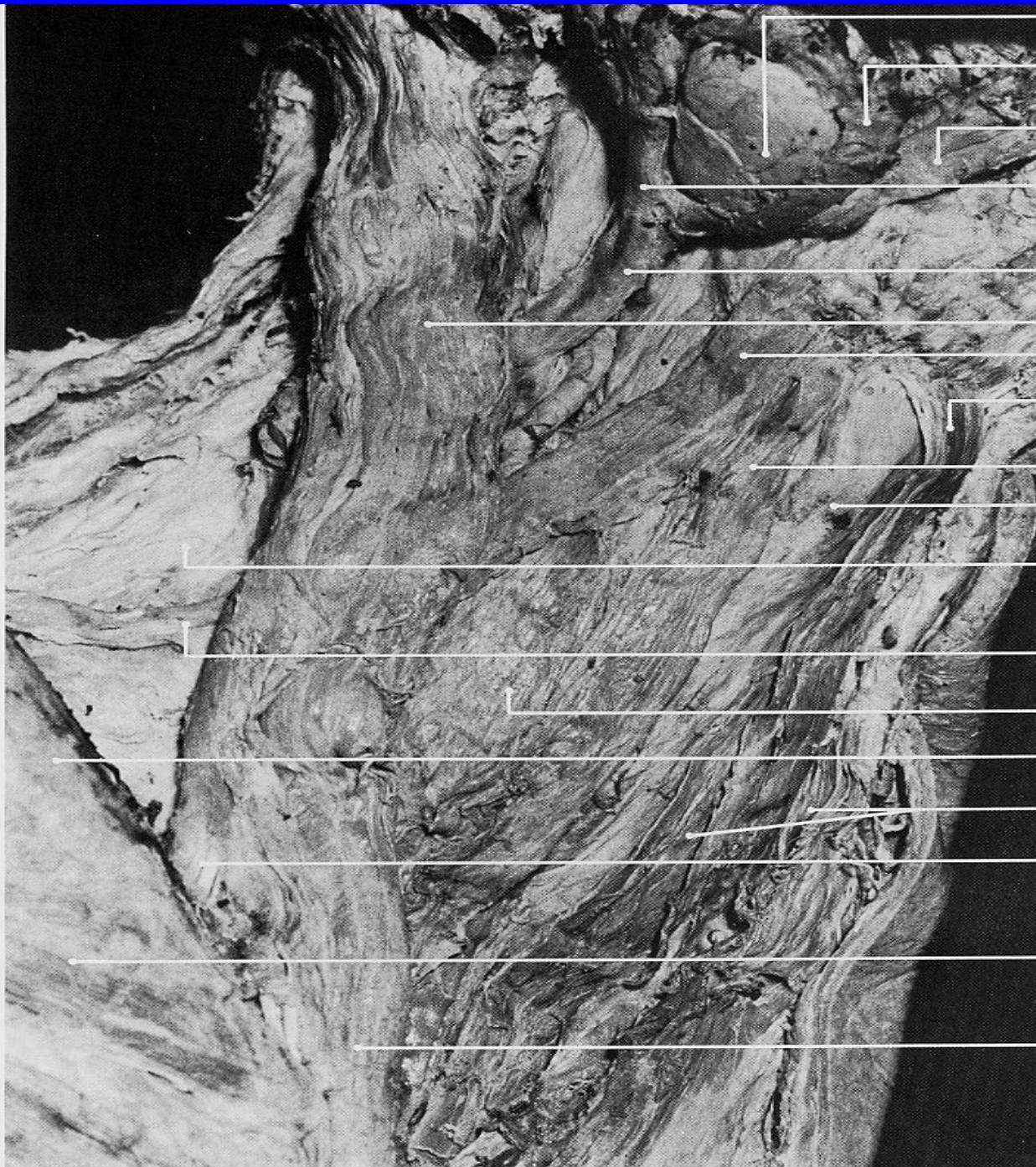


**sternocleidomastoid  
(clavicular head)**

**omohyoid  
(inferior belly)**

**clavicle**

**masseter  
(superficial portion)**



submandibular gland

anterior facial v.

digastricus  
(anterior belly)

posterior facial v.

common facial v.

sternocleidomastoid  
omohyoid  
(superior belly)

sternohyoid (left)

sternohyoid (right)

pretracheal fascia

fascial floor of  
posterior triangle  
of neck

omohyoid  
(inferior belly)

sternothyroid (right)

clavicle

sternothyroid (left)

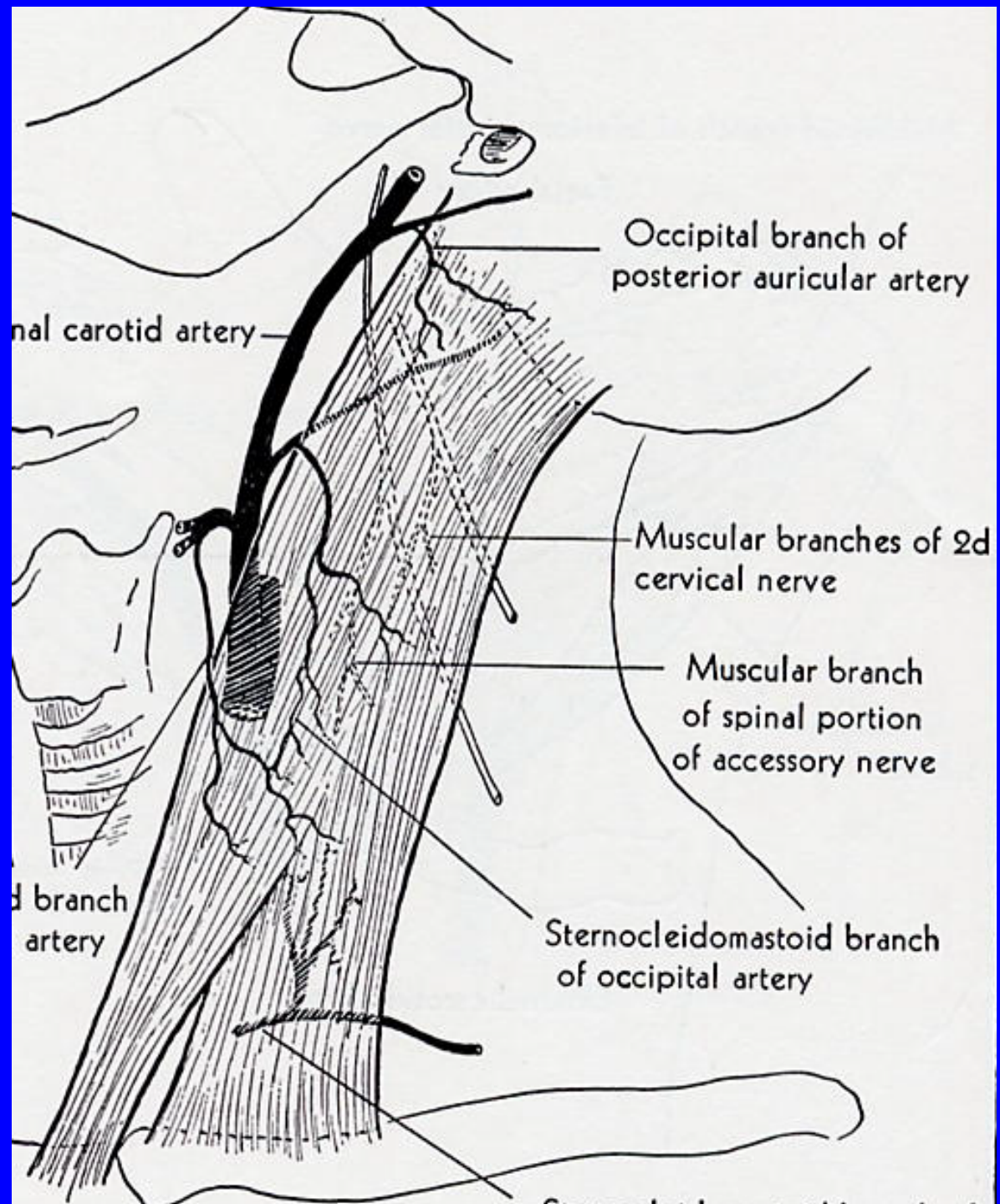
sternocleidomastoid  
(clavicular head)

pectoralis major  
(clavicular portion)

sternocleidomastoid  
(sternal head)

# STERNOCLEIDO MASTOID

- ORIGIN:** sternal head: anterior surface of manubrium, clavicular head: upper surface of the medial 1/3 of clavicle.
- INS:** lateral surface of mastoid process and lateral 1/2 of the superior nuchal line.
- ACT:** unilateral action draws head toward the shoulder and rotates it. Bilateral action flexes the head, raise thorax when head is fixed.
- NERVE:** C2 spinal nerve and accessory nerve.  
**ROOT:** C1-C5 mainly C2

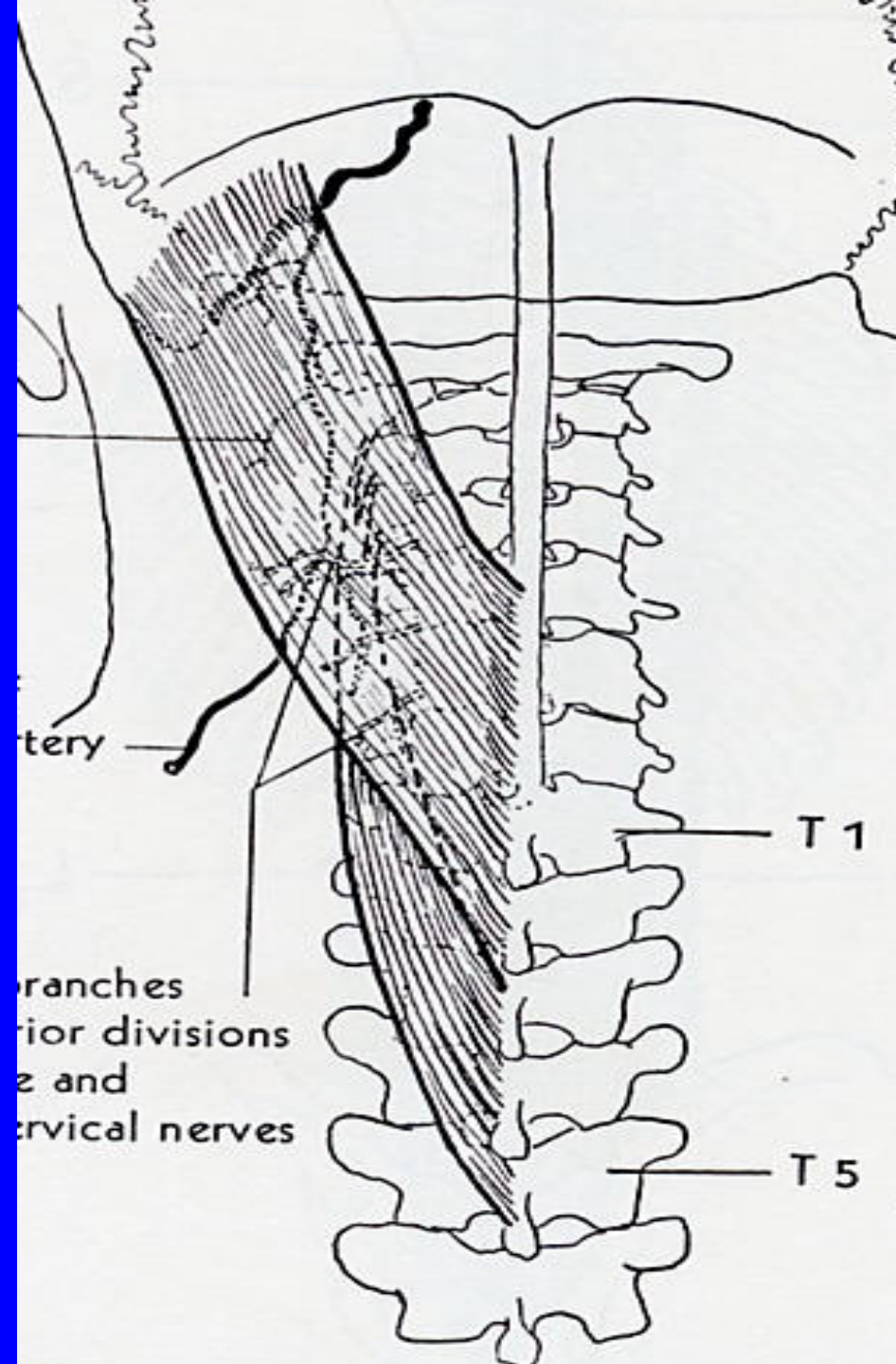


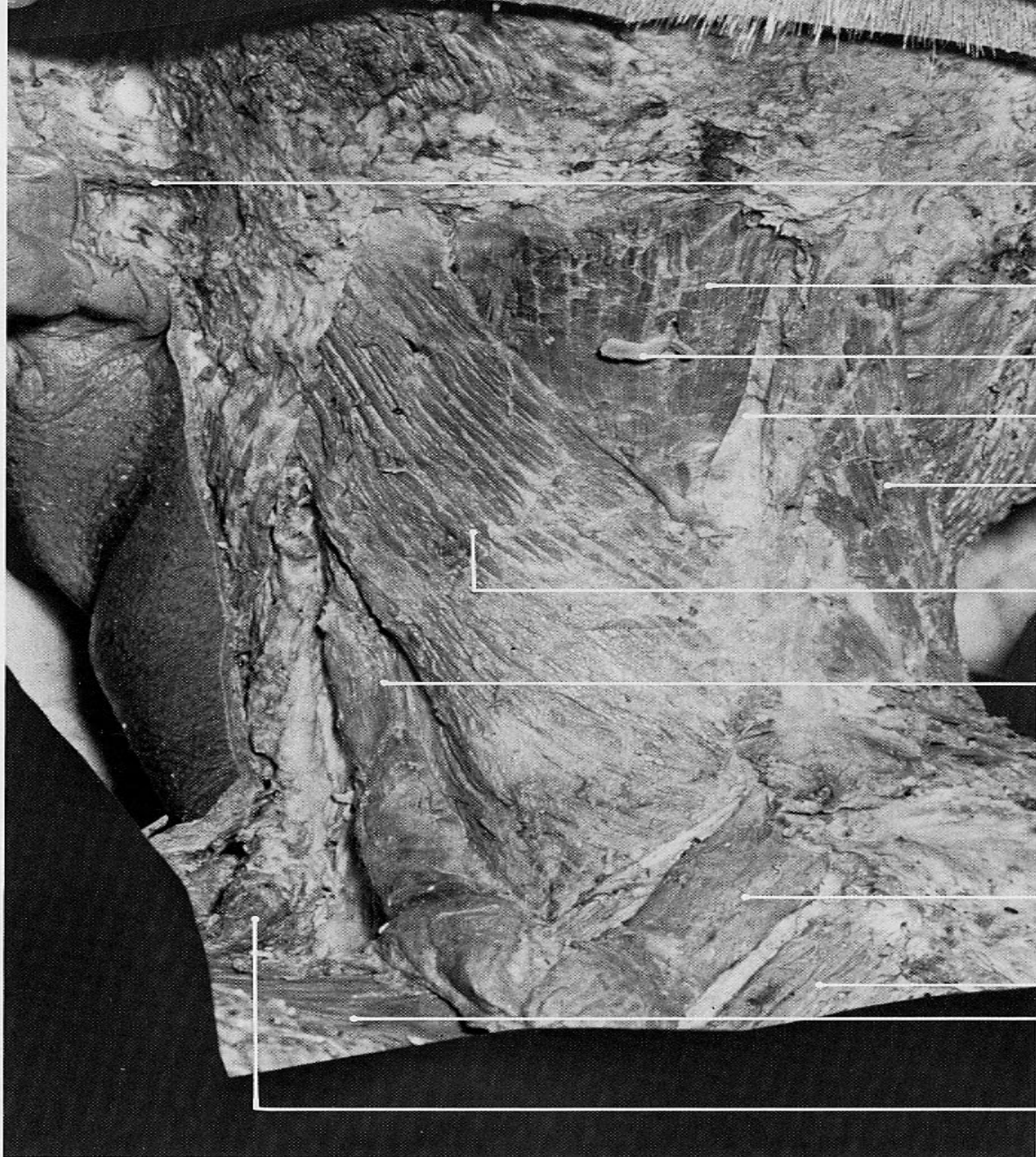
## 5.1 SPLENIUS CAPITIS (SUPINE)



# SPLENIUS CAPITIS ET CERVICIS

- ORIGIN: Capitis: lower ½ of lig. nuchae and C7-T3,4 spines. Sp. Cervicis: T3-T6 spines.
- INSERTION: Sp. Capitis: mastoid process and lateral part of the superior nuchal line. Sp. cervicis: posterior tubercles of transverse processes of C1-3,C4.
- ACTION: Together, they extend, laterally flex head and neck and rotate head slightly.
- NERVE: Lateral branches of posterior divisions of middle and lower cervical.





auricularis posterior

semispinalis

posterior primary  
division of second  
cervical n.

ligamentum nuchae

right trapezius  
(upper portion)

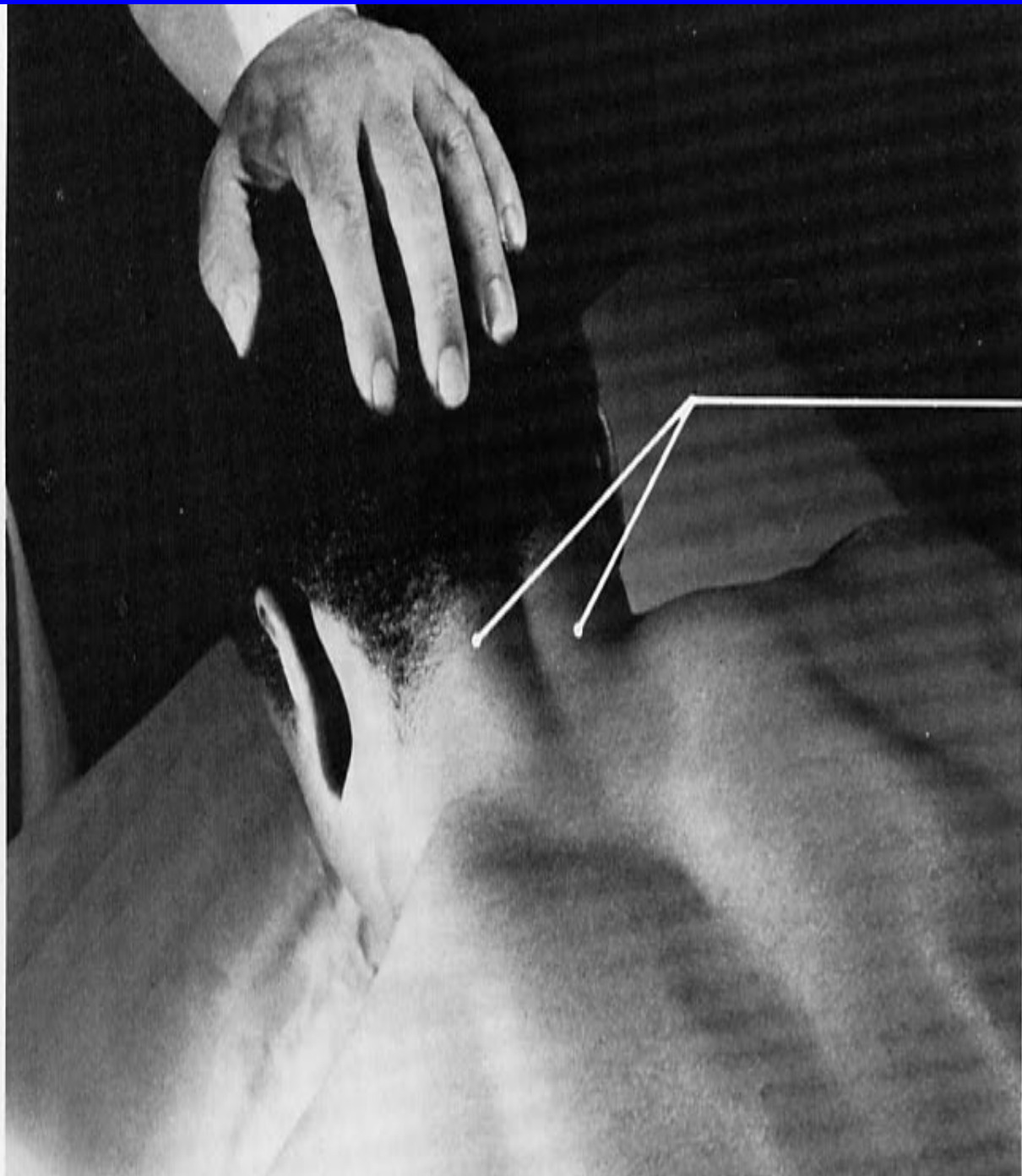
splenius capitis et  
cervicis

levator scapulae

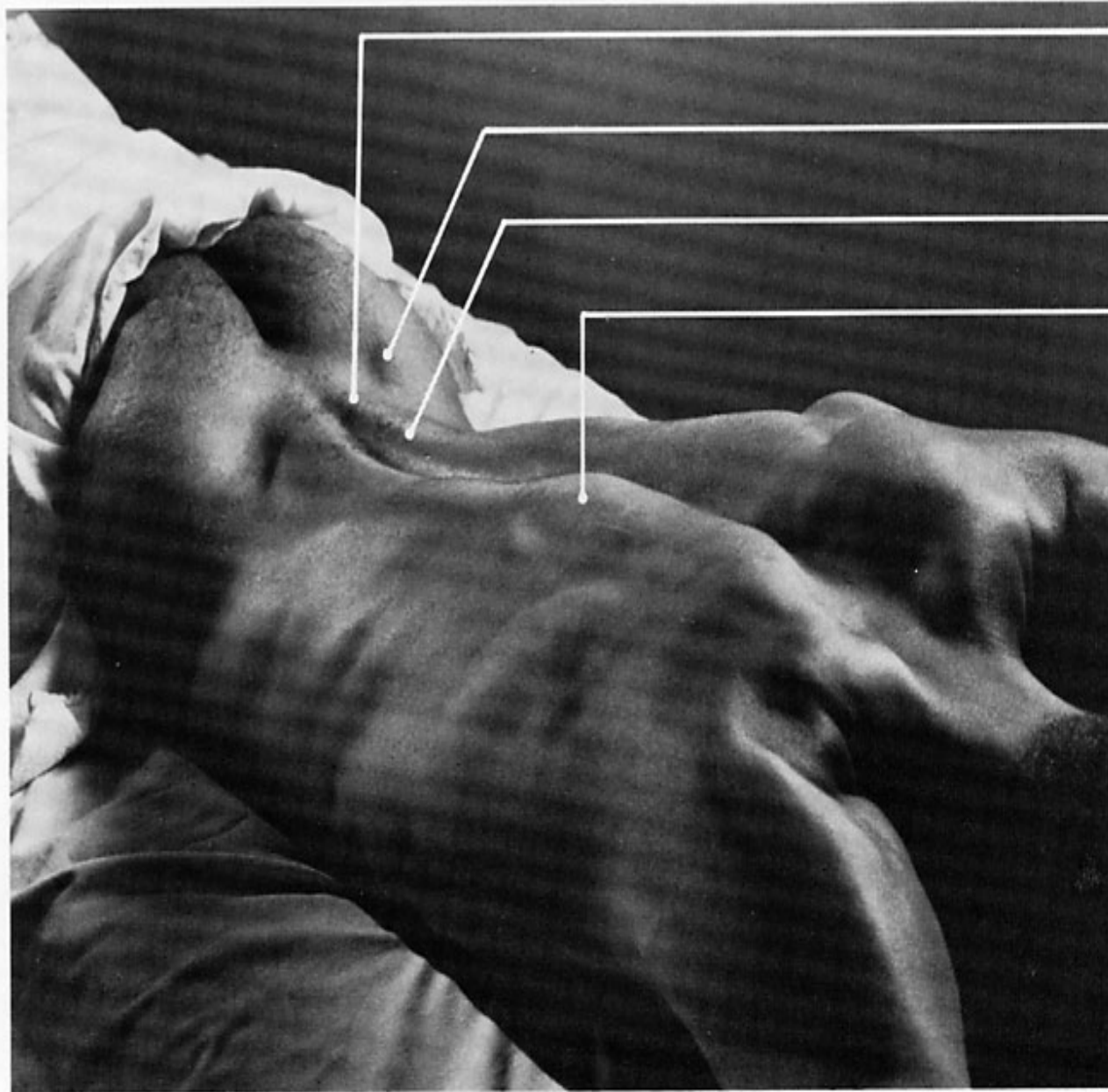
rhomboideus minor

rhomboideus major  
supraspinatus

sternocleidomastoid



trapezius (upper portion)  
overlying  
**cervical paraspinal muscles**



**sacral paraspinal muscles**

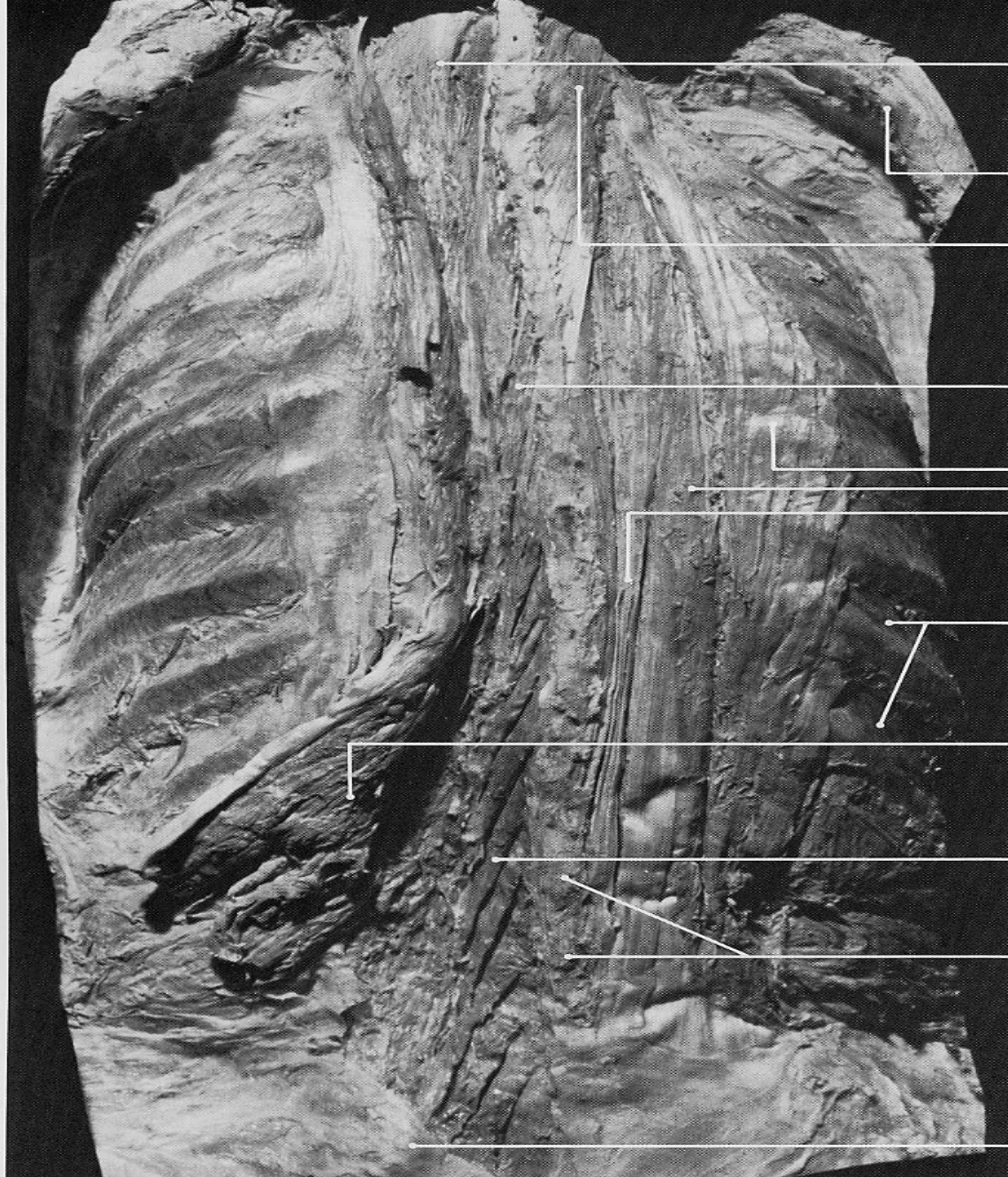
posterior superior iliac spine

**lumbar paraspinal muscles**

**thoracic paraspinal muscles**

FIGURE 2-15 Thoracic and lumbosacral paraspinal muscles.





semispinalis capitis

medial border of scapula (displaced upward and forward)

splenius capitis et cervicis

semispinalis dorsi (covering multifidus)

iliocostalis longissimus spinalis } erector spinae

external intercostal muscles

Erector spinae has been separated from the spinous processes and displaced laterally.

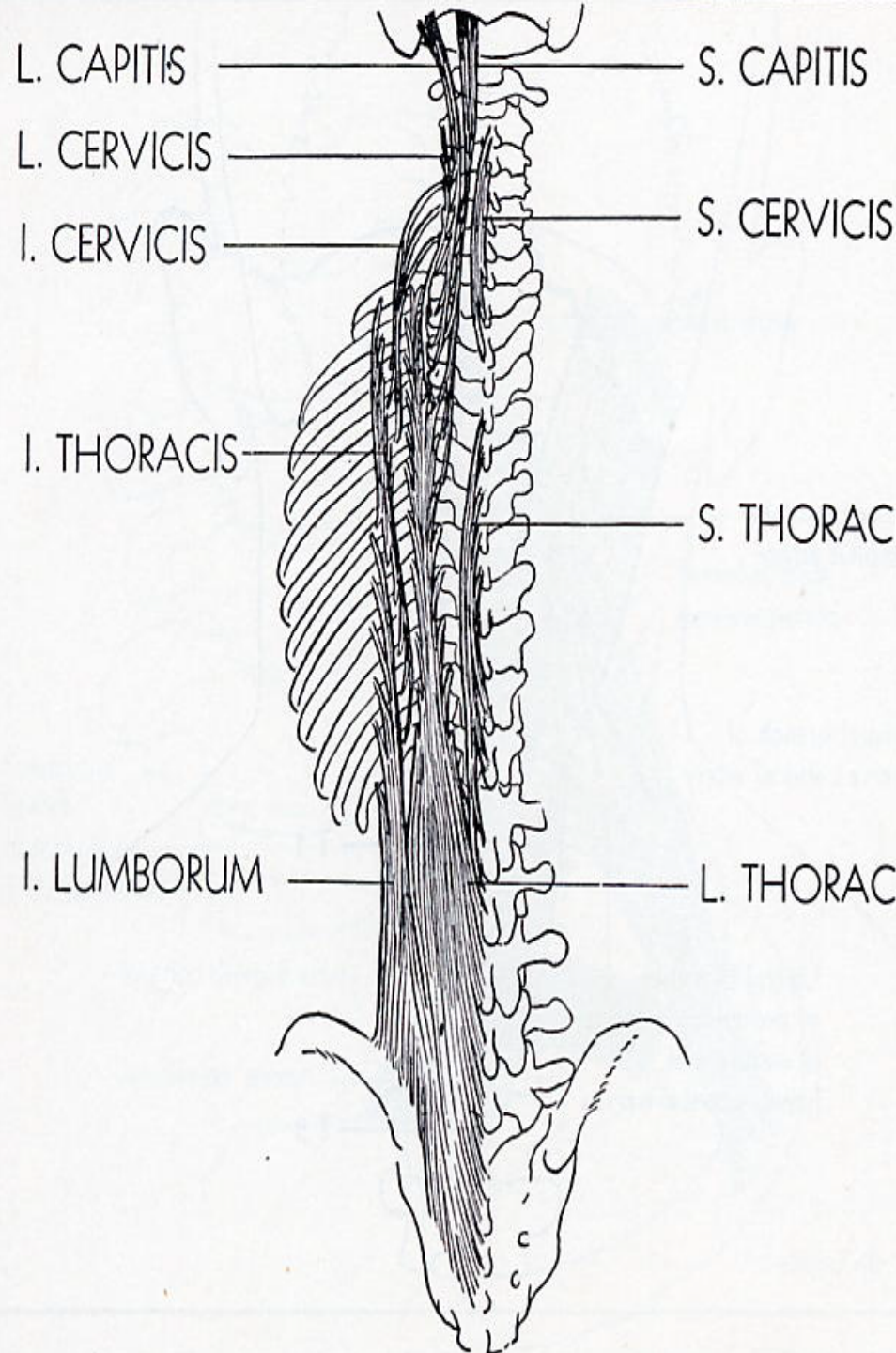
multifidus

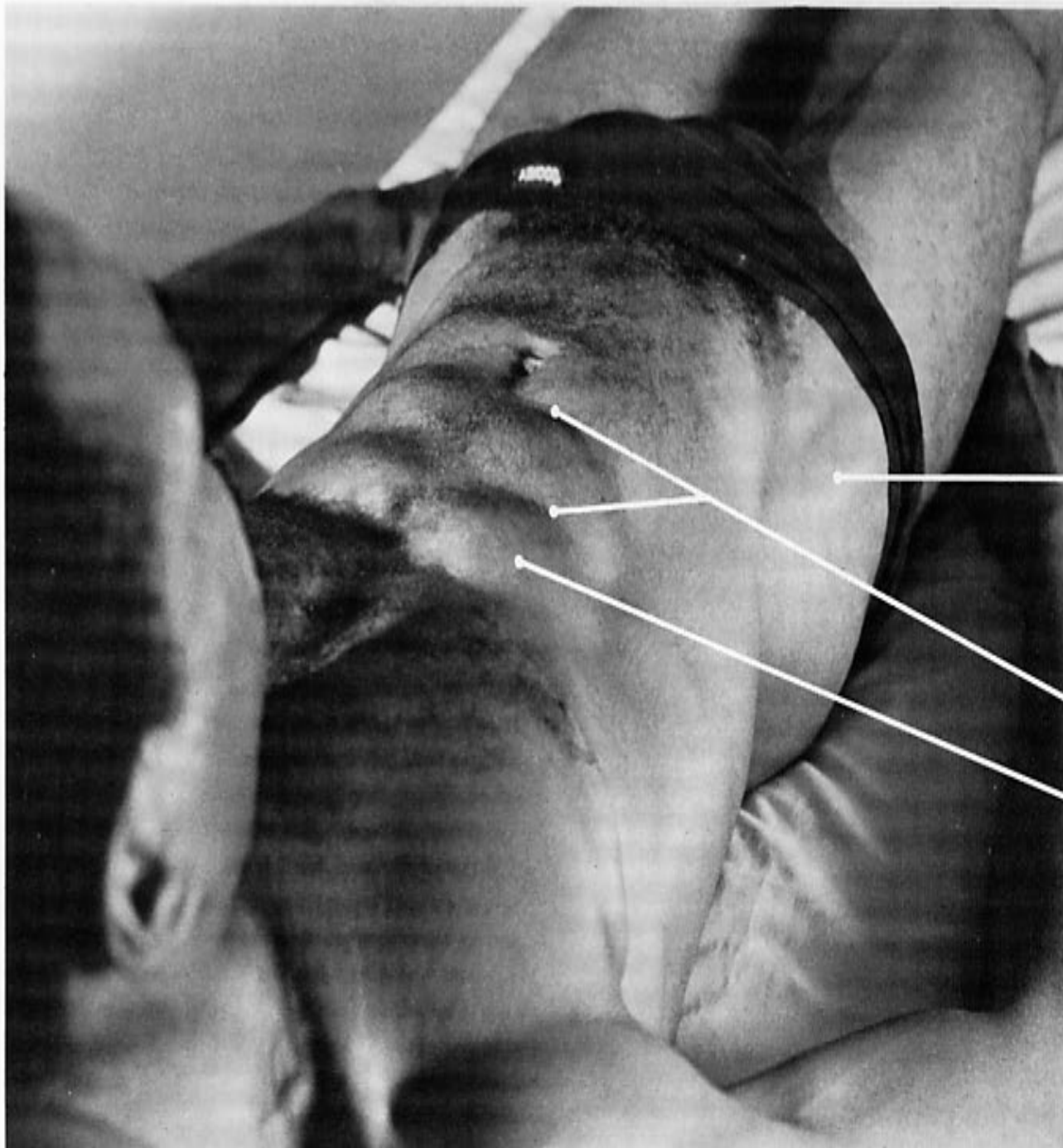
spinous processes of vertebrae

posterior superior iliac spine

# ERECTOR SPINAE

- ORIGIN AND INSERTION:** from the sacrum, crest of ilium, spines of T11, T12 and lumbar vertebrae. From lateral to medial it is comprised of the iliocostalis, longissimus, and spinalis.
- ACTION:** extends, laterally flexes and rotates vertebral column.
- NERVE:** posterior primary rami of spinal nerves according to the situation.





tensor fasciae latae

tendinous intersections

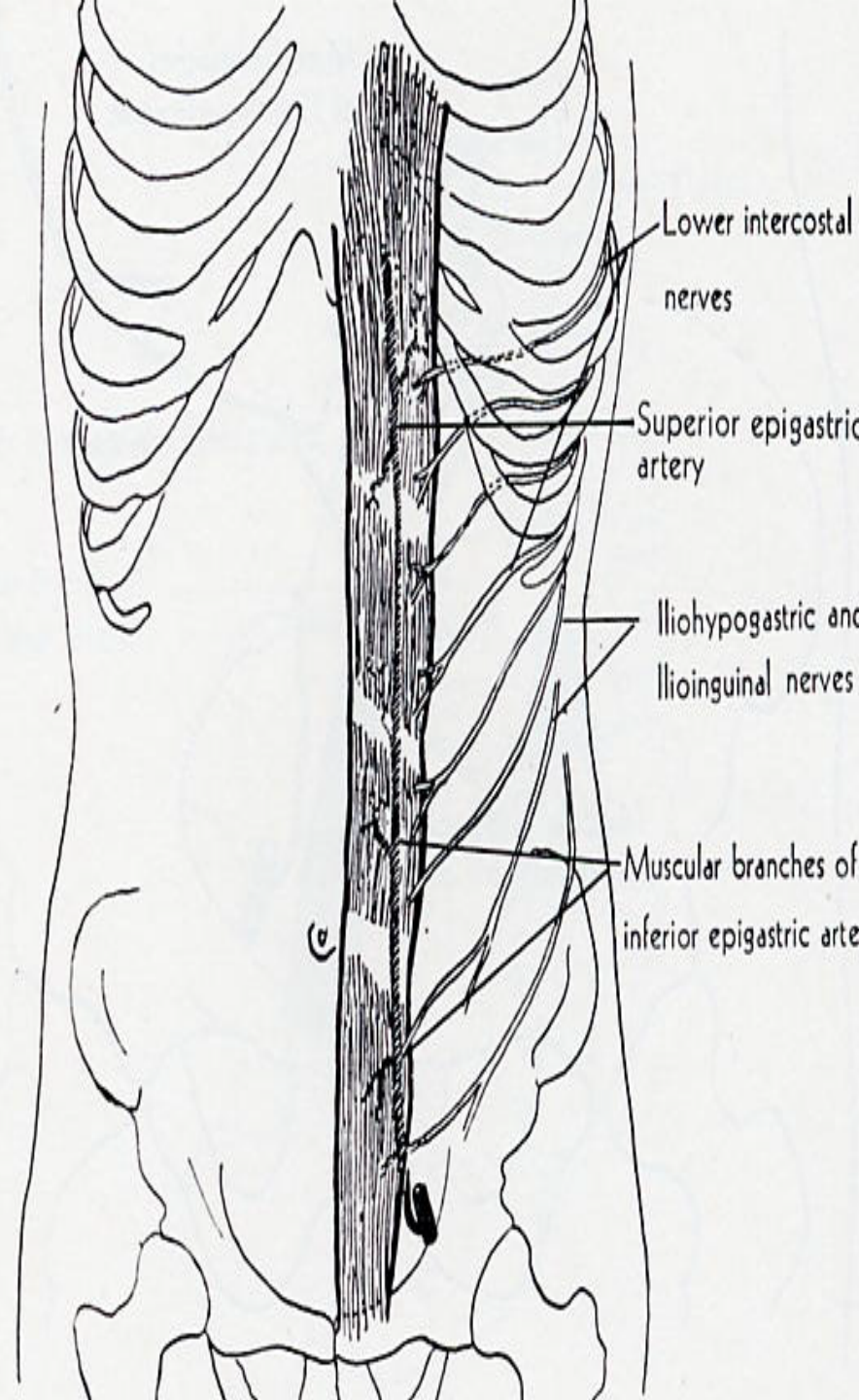
rectus abdominis

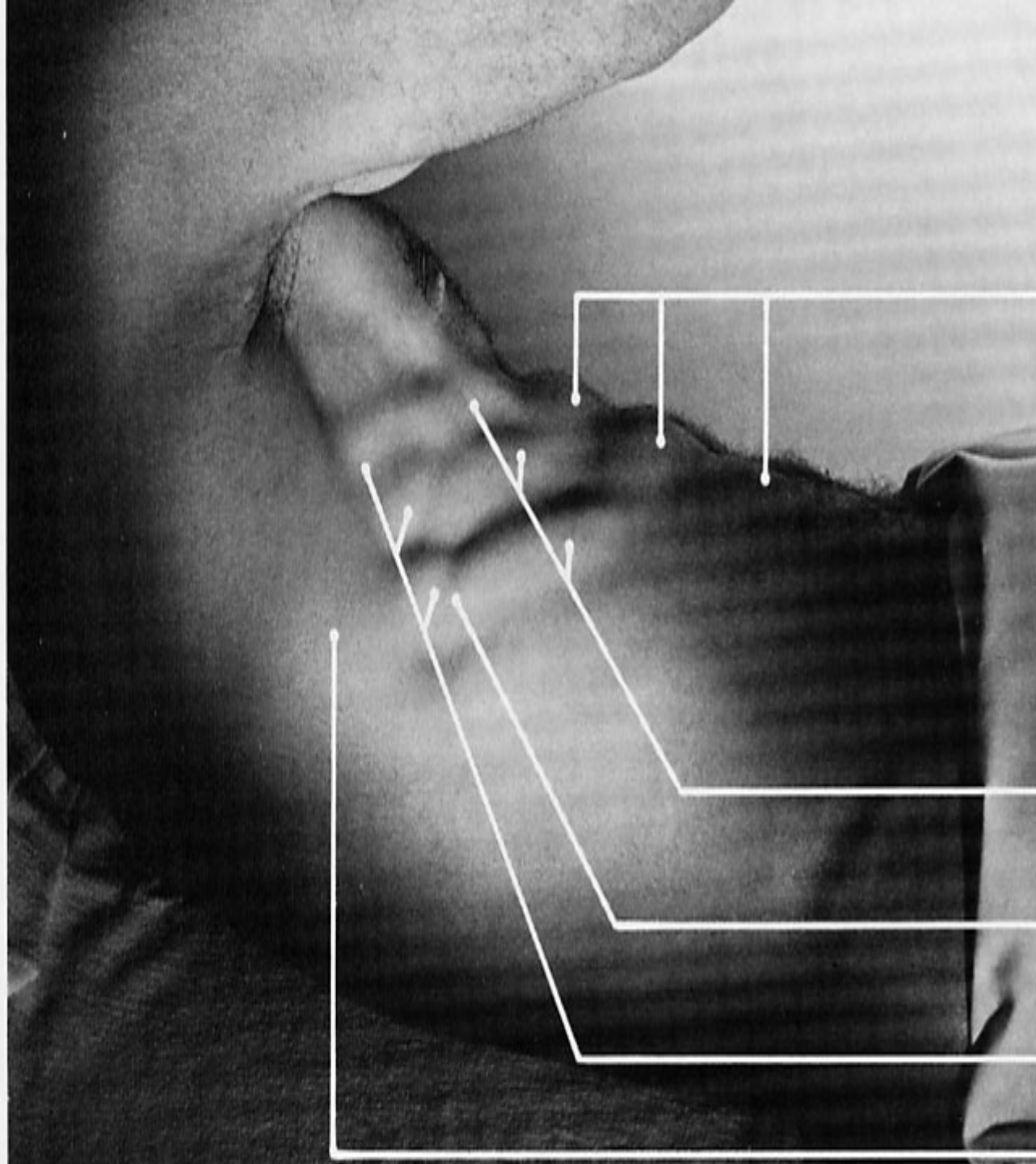


- xiphoid process
- costal margin
- linea alba
- external oblique (belly)
- costal margin
- linea semilunaris
- junction of muscle belly of external oblique with its aponeurotic tendinous portion
- rectus sheath (anterior lamina)
- umbilicus
- aponeurotic portion of external oblique
- anterior superior iliac spine
- linea semilunaris
- inguinal ligament
- superficial fascia of thigh
- inguinal ligament
- spermatic cord emerging from superficial inguinal ring

# RECTUS ABDOMINIS

- ORIGIN:** medial tendon from pubic symphysis, lateral tendon from crest of pubis.
- INSERTION:** anterior surface of the xiphoid process and surface of costal cartilages of 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> ribs.
- ACTION:** compresses abdomen, support abdominal viscera, active in forced expiration, flexes pelvis and vertebral column.
- NERVE;** anterior primary rami of lower 6 intercostal, iliohypogastric and ilioinguinal.





rectus abdominis

digitations of **external oblique**

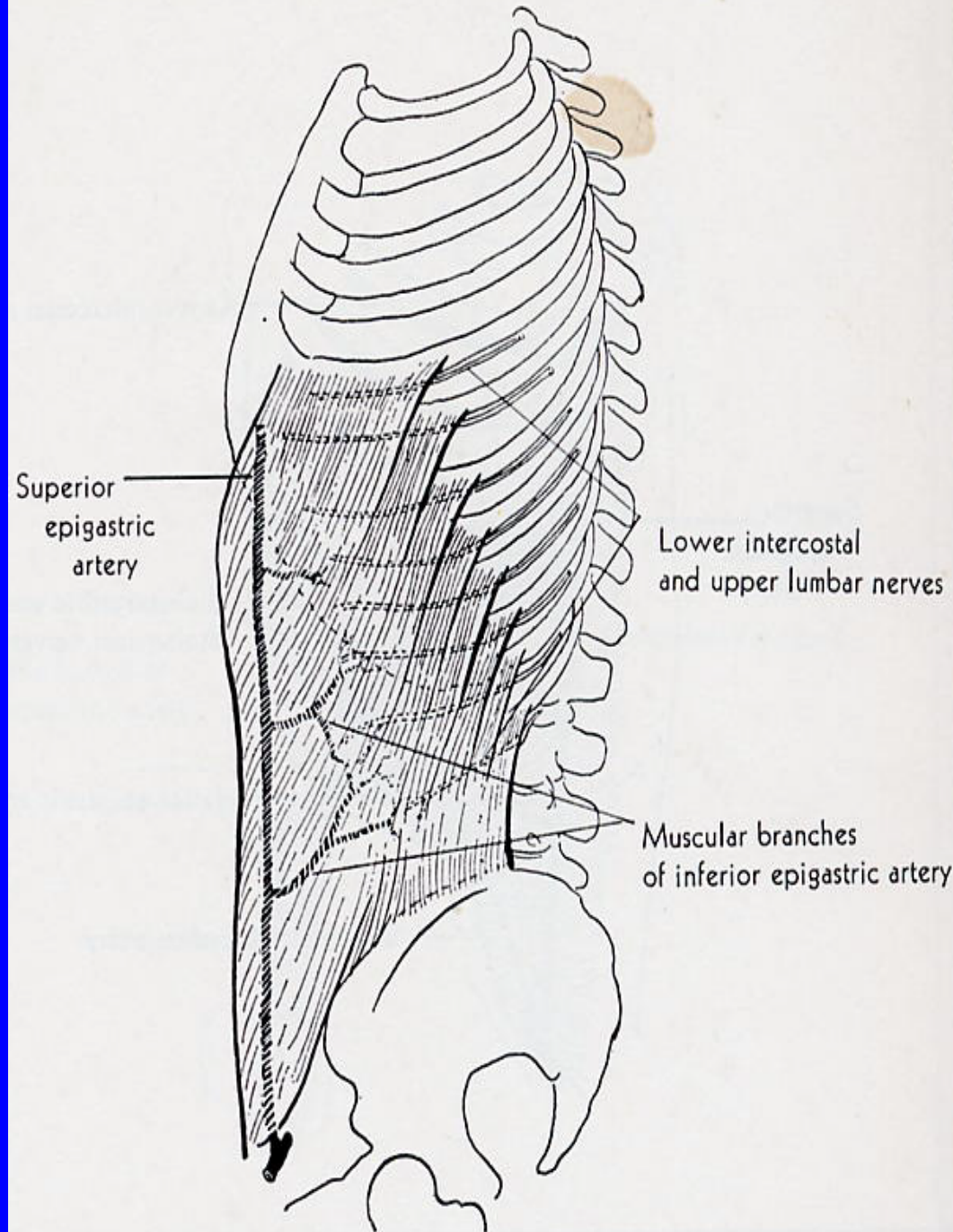
junction of **external oblique**  
and serratus anterior

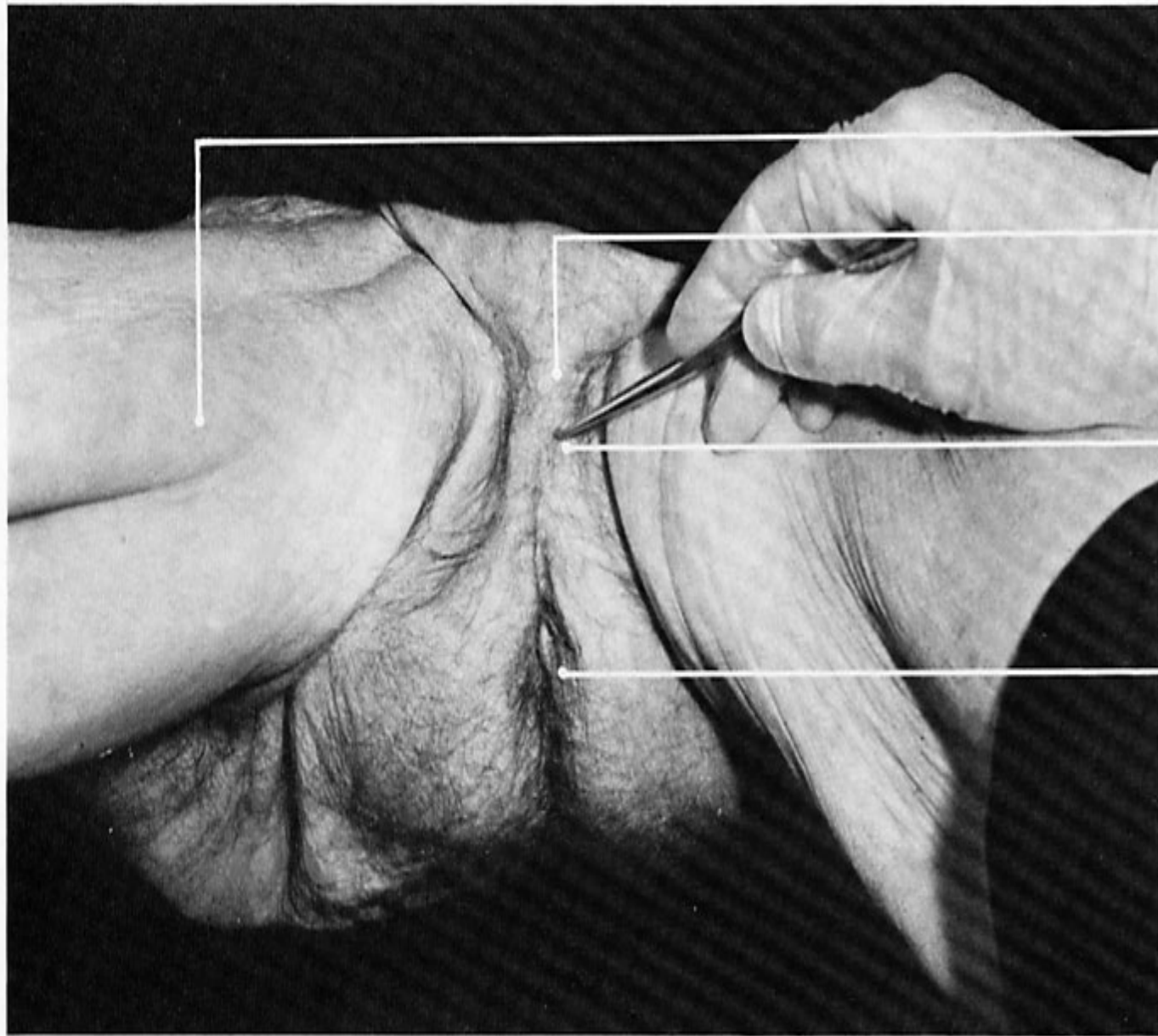
digitations of serratus anterior

latissimus dorsi

# EXTERNAL OBLIQUE

- ORIGIN:external surface of lower 8 ribs.
- INSERTION: from the lower ribs into outer lip of iliac crest; remainder into aponeurosis of anterior abdominal wall.
- ACTION: compresses abdomen, supports viscera, forced expiration.
- NERVE: anterior primary rami of lower 6 thoracic and upper 2 lumbar.





adductor longus

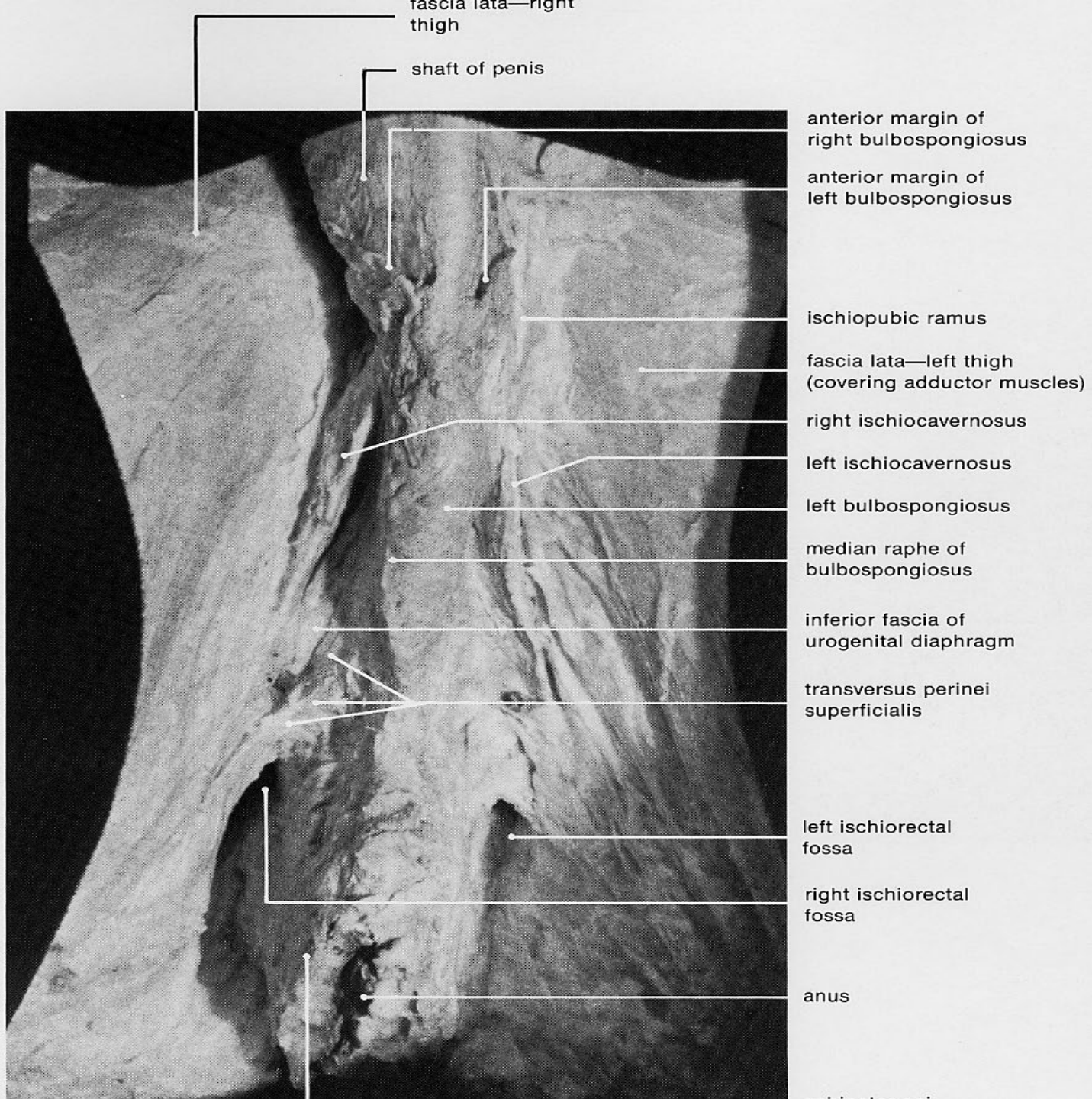
base of scrotum

pin insertion site  
for **left bulbospongiosus**

hemorrhoidal tag

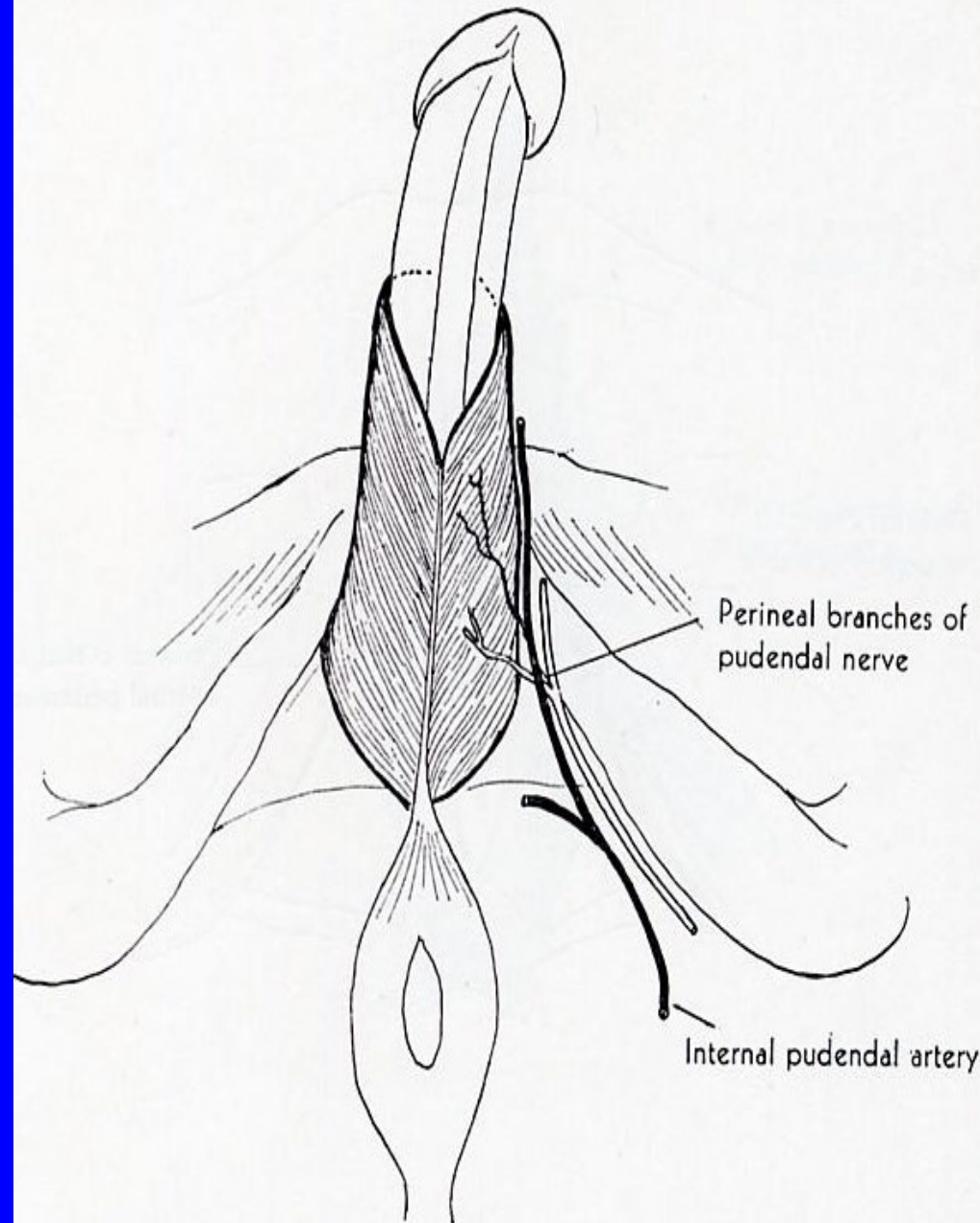
FIGURE 2-18 Bulbospongiosus (bulbocavernosus) in the male.

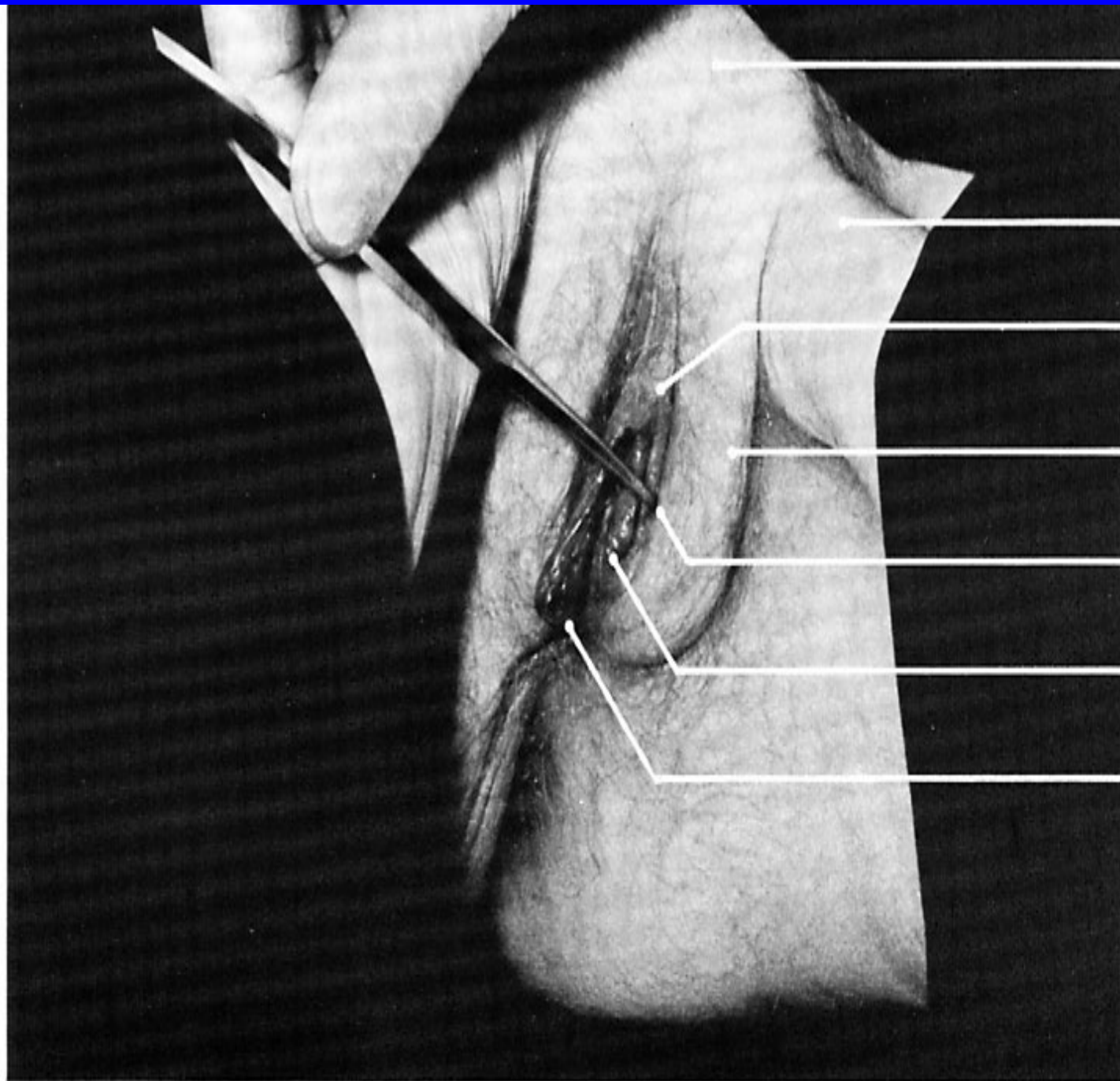




# BULBOCAVERNOSUS (MALE)

- Origin: Central tendinous point of perineum and median raphe in front.
- Insertion: Lower surface of perineal membrane, dorsal surface of corpus spongiosum, dorsum of penis
- Action: penile erection, empties urethra at end of micturation.
- Nerve: Perineal branches of pudendal





mons pubis

adductor longus

prepuce overlying  
glans clitoridis

labium majus

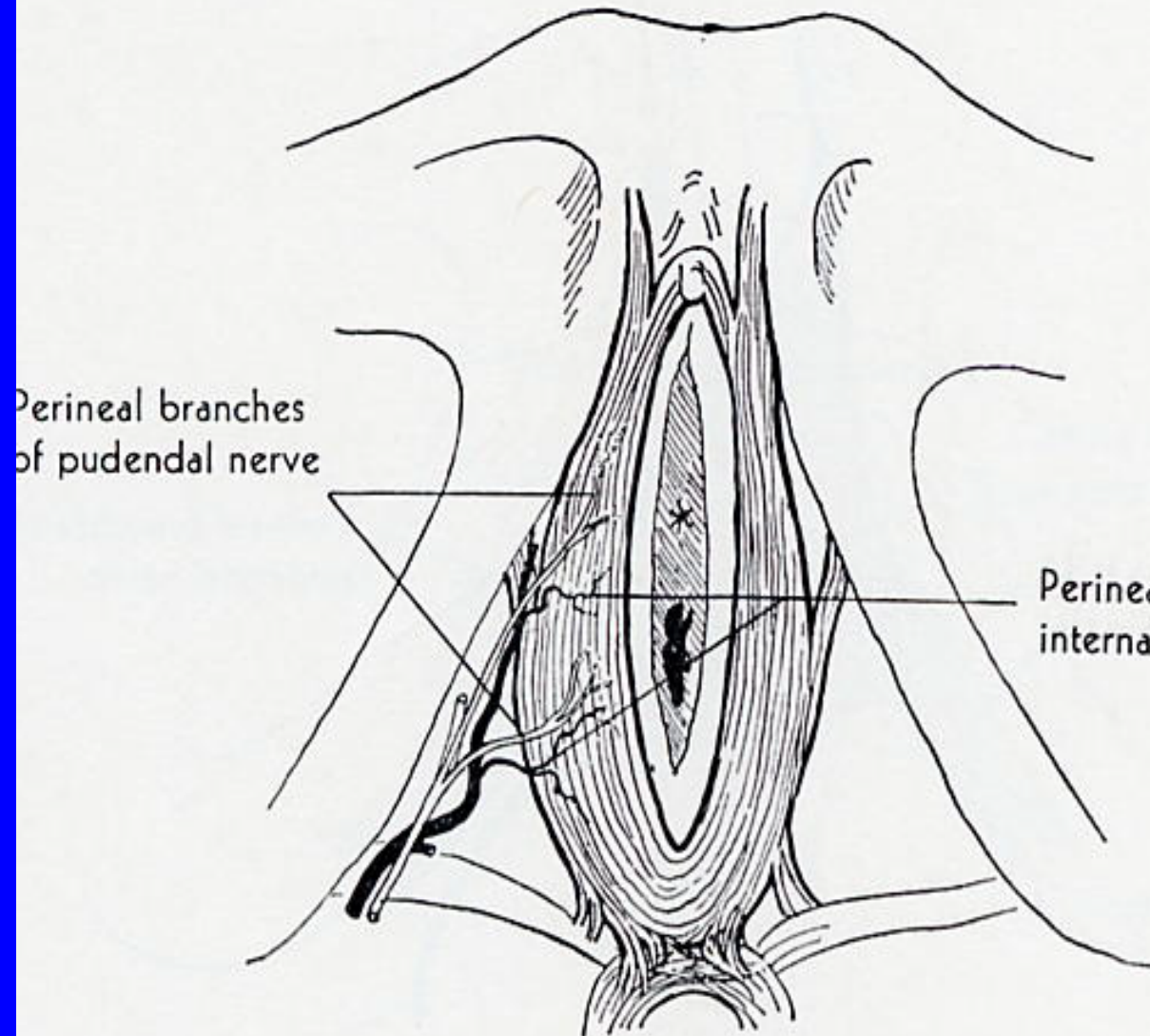
pin insertion site  
for **bulbospongiosus**

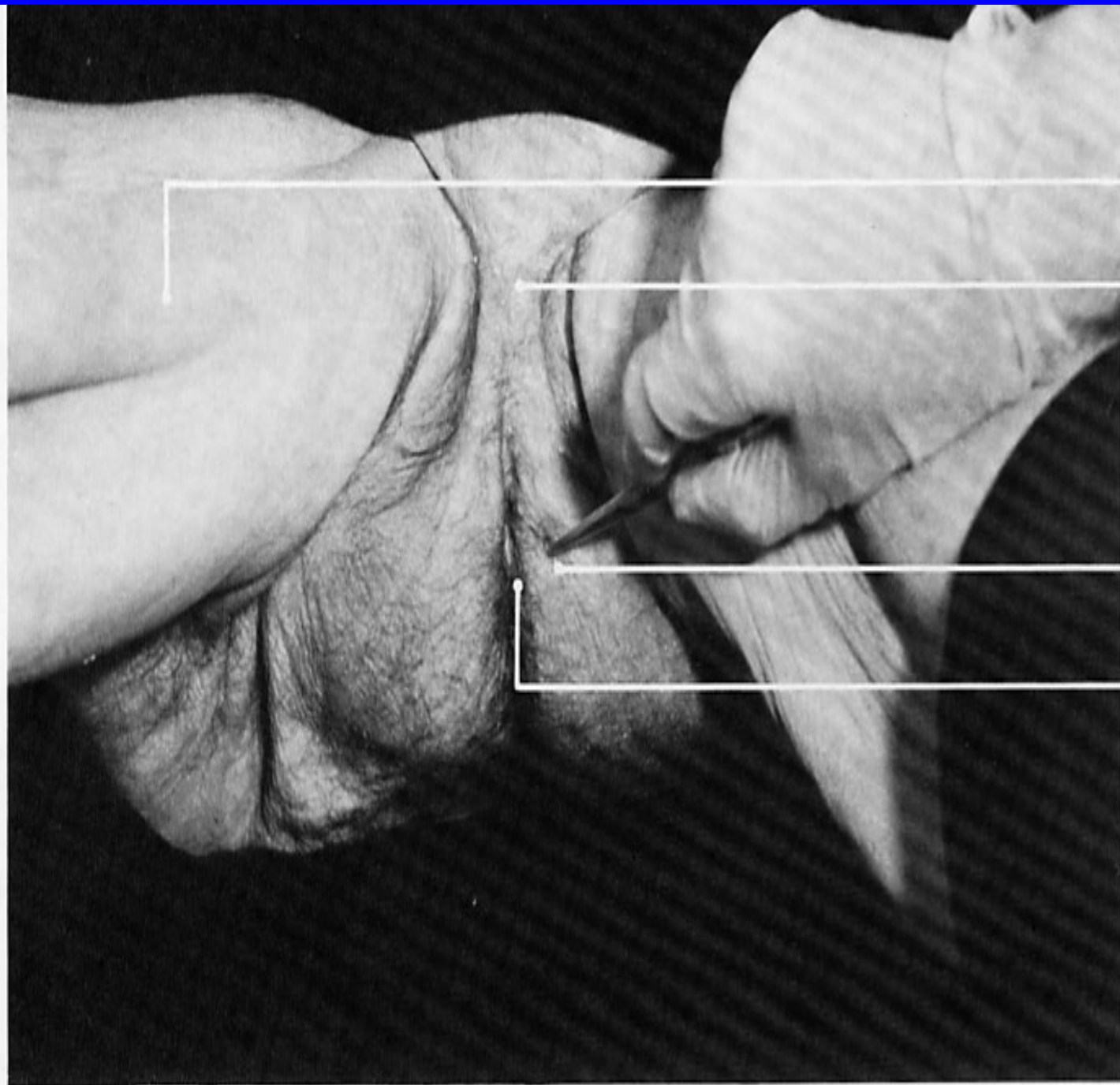
left labium minus

right labium minus

# BULBOCAVERNOSUS (FEMALE)

- Origin: Central tendinous point of perineum fibers surround vagina and bulb of vestibule.
- Insertion: Sides of pubic arch and corpora cavernosa clitoridis
- Action: Constricts vagina orifice and aids in erection of clitoris.
- Nerve: Perineal branches of pudendal





adductor longus

base of scrotum

pin insertion site for  
**sphincter ani externus**

hemorrhoidal tag

# ANAL SPHINCTER

- Origin: Superficial fibers from anococcygeal raphe; fibers decussate around anus and meet anteriorly in central point of perineum.
- Insertion: Deep fibers surround anal canal, attach posteriorly to coccyx and anteriorly to central point of perineum.
- Action: Closes anal orifice. Contraction increased voluntarily.
- Nerve: Perineal and inferior rectal branches of pudendal.

