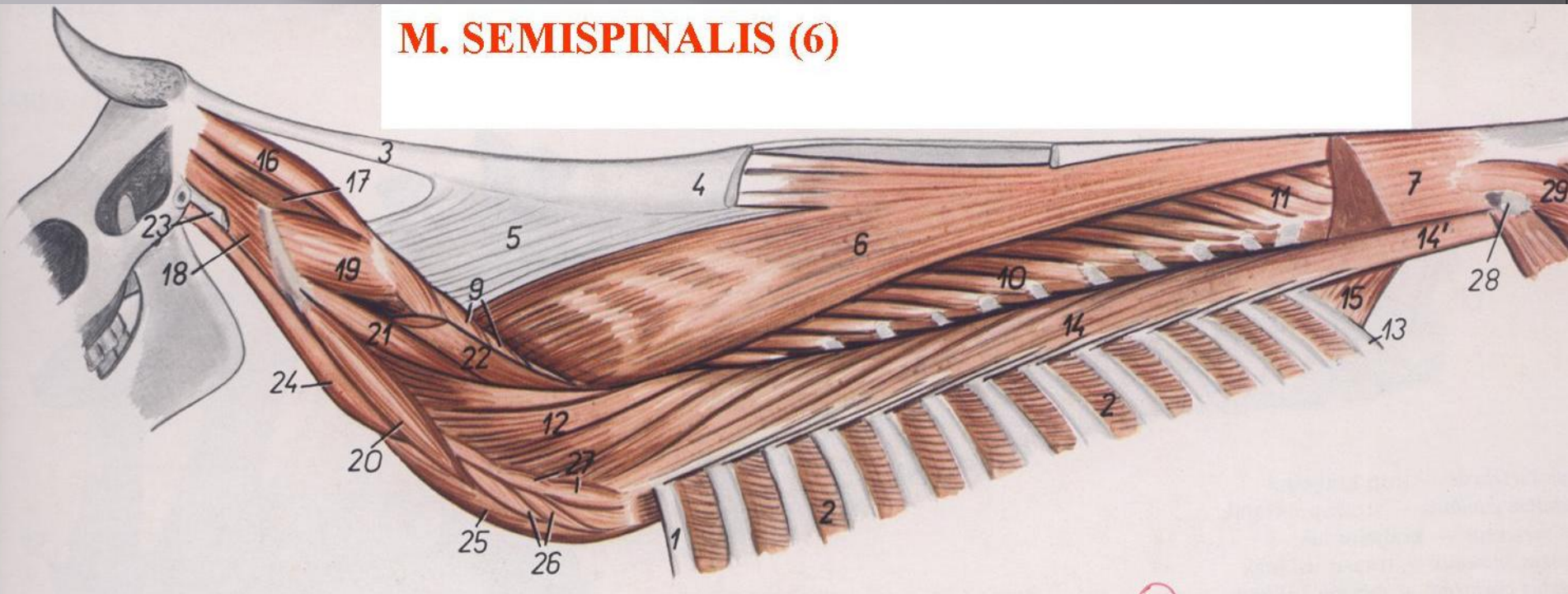
Figure 3 - Epaxial muscles (Horse.....Ox)

- **A - Spinalis & semispinalis**
- **B - Longissimus thoracis**
- **C - Iliocostalis thoracis**
- **D - Nuchal ligament**



Epaxial muscles of the dog

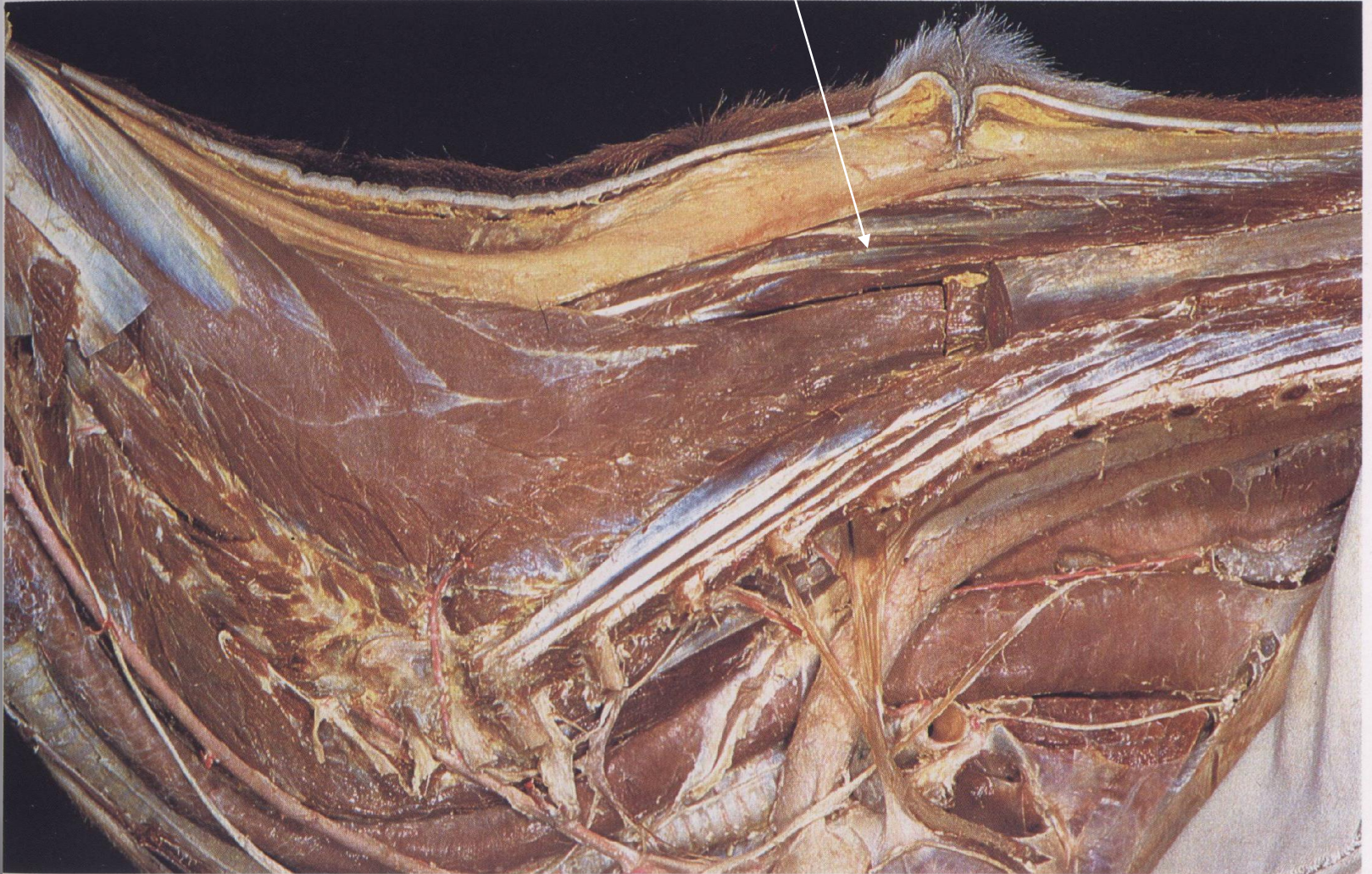
M. SEMISPINALIS (6)



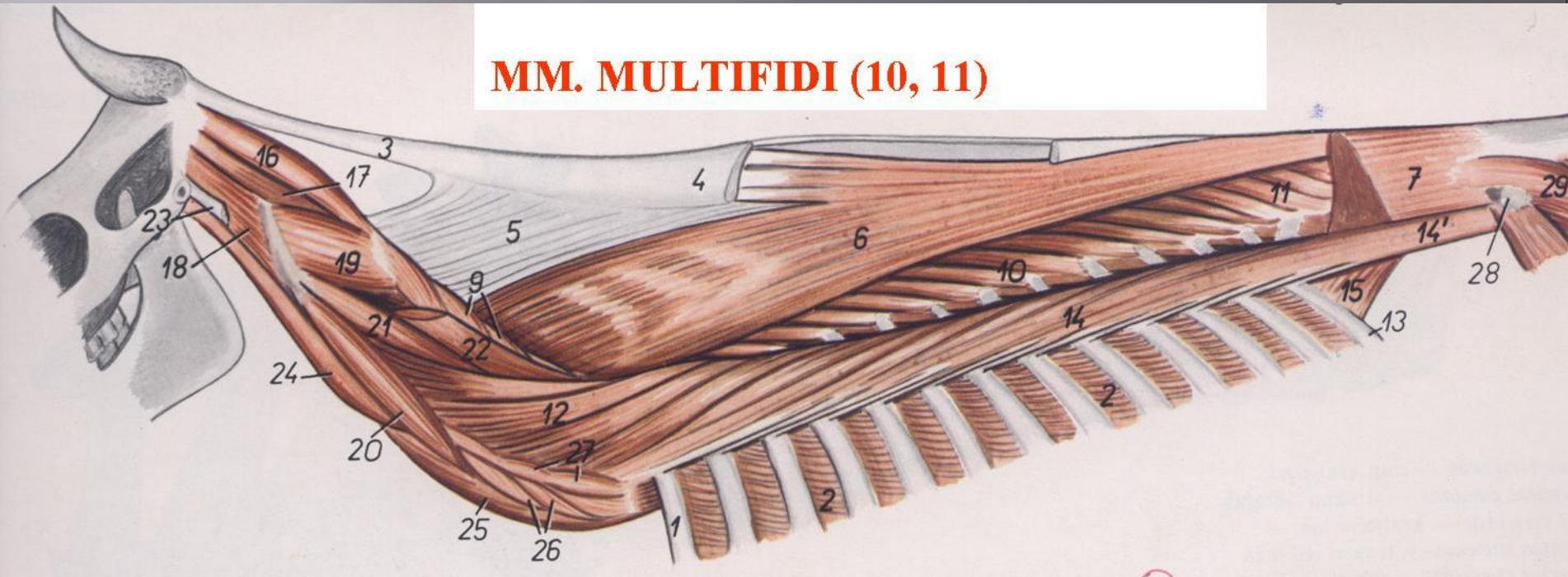
- počinje dorzalno na transverzalnim izdancima lumbalnih i poslednjih 6/7 leđnih pršljenova
- završava na trnastim izdancima prvih leđnih pršljenova
- tesno je spojen sa M. spinalisom pa se naziva i

M. SPINALIS ET SEMISPINALIS THORACIS ET CERVICIS

M. SPINALIS ET SEMISPINALIS THORACIS ET CERVICIS



MM. MULTIFIDI (10, 11)



- najdublji mišići uz trnaste izdanke pršljenova,
- pravac pružanja kraniodorzalan,
- jednim krajem se prihvata za zglobni i transverzalni izdanak
- drugim krajem za trnasti izdanak, prelazeći kranijalno preko 2-6 pršljenova

- **MIŠIĆI VRATA (Mm. coli)**
- **MIŠIĆI LEĐA I SLABINA (Mm. dorsi)**
- **MIŠIĆI REPA (Mm. caudae s.coccygis)**
- **MIŠIĆI GRUDNOG KOŠA (Mm.thoracis)**
- **MIŠIĆI TRBUŠNOG ZIDA (Mm.abdominis)**

MIŠIĆI VRATA (Mm. coli)

MIŠIĆI LEĐA I SLABINA (Mm. dorsi)

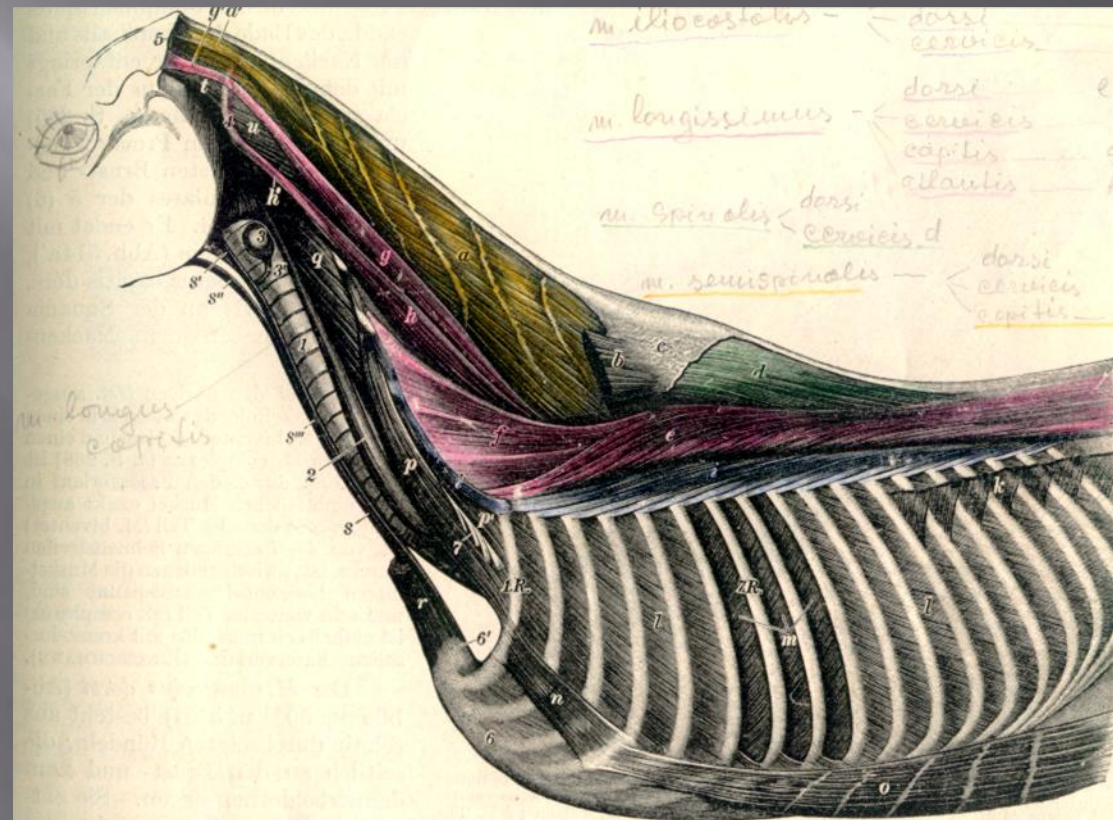
MIŠIĆI REPA (Mm. caudae s. coccygis)

MIŠIĆI GRUDNOG KOŠA (Mm. thoracis)

MIŠIĆI TRBUŠNOG ZIDA (Mm. abdominis)

MIŠIĆI GRUDNOG KOŠA

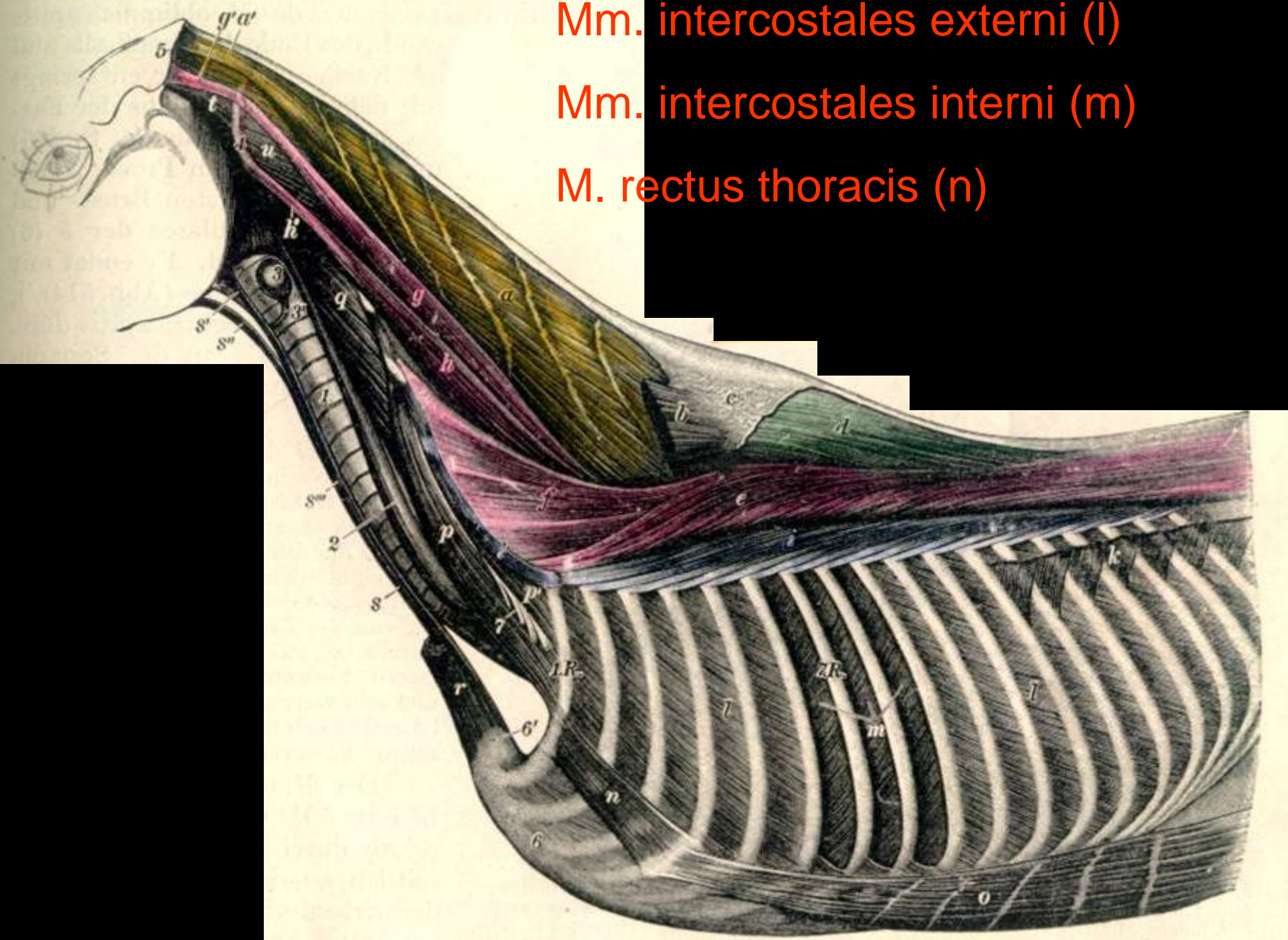
1. Mm. intercostales
2. Mm. levatores costarum
3. M. transversus thoracis
4. M. rectus thoracis
5. Diaphragma, Phren



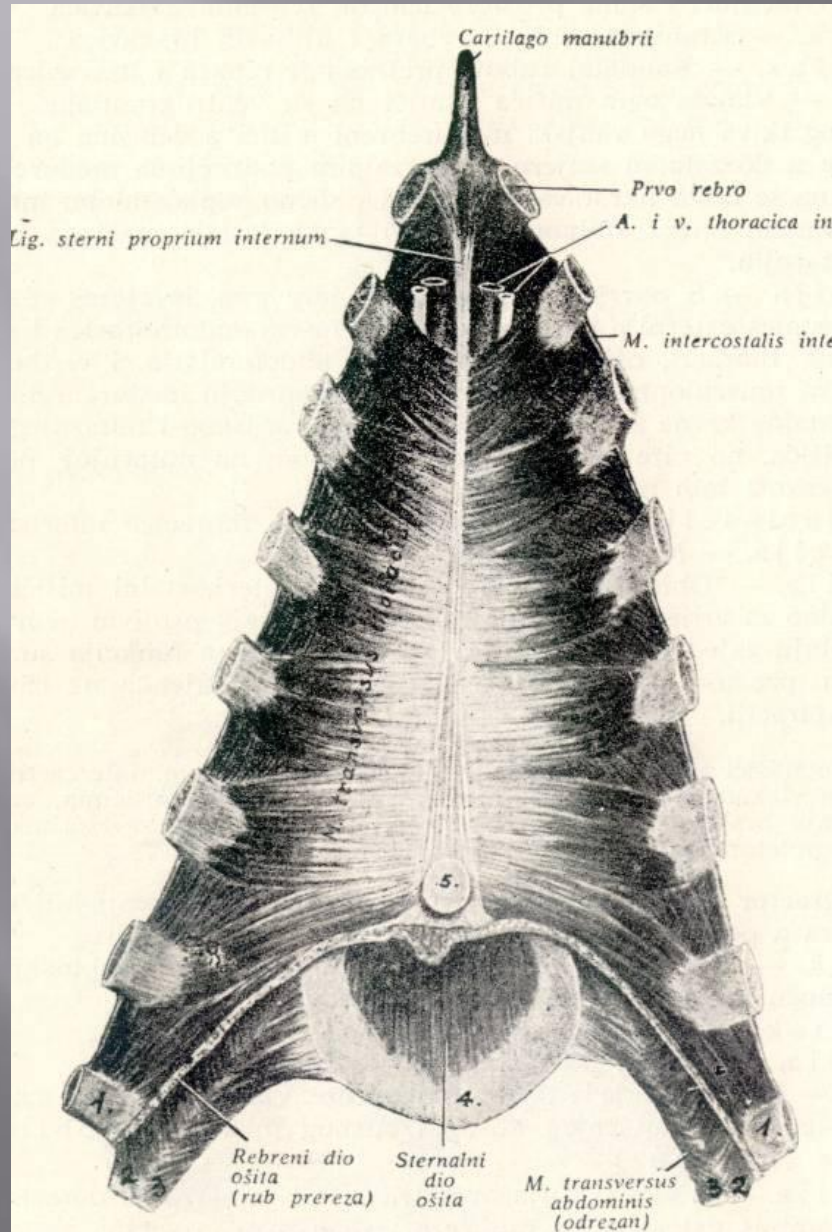
Mm. intercostales externi (l)

Mm. intercostales interni (m)

M. rectus thoracis (n)



M. TRANSVERSUS THORACIS

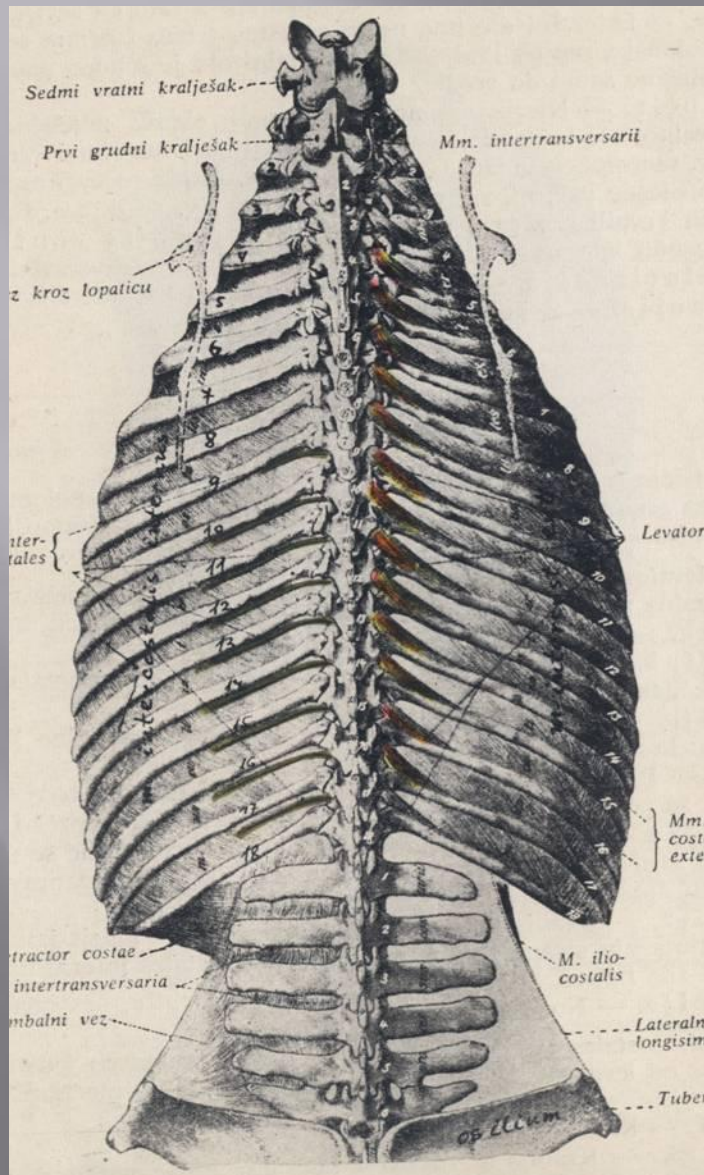


- tanak, pljosnat mišić
- prožet tetivnim vlaknima
- pomaže izdisaj

MM. LEVATORES COSTARUM (a)



MM. LEVATORES COSTARUM



- vertebralna pojačanja Mm. intercostales externi
- mali, kratki, pokriveni M. longissimus-om
- počinju na transverzalnim izdancima
- pravac pružanja vlakana kos, kaudoventralan
- završavaju na kranijalnom rubu
- funkcija: kao Mm. intercostales externi

DIAPHRAGMA (phren, ošit, grudna prečaga)

- centralni tetivasti deo – Centrum tendineum

Foramen venae cavae caudalis

- periferni mišićni deo – Pars muscularis

1/ slabinski deo (Pars lumbalis, Crura diaphragmatis)

Crus sinistrum

Crus dextrum (Crus laterale, Crura medialis)

Hiatus aorticus

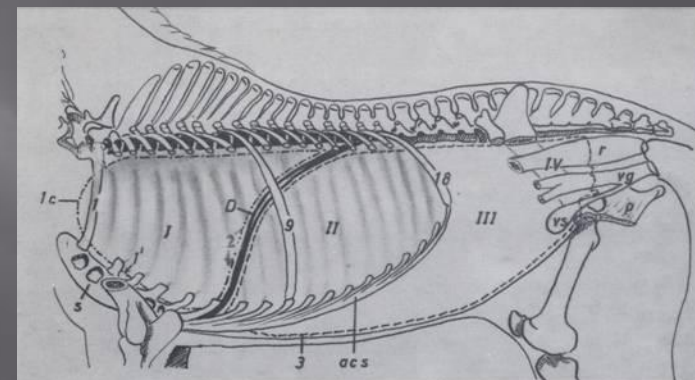
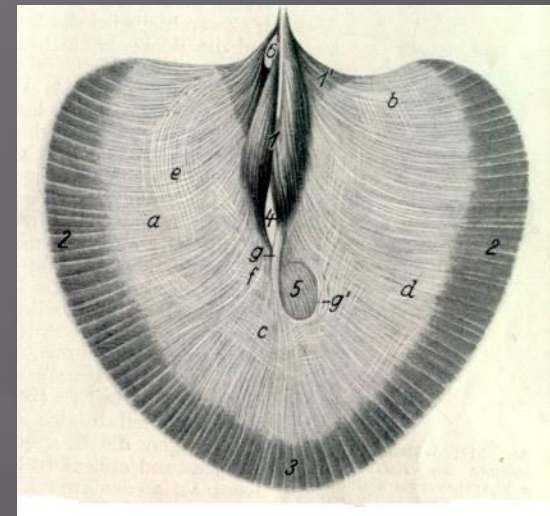
Hiatus oesophageus

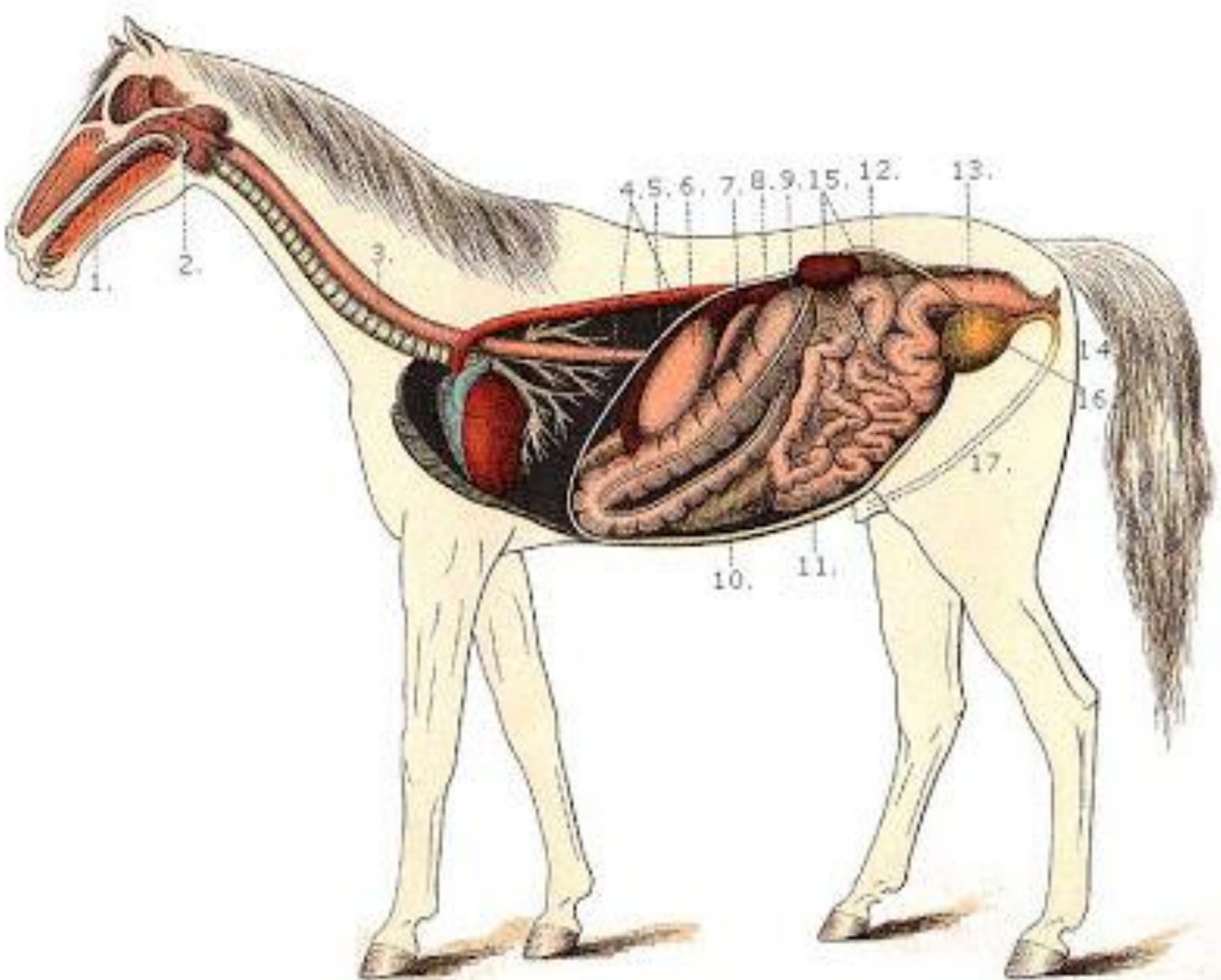
2/ rebarni deo (Pars costalis)

3/ grudni deo (Pars sternalis)

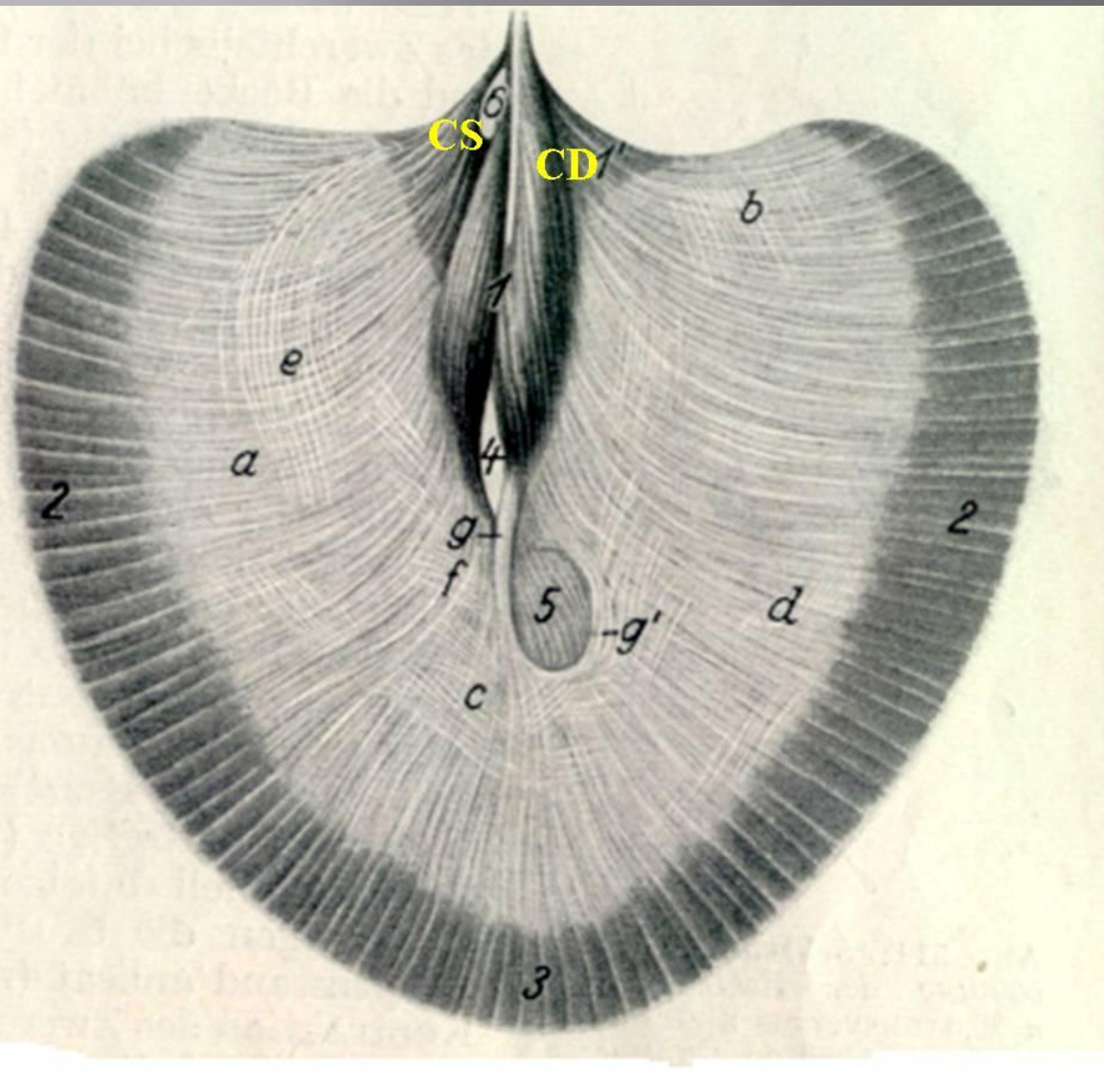
Funkcija:

- najvažniji inspiratorni mišić
- pri defekaciji, mikciji (pražnjenje creva i mokraćne bešike)
- pri porođaju u ženskih životinja





Sl. Diaphragma (*pogled iz trbušne duplje*)



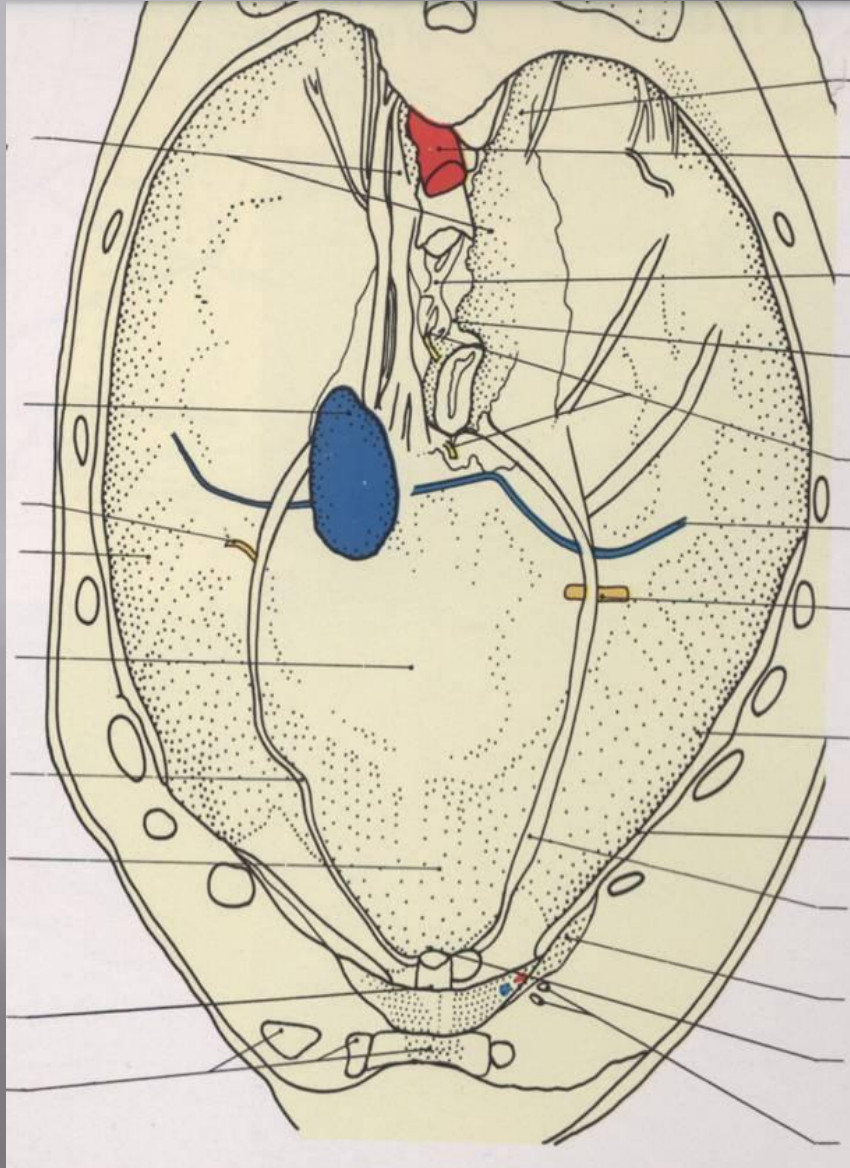
- 1- Crus dextrum (CD)- jači
- CS- Crus sinistrum
- 2- Pars costalis
- 3- Pars sternalis

OTVORI:

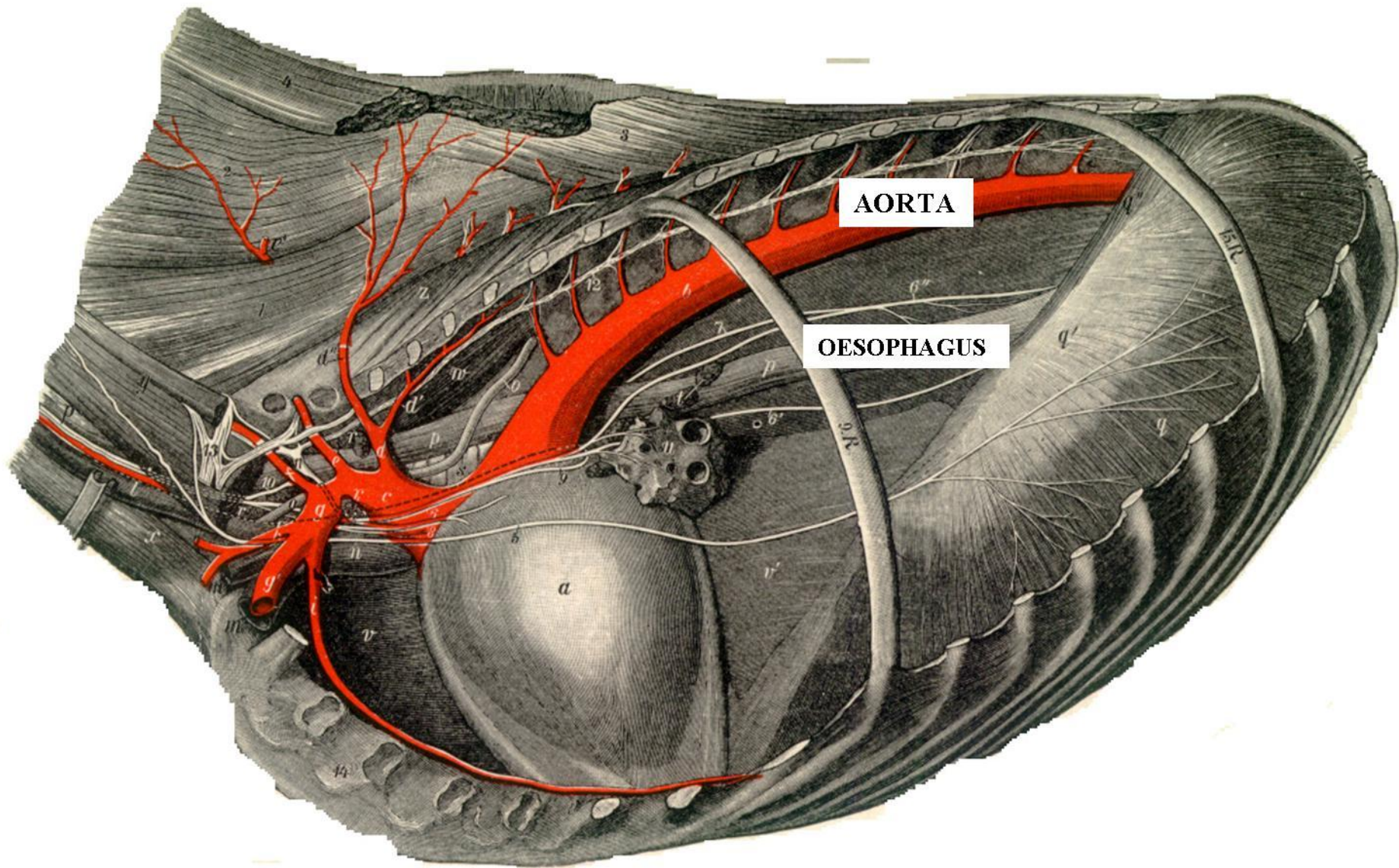
- 4- Hiatus oesophageus
- 5- Foramen venae cavae
- 6- Hiatus aorticus

a,b,c,d,e – Centrum tendineum

Sl. Pogled na dijafragmu iz grudne duplje



kranijalna strana - konveksna



AORTA

OESOPHAGUS



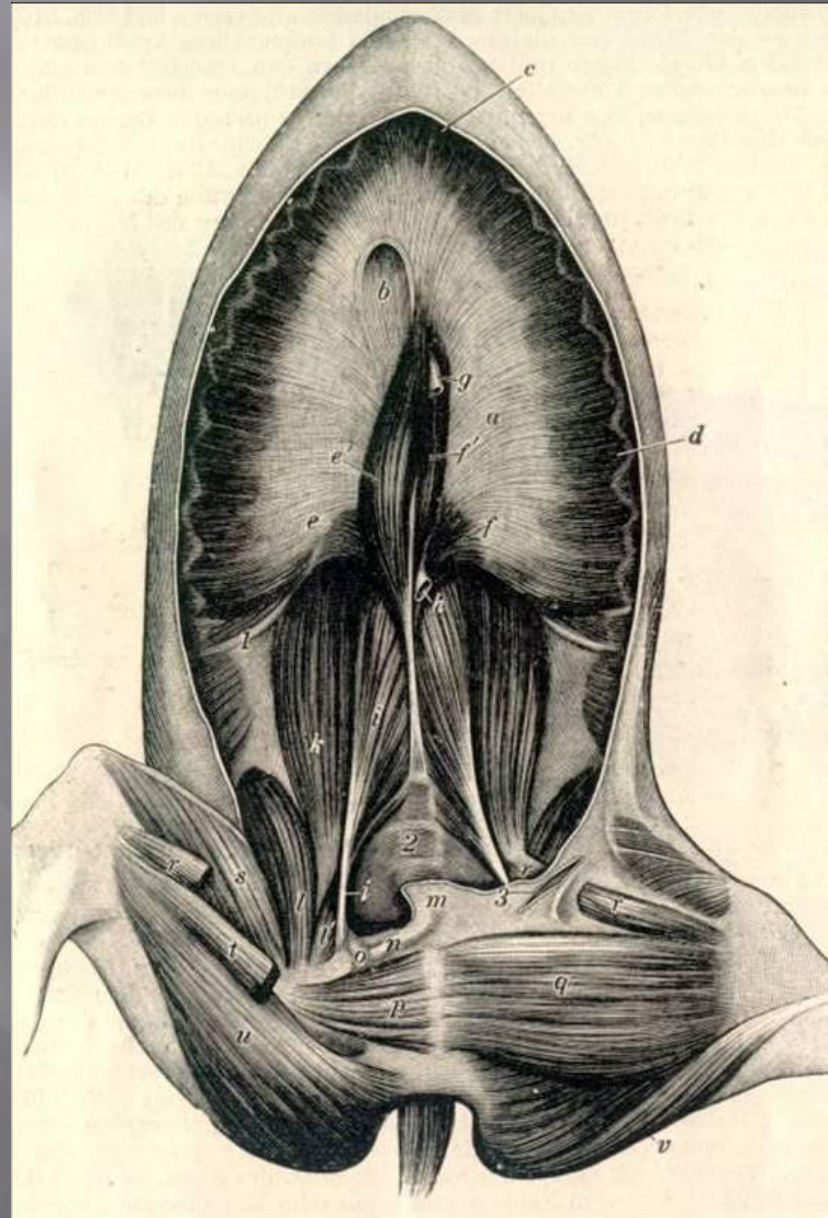


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Sl. Pogled na dijafragmu iz trbušne duplje



kaudalna strana dijafragme - konkavna

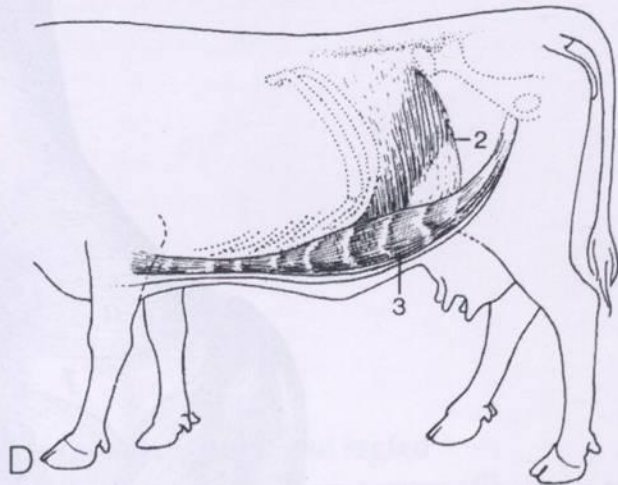
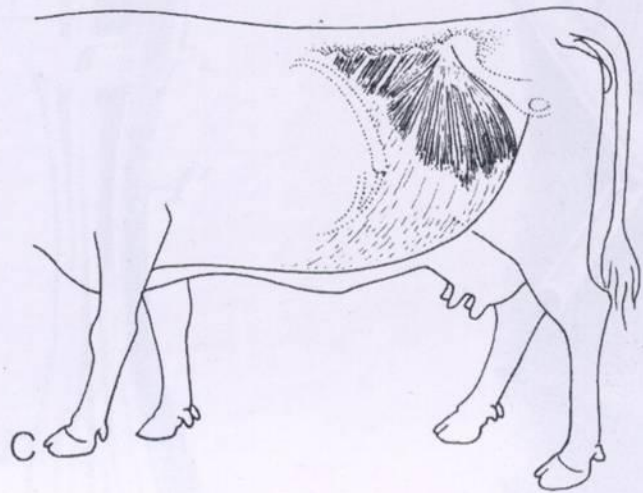
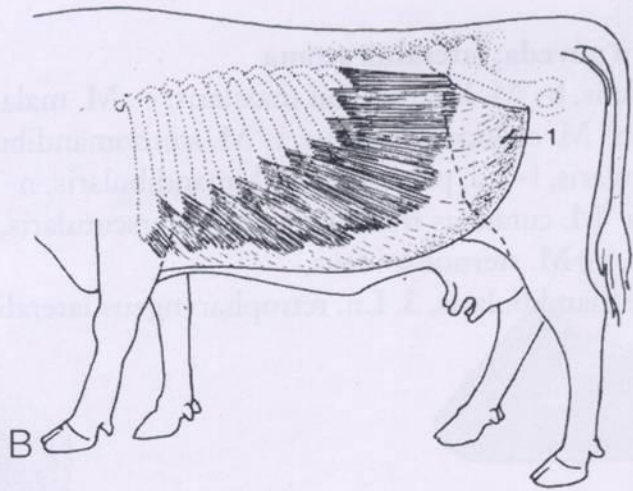
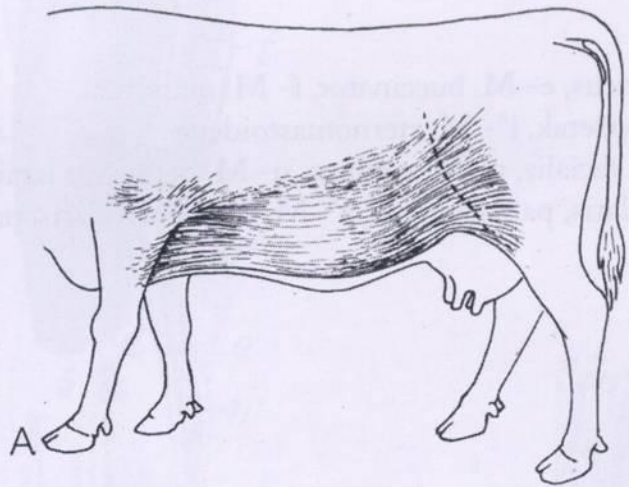
MIŠIĆI VRATA (Mm. coli)

MIŠIĆI LEĐA I SLABINA (Mm. dorsi)

MIŠIĆI REPA (Mm. caudae s.coccygis)

MIŠIĆI GRUDNOG KOŠA (Mm. thoracis)

MIŠIĆI TRBUŠNOG ZIDA (Mm. abdominis)



MIŠIĆI TRBUŠNOG ZIDA

1. *M. obliquus externus abdominis*

Annulus inguinalis superficialis subcutaneus

2. *M. obliquus internus abdominis*

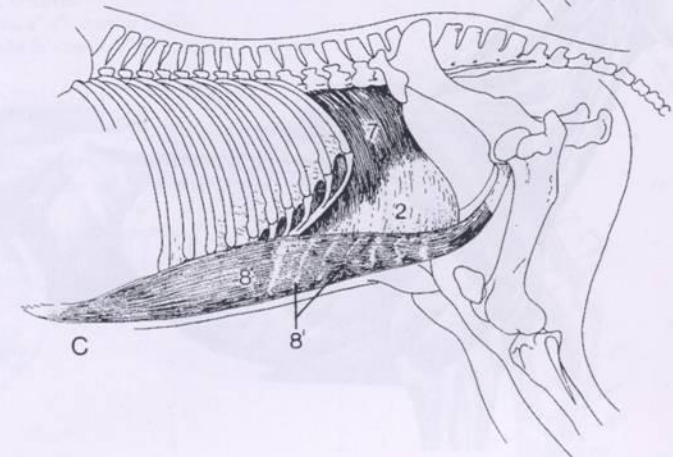
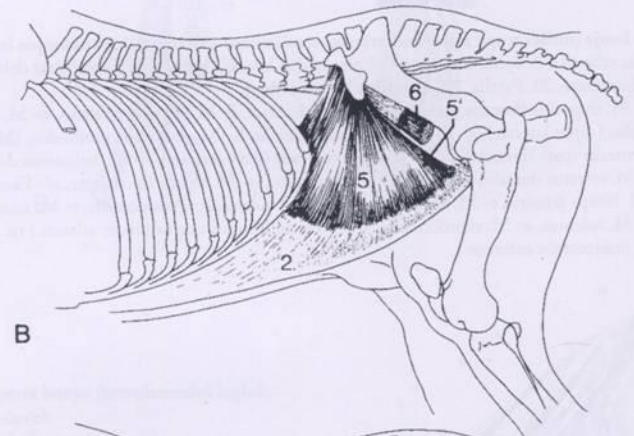
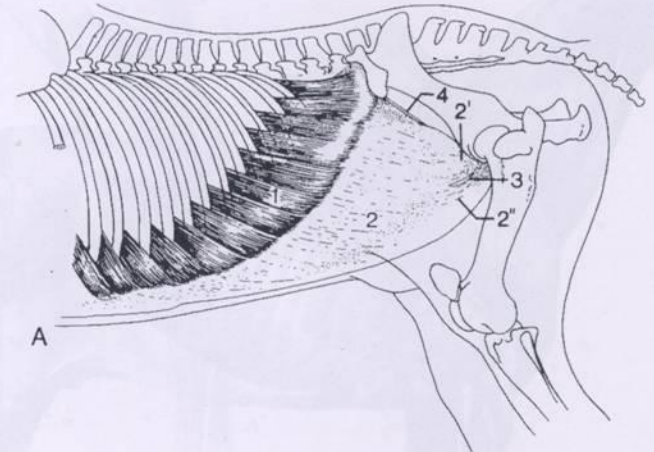
Annulus inguinalis profundus

3. *M. rectus abdominis*

4. *M. transversus abdominis*

Funkcija:

1. Disanje
2. Defekacija
3. Mikcija
4. Pri porođaju
5. Pri kretanju (predvode zadnji eksteremitet, povijaju kičmeni stub)



M. obliquus externus abdominis

- veliki, pločasti, kosi, najpovršniji
- na kaudoventralnom zidu toraksa i trbušnog zida

počinje: na rebrima zubasto od 4.5-poslednjeg rebra
vlakna se pružaju kaudoventralno

završava: dorzalno - mišićno na torakolumbalnoj fasciji
ventralno - aponeurozom u ventr.trb.zidu
kaudalno - sa dve tetive: trbušnom i karličnom



M.cutaneus trunci



M. obliquus internus abdominis

- širok, pločasti, kosi, ispod prethodnog
- naleže na M.rectus abdominis i transversus abdominis
- počinje:* na tuber coxae (ekvidi)
i transv.izdancima lumb.prš.(ostale životinje)
- pruža se kranioventralno
- završava:* dorzalno- na kaudalnom rubu posl. rebra
ventralno- aponeurozom u linea alba
- njegov kaudalni rub i lig. inguinale obrazuju:
Anulus inguinalis profundus
- u muških životinja mišićni snopovi ovog mišića
obrazuju **M. cremaster externus**



M. rectus abdominis

- pločast, prav mišić
- u ventralnom trbušnom zidu
- vlakna su položena sagitalno
- u “sendviču” aponeuroza

počinje: na rskavicama sternalnih rebara, od 4.

završava: na tendo prepubicus (os coxae)
linea alba

- intersectiones tendineae
- kod konja- završna tetiva produžava kao
Lig. accessorium femoris

M. transversus abdominis

- najdublji mišić
- vlakna se pružaju transverzalno

počinje: na transverzalnim izdancima lumb.prš.
na rskavicama asternalnih rebara

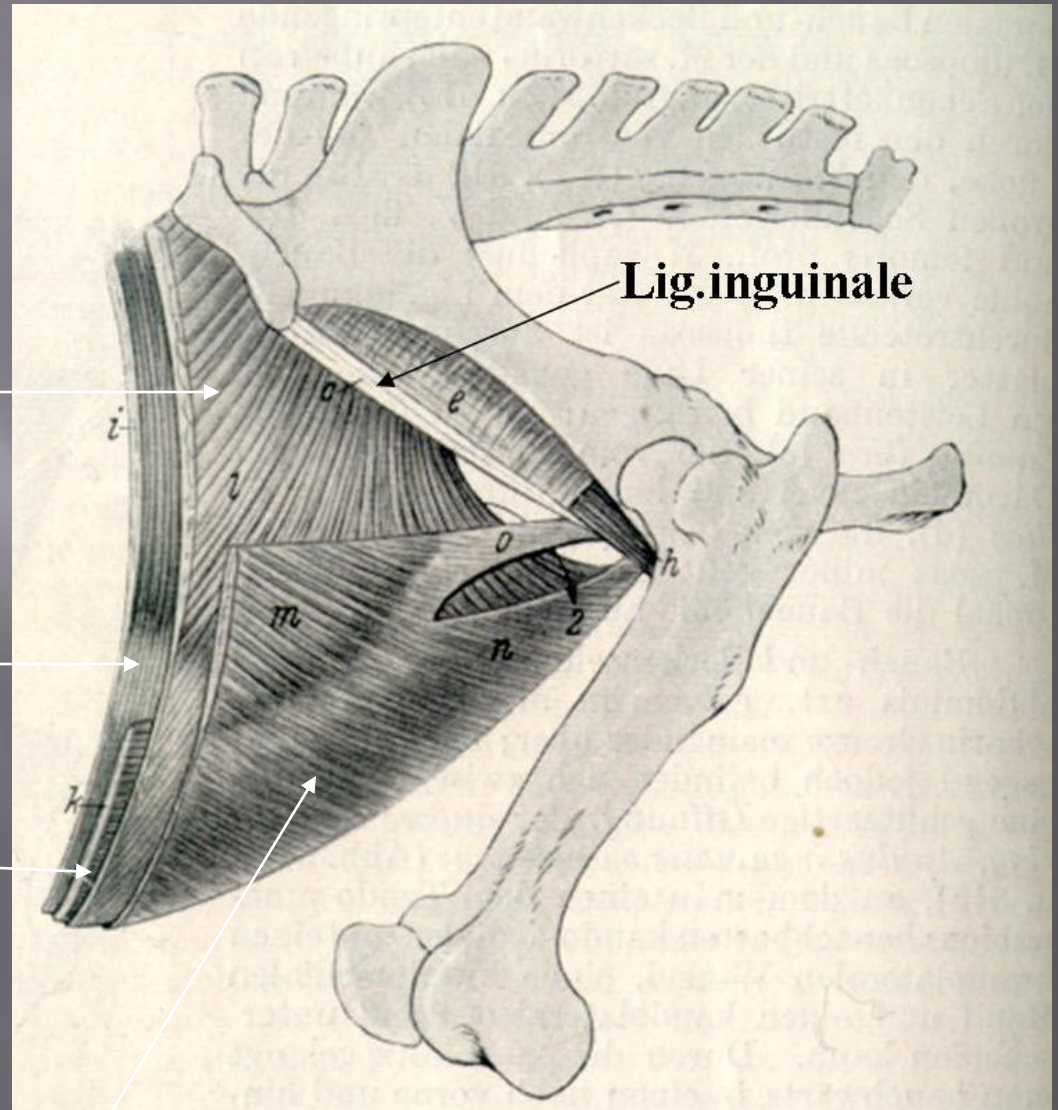
završava: aponeurozom u linea alba

M. obliquus internus abdominis

M. transversus abdominis

M. rectus abdominis

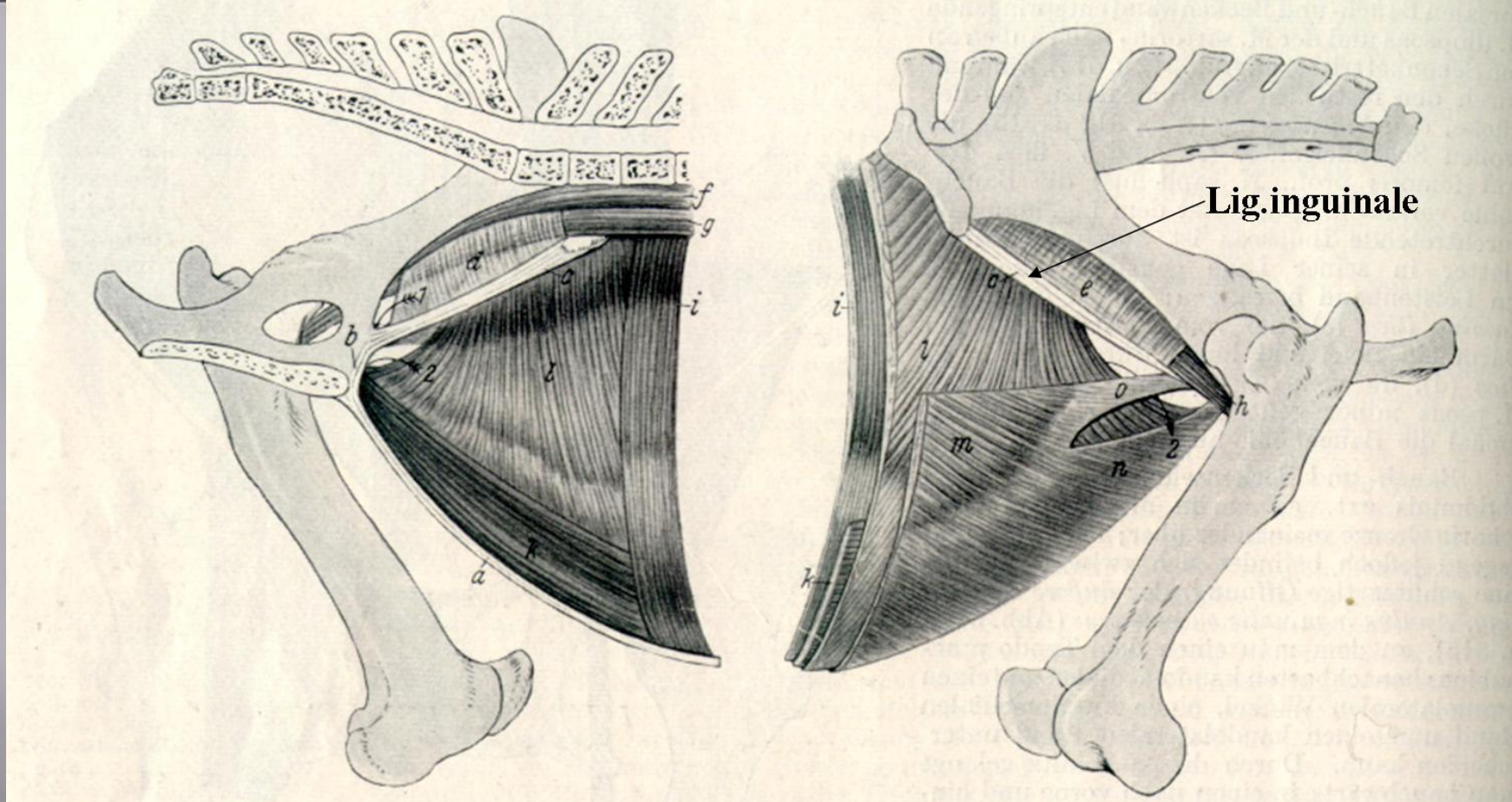
M. obliquus externus abdominis



TENDO PRAEPUBICUS- jaka tetiva od jedne do druge eminentia iliopubica. Uz kranijalni rub os pubis. Od nje sa levog i desnog kraja polazi po jedan

LIGAMENTUM INGUINALE- tetiva koja se pruža od eminentia iliopubica do tuber coxae

LINEA ALBA- tetivasta traka koja se pruža od cartilago xyphoidea do tendo praepubicus



Canalis inguinalis [Spatium inguinale]

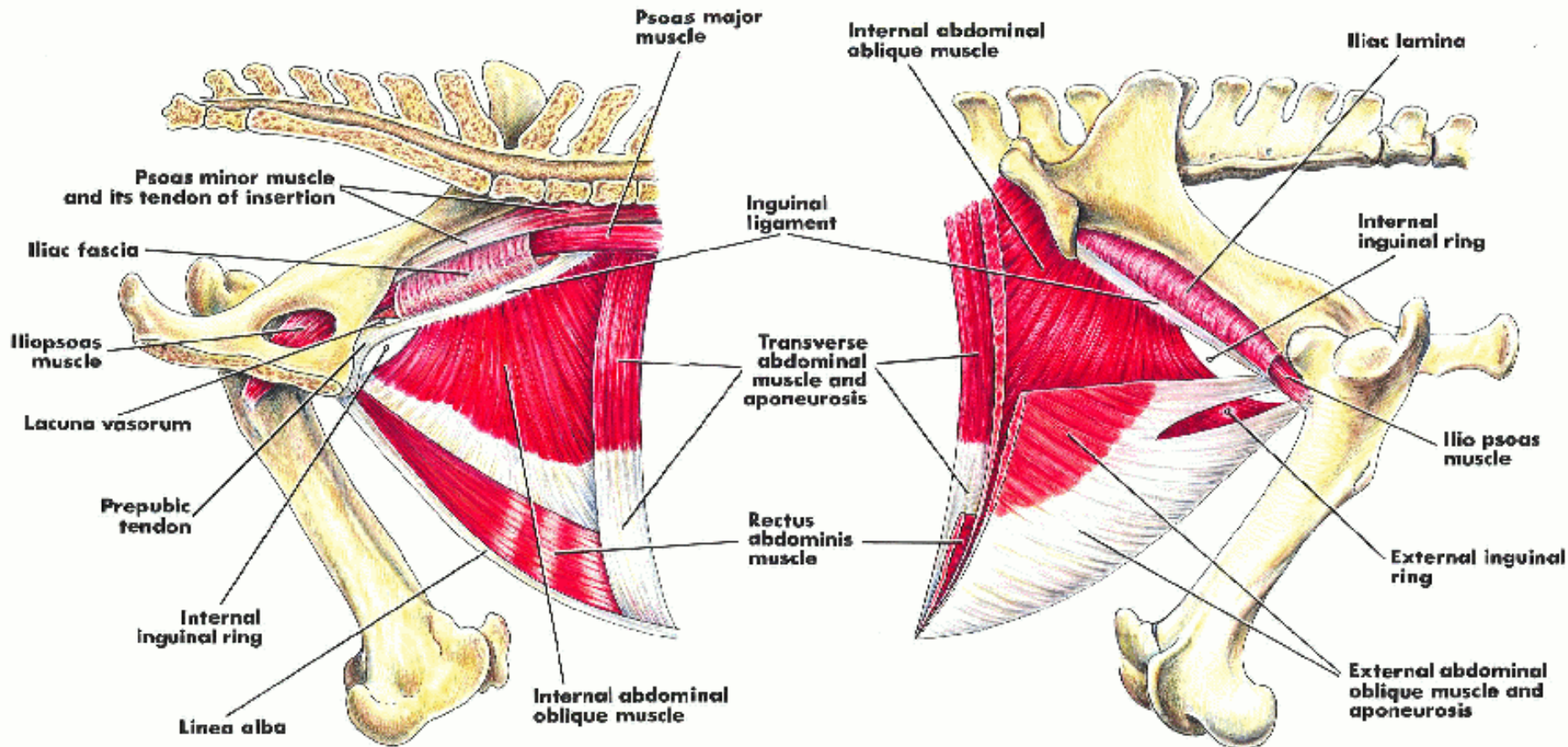
Anulus inguinalis superficialis [subcutaneus]

Crus laterale- karlična tetiva

Crus mediale- trbušna tetiva

Anulus inguinalis profundus [praepertonealis]

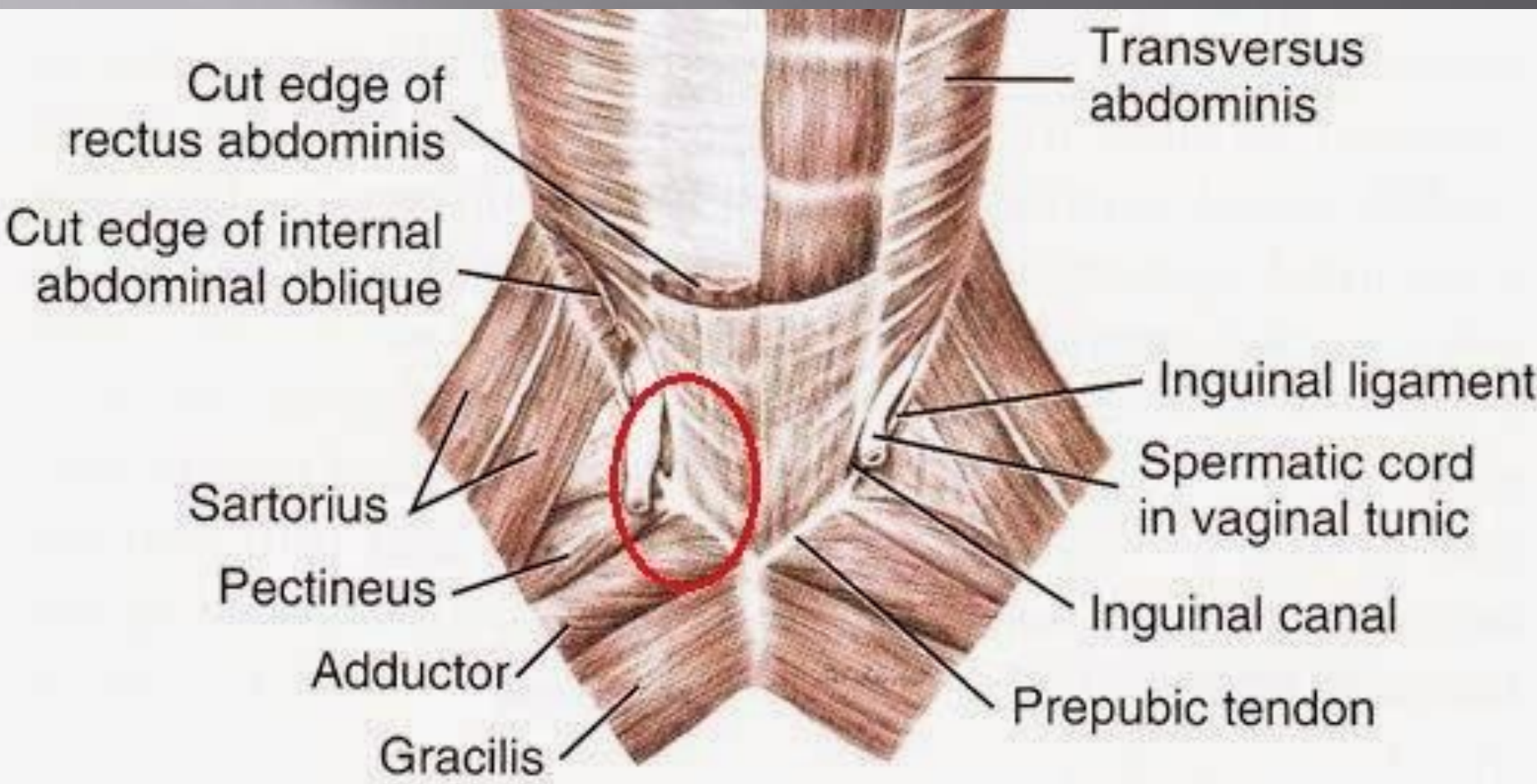
THE EXTERNAL AND INTERNAL INGUINAL RINGS AND THE LACUNA VASORUM IN THE HORSE

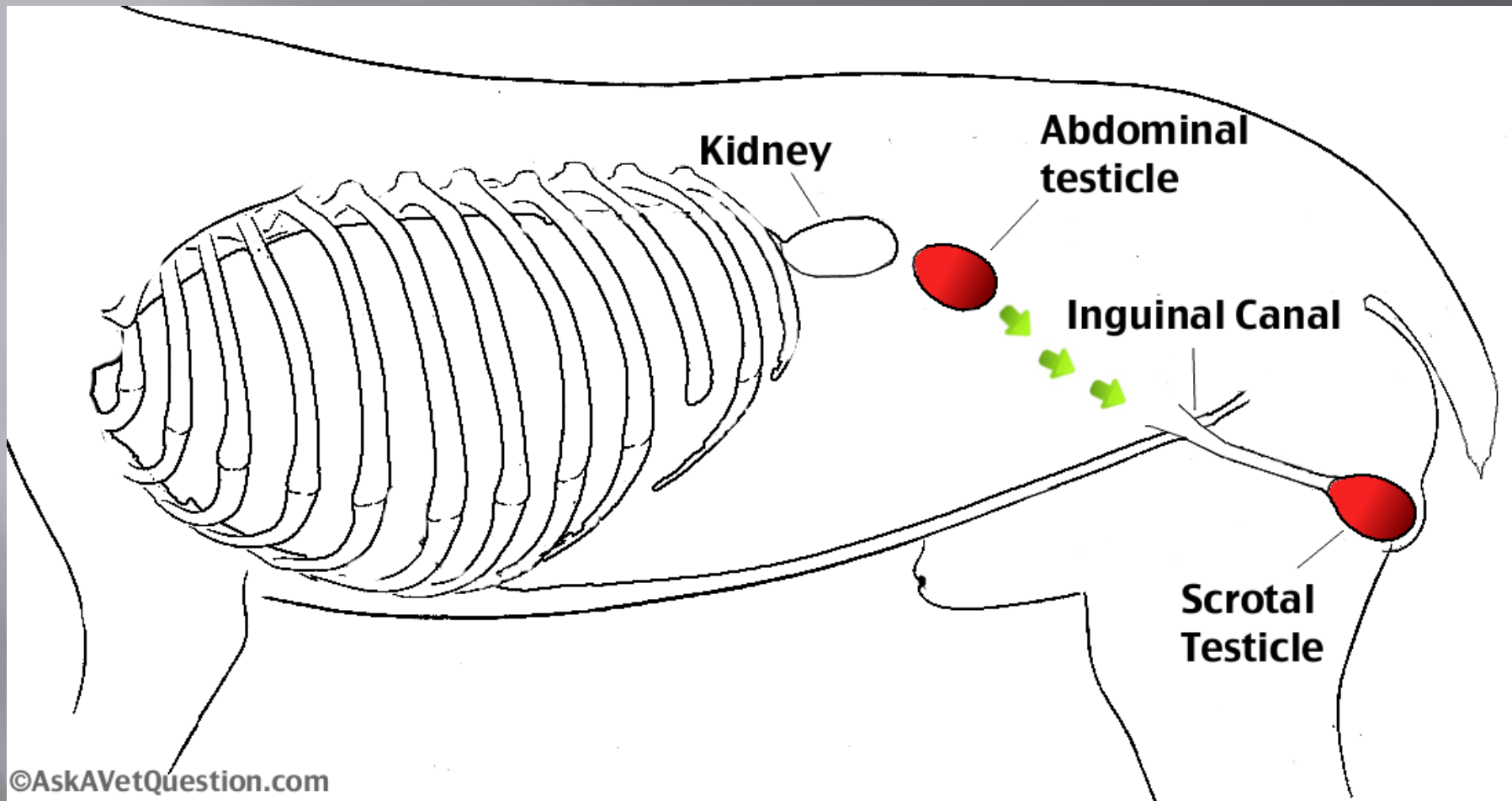


Seen from within
abdominal and pelvic cavities

Seen from outside
abdominal and pelvic cavities









Left testicle in the scrotum

Right testicle in the inguinal canal

Penis



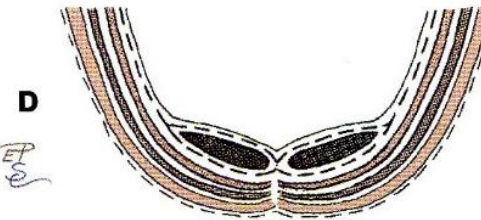
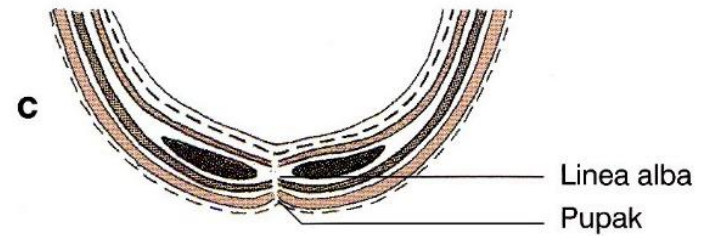
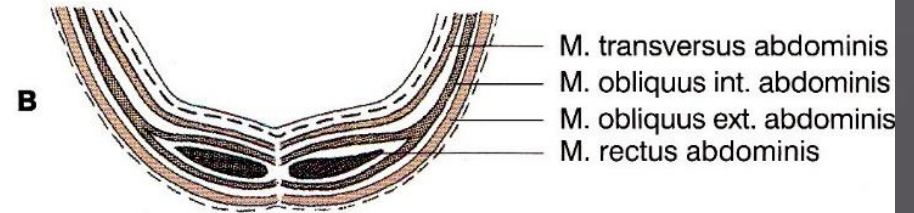
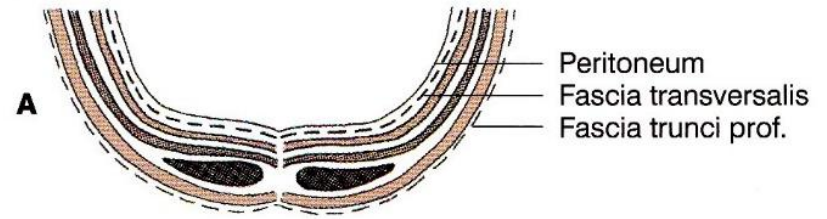
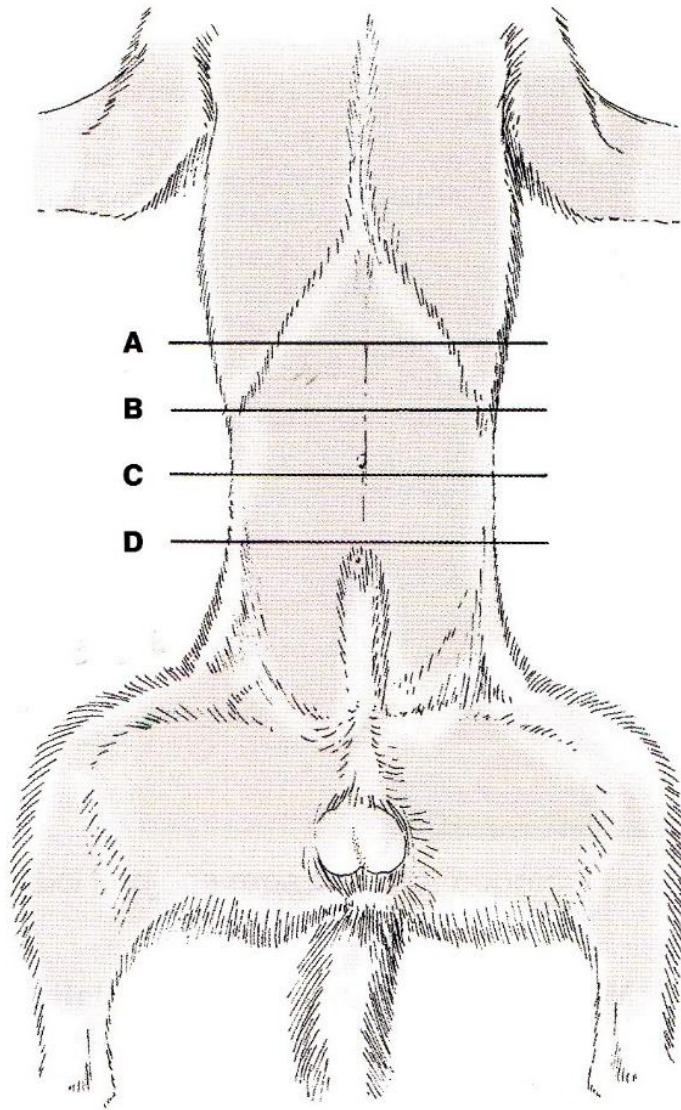
Inguinal Hernia



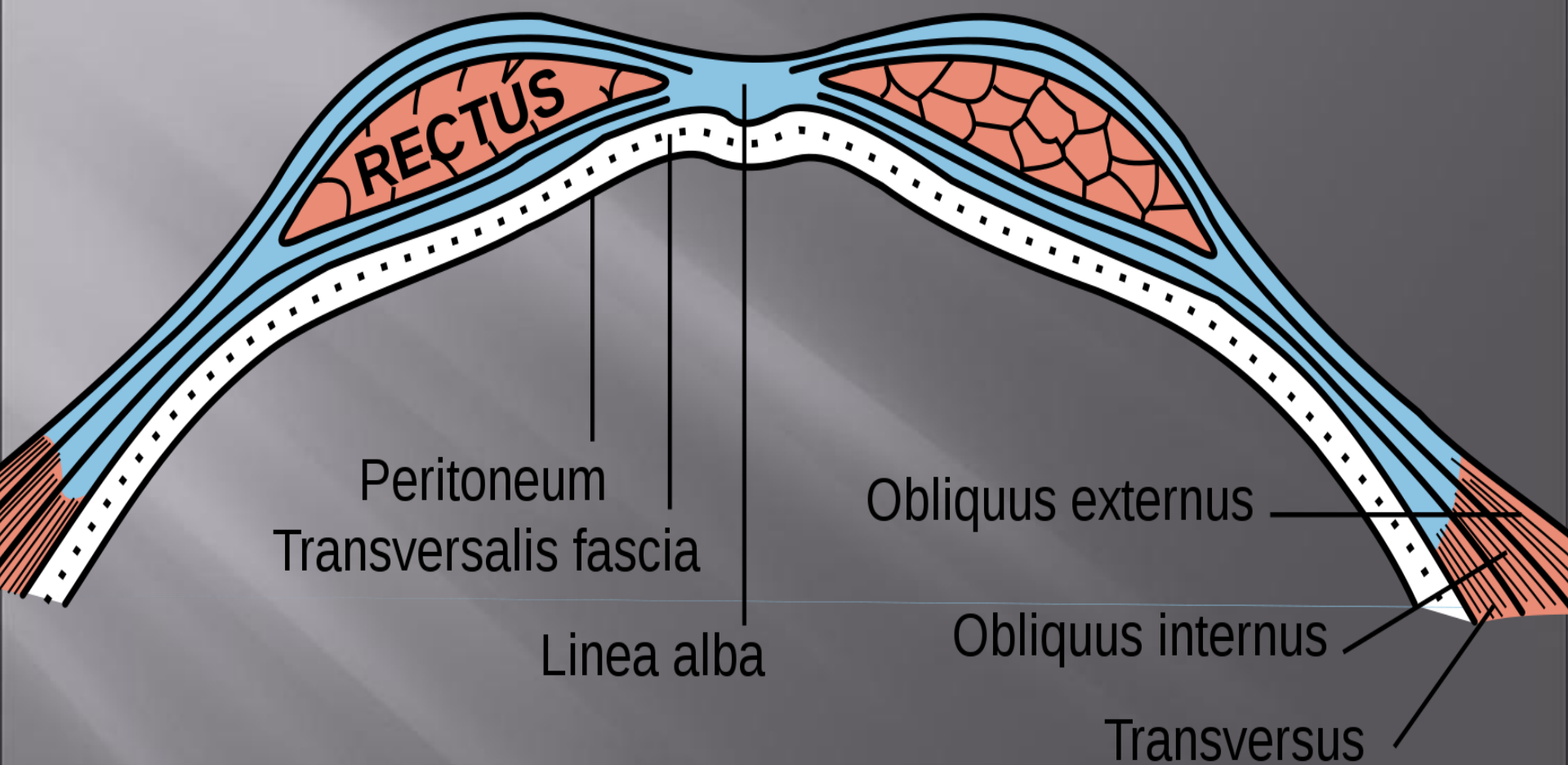
**external inguinal ring
(superficial)**

This anatomical diagram illustrates the inguinal region of the human body. It shows the internal and external oblique muscles, the inguinal canal, and the inguinal rings. The external inguinal ring is the superficial opening, and the internal inguinal ring is the deep opening. The diagram is a grayscale illustration with green arrows pointing to the two rings.

**internal inguinal
ring (deep)**



ET
S



RECTUS

Peritoneum
Transversalis fascia

Linea alba

Obliquus externus

Obliquus internus

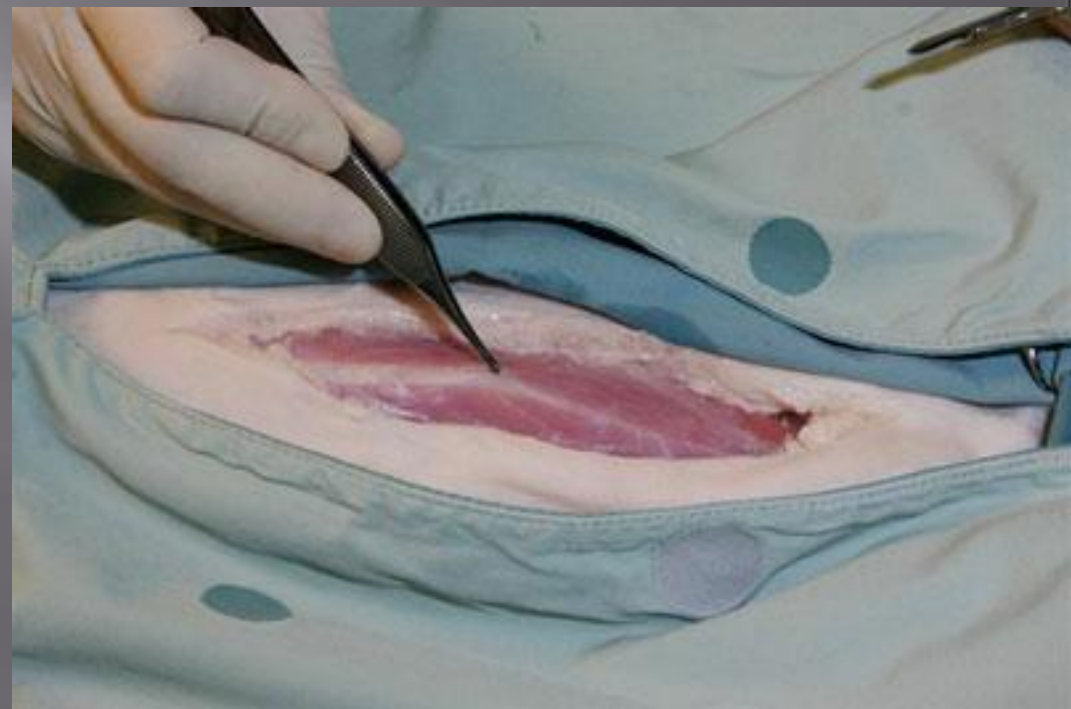
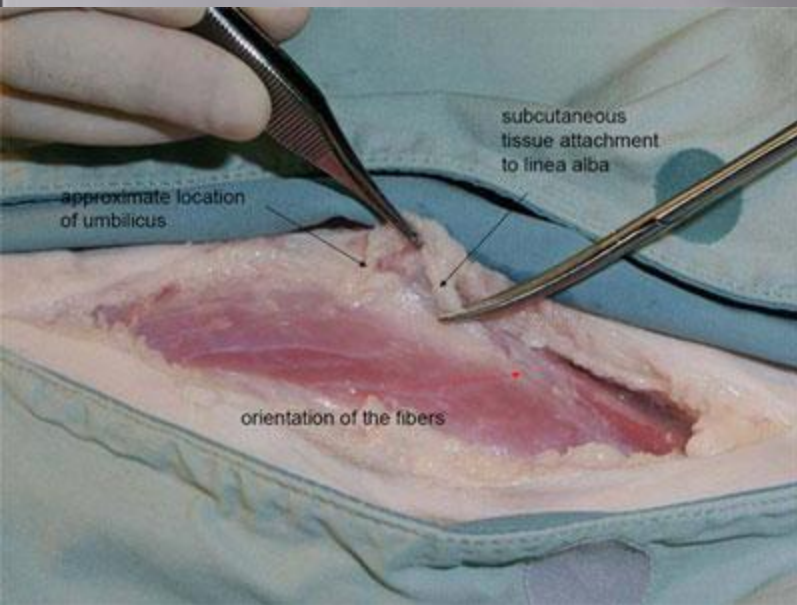
Transversus

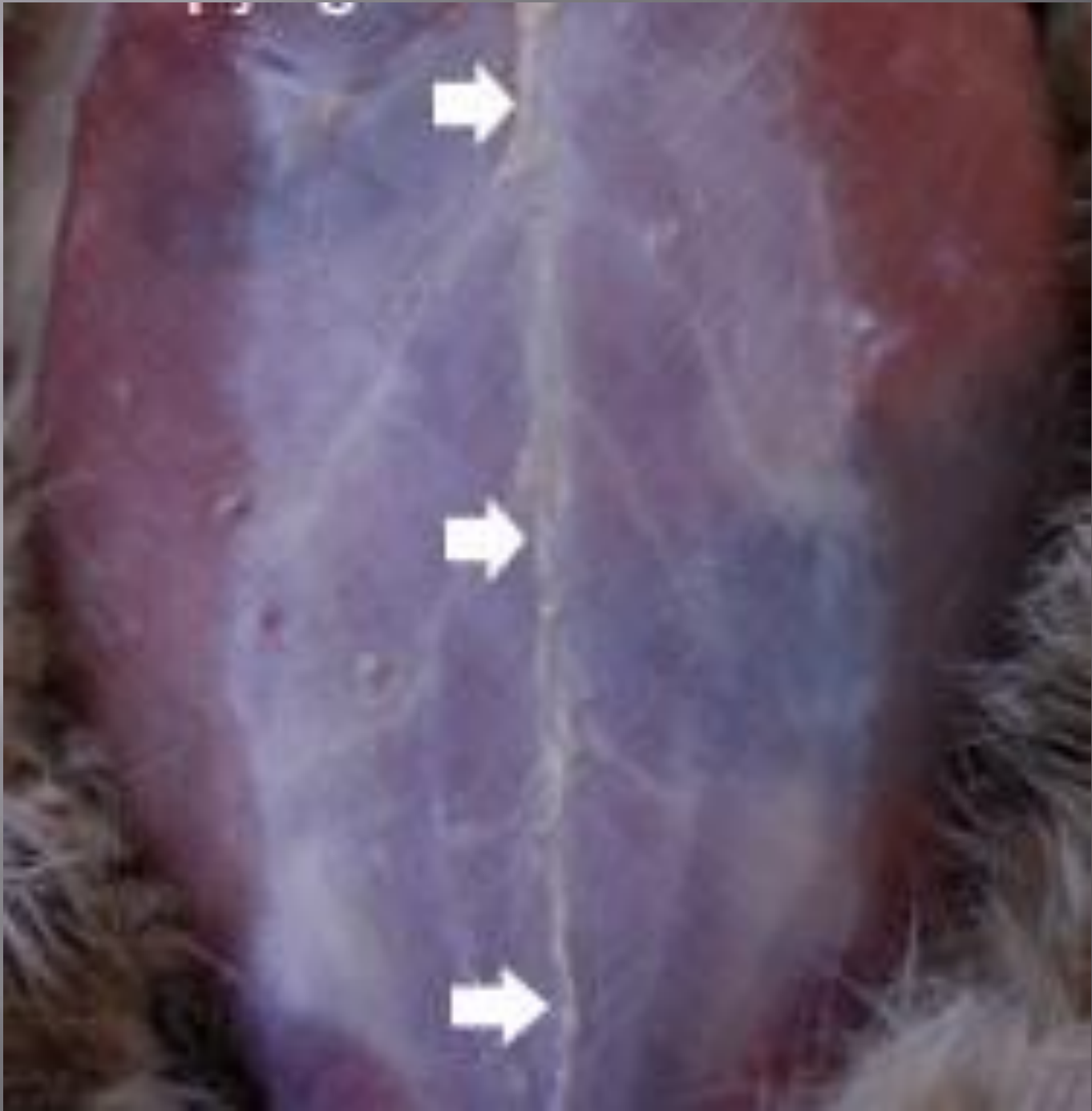


Maltese X, F, 11 years
Difficulty in peeing and had
passed "sticky urine"

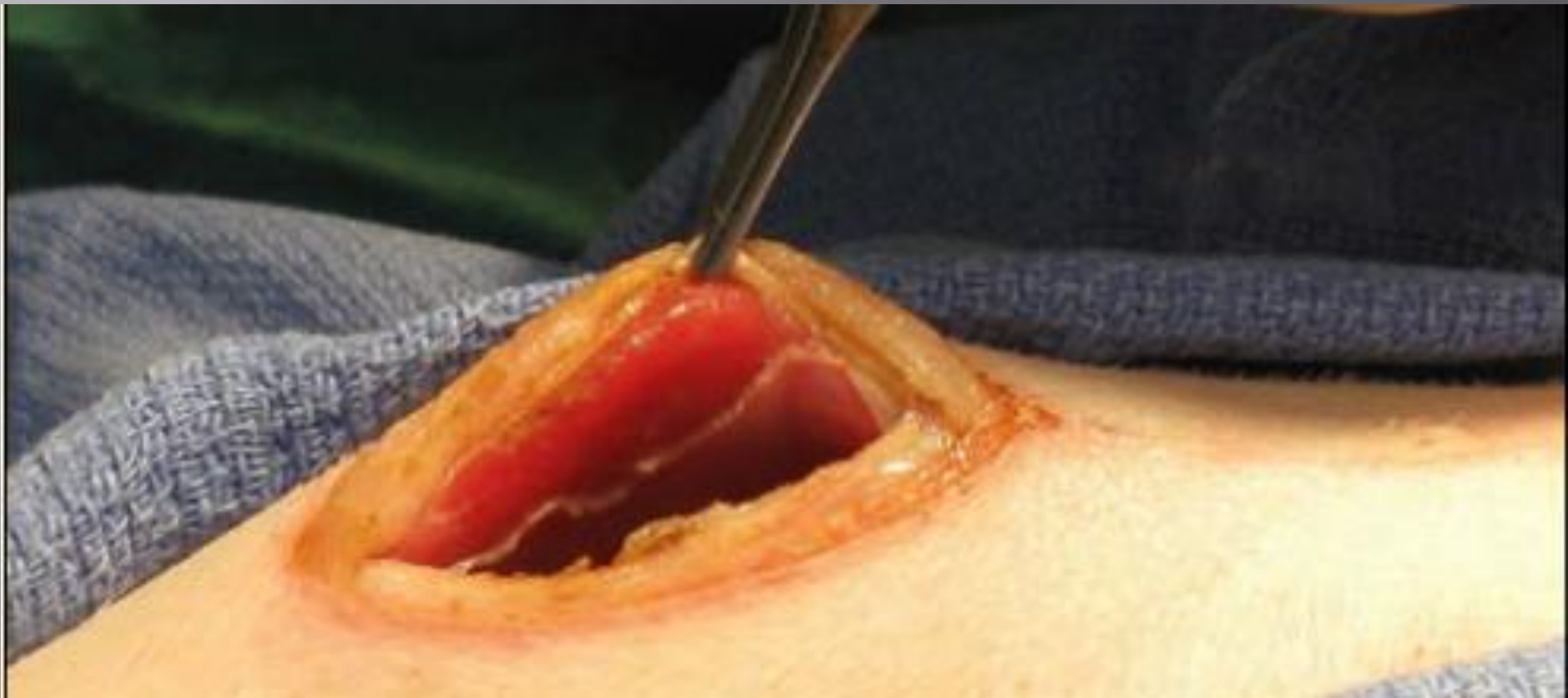
toopayvetts.com
Dec 15, 2017

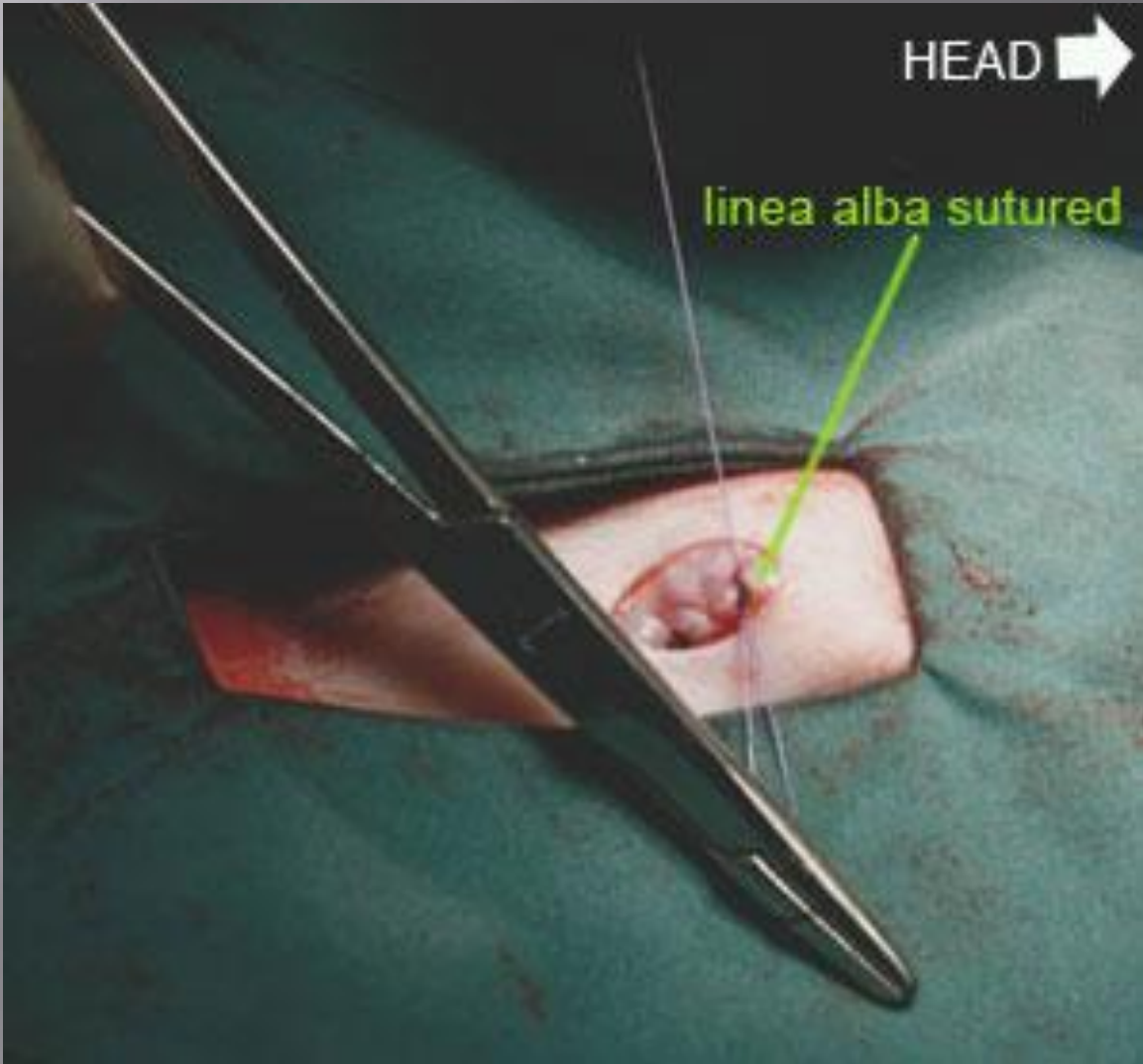












HEAD →

linea alba sutured



MIŠIĆI REPA (MM. CAUDAE SEU COCCYGIS)

Mm. sacrocaudales dorsales (između trnastih i transverzalnih izdanaka)

- Mm. sacrocaudales dorsales mediales - kaudalni nastavak multifidusa
- Mm. sacrocaudales dorsales laterales - kaudalni nastavak longisimusa

Mm. sacrocaudales ventrales

- Mm. sacrocaudales ventrales mediales
- Mm. sacrocaudales ventrales laterales

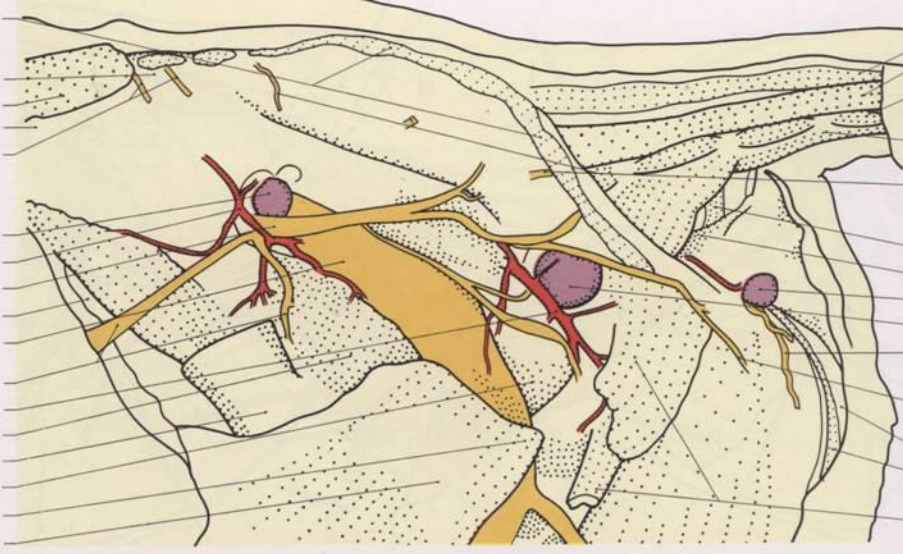
Mm. intertransversarii caudae

M. coccygeus - tanak, pločast, kos mišić

- od *Lig. sacrotuberale latum* do transverzalnih izdanaka prvih repnih pršljenova

Funkcija: pri obostranom delovanju učvršćuju rep
pri jednostranom delovanju vuku rep u stranu

origins of *m. gluteobiceps*
 from sacrum and
 sacrotuberous ligament
 ilium, tuber sacrale
m. gluteus medius
 ilium, tuber coxae
 nn. lumbales V, VI
 rr. cutanei laterales
 dorsales (nn. clunium
 craniales)
 ln. gluteus
 a. glutea cranialis
 n. gluteus caudalis
m. iliacus
 n. ischiadicus
 n. gluteus cranialis
 a. glutea caudalis
m. gluteus profundus
m. gluteus accessorius
 mm. gemelli
m. gluteus medius
 femur, greater trochanter



m. sacrocaudalis dorsalis:
 medialis
 lateralis
m.m. intertransversarii
 caudae
m. sacrocaudalis ventralis
 lateralis
 nn. sacrales I-III
 rr. laterales dorsales
 (nn. clunium medii)
m. retractor penis
m. levator ani
 ln. tuberalis
 ln. ischiadicus
 n. pudendus r. cutaneus
 distalis
 n. pudendus r. cutaneus
 proximalis
m. bulbospongiosus
m. retractor penis (pars
 penina)
 ischiatic origins of
m. gluteobiceps



DO VIĐENJA!