

Anatomy of the Male genital System

5th stage

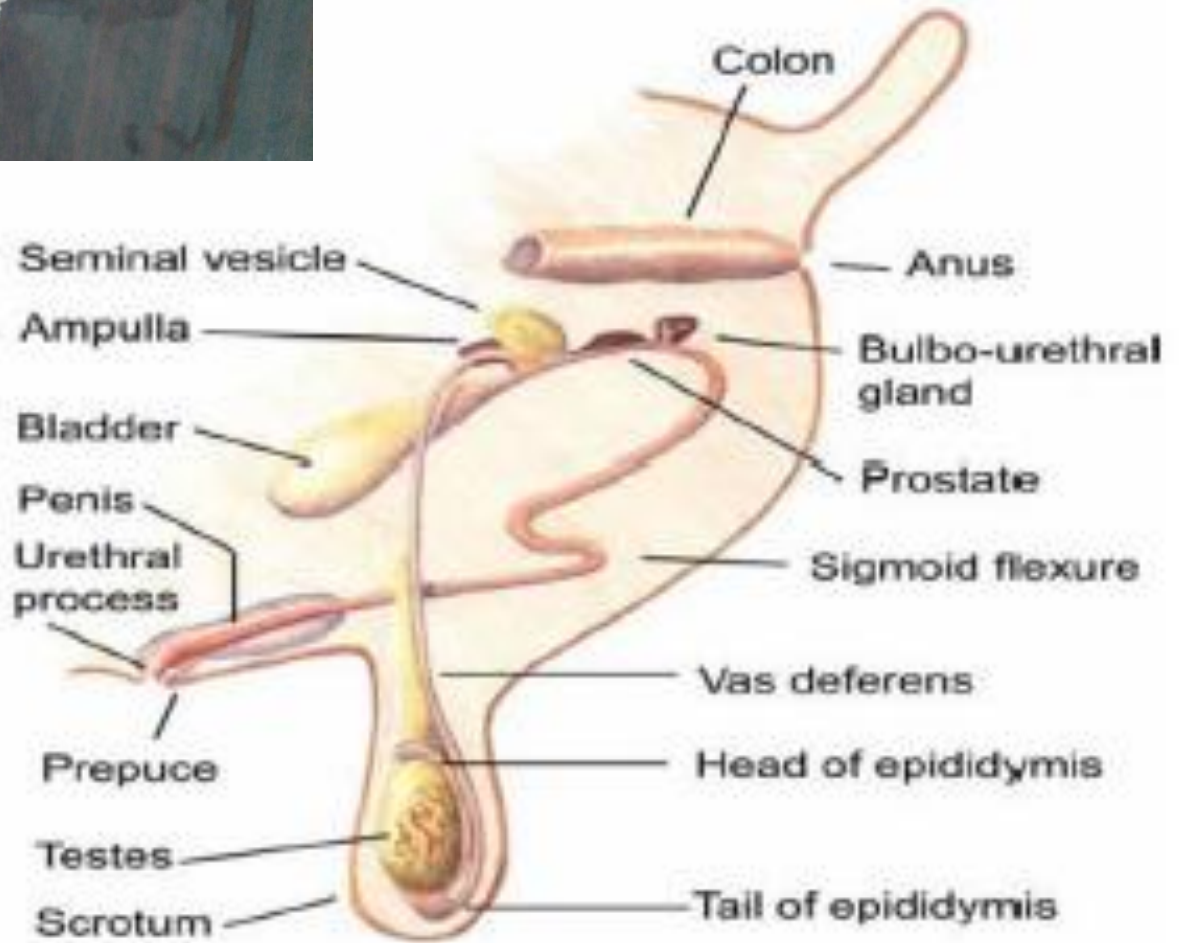
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Dr. Yaseen M.

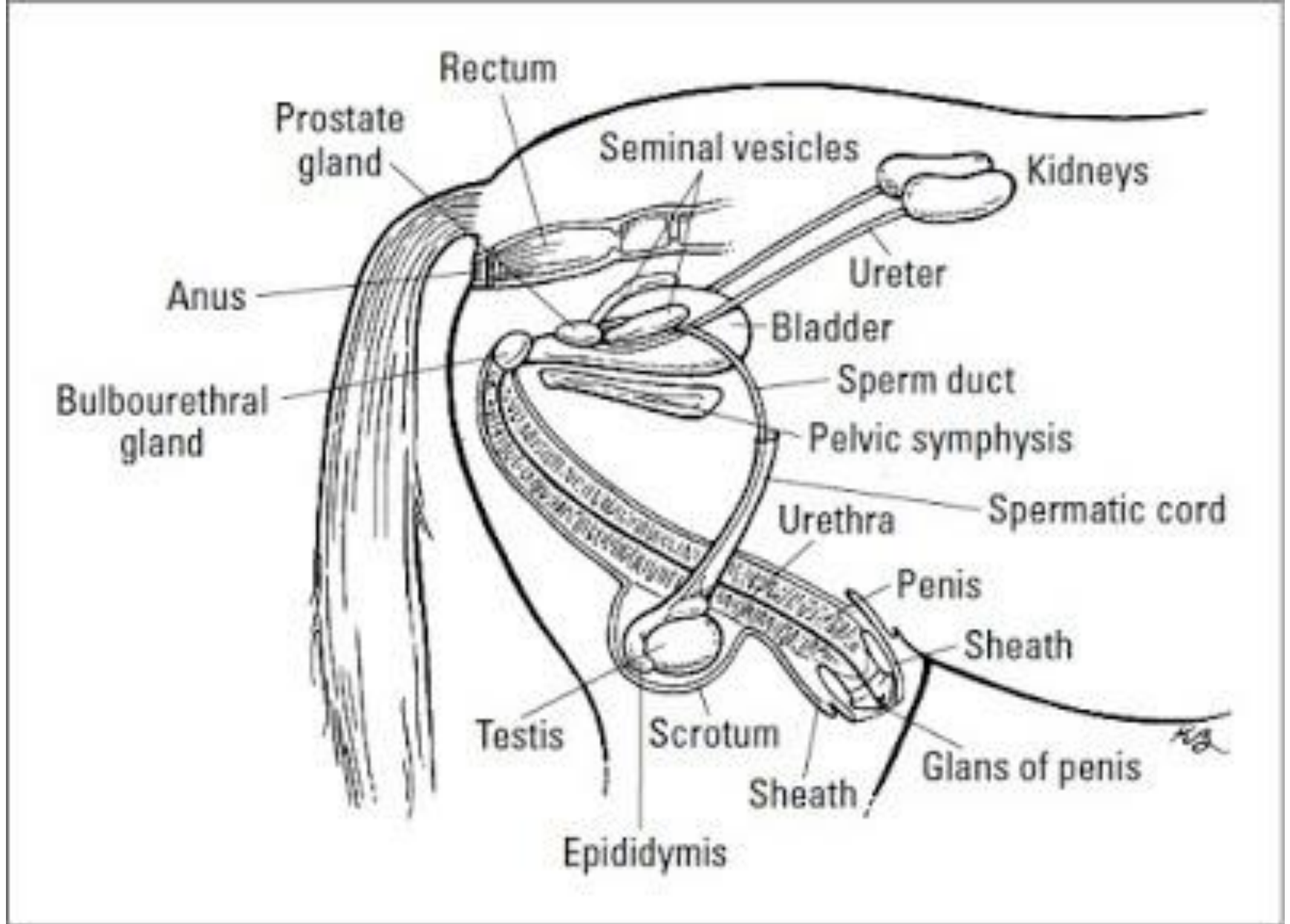
Ref.: -Reproduction in Farm Animals
(Hafez E.S.E and Hafez B.)

The male reproductive system consists of the:

1. Scrotum
2. Testes
3. Spermatic cord
4. Excretory duct system :
 - I. *Epididymis*
 - II. *Ductus deference*
 - III. *Urethra*
 - IV. *Accessory sex glands*
 - V. *Penis*

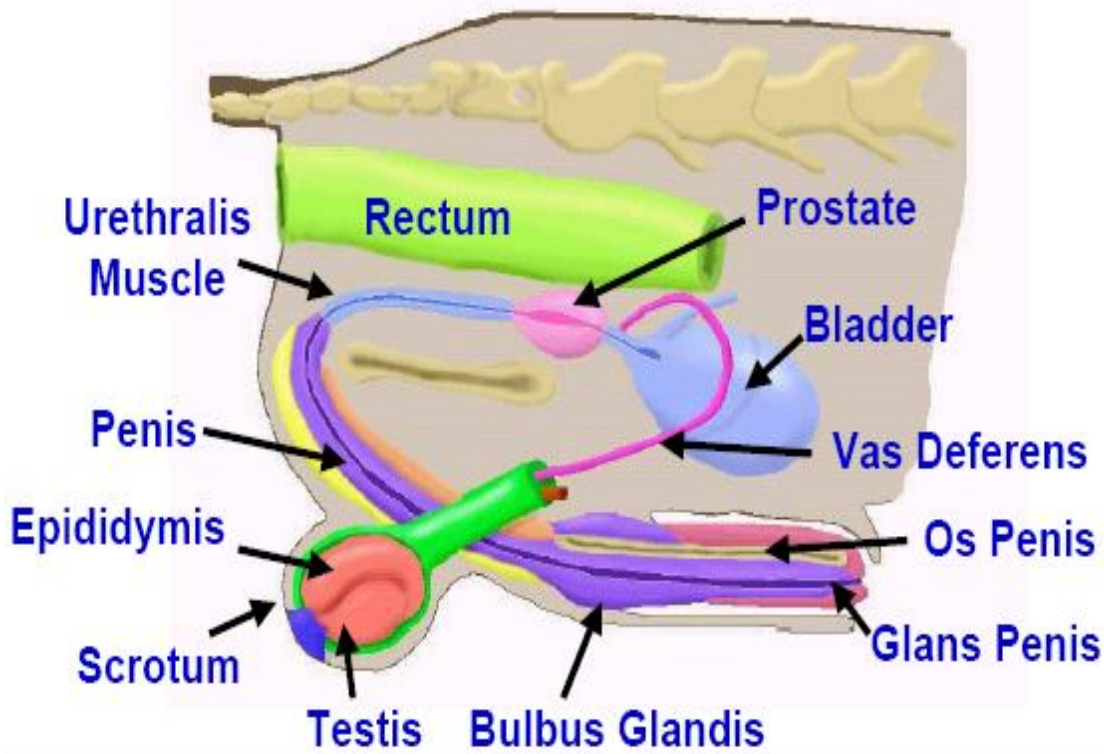


Small Ruminant



Stallion

Reproductive Tract Anatomy of the Male



Dog

- The scrotum consists of four major layers, Which are:

1) skin.

2) tunica dartos

3) tunica vaginalis:

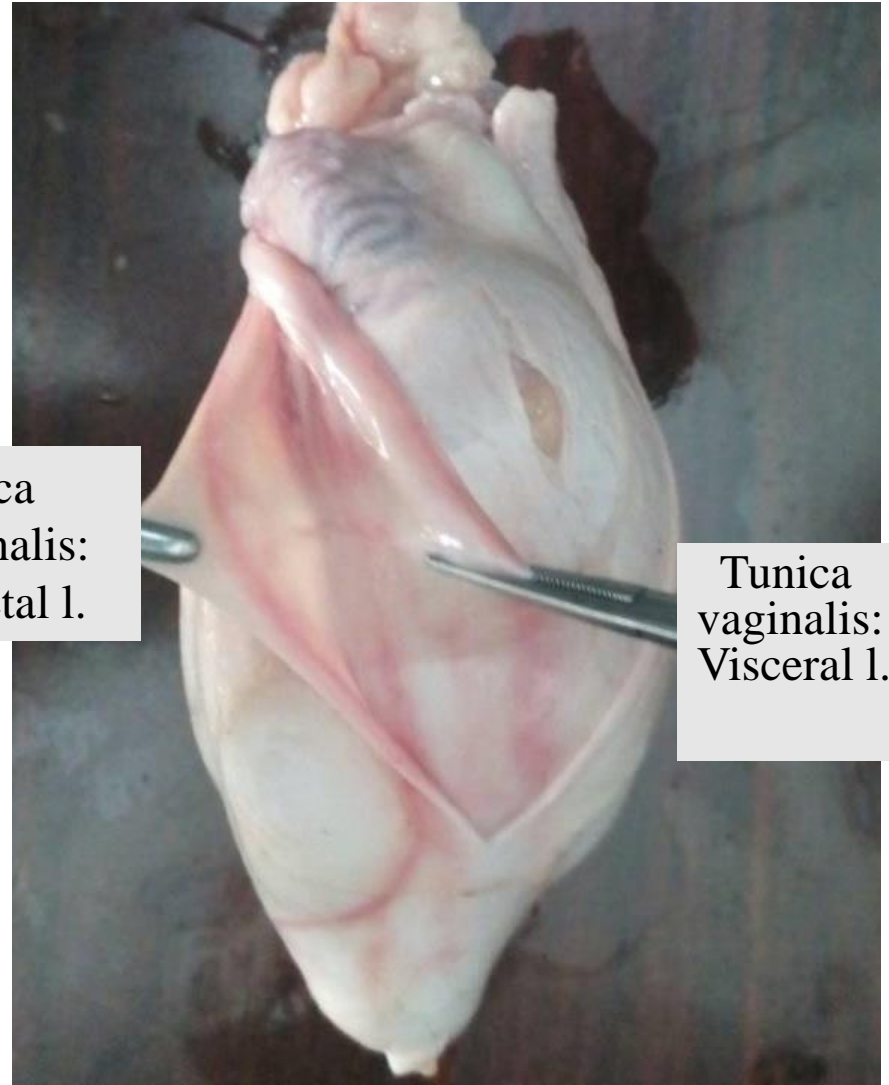
❖ Visceral l.

❖ Parietal l.

4) Tunica albuginea



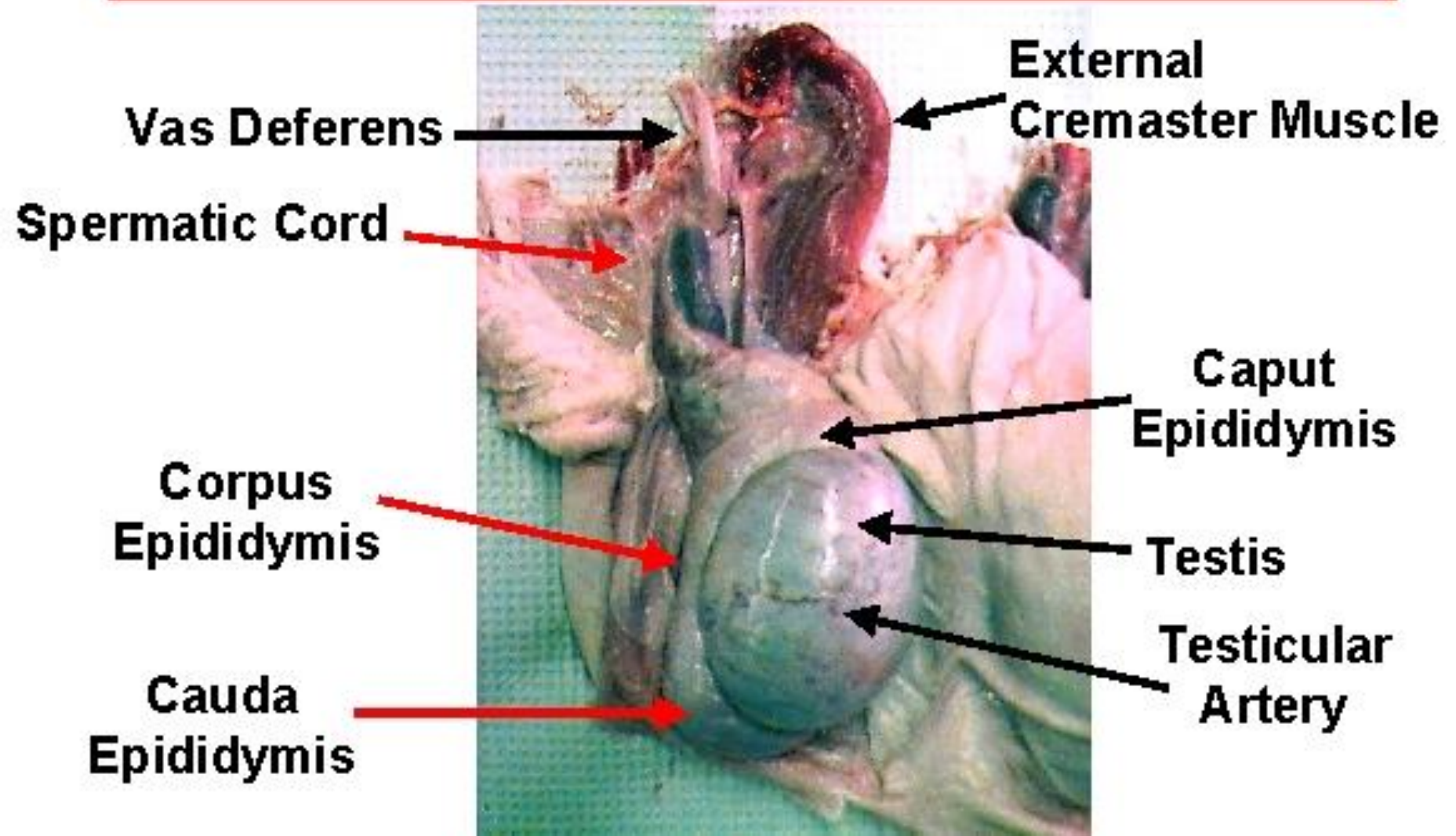
Tunica albuginea



Tunica vaginalis:
Parietal l.

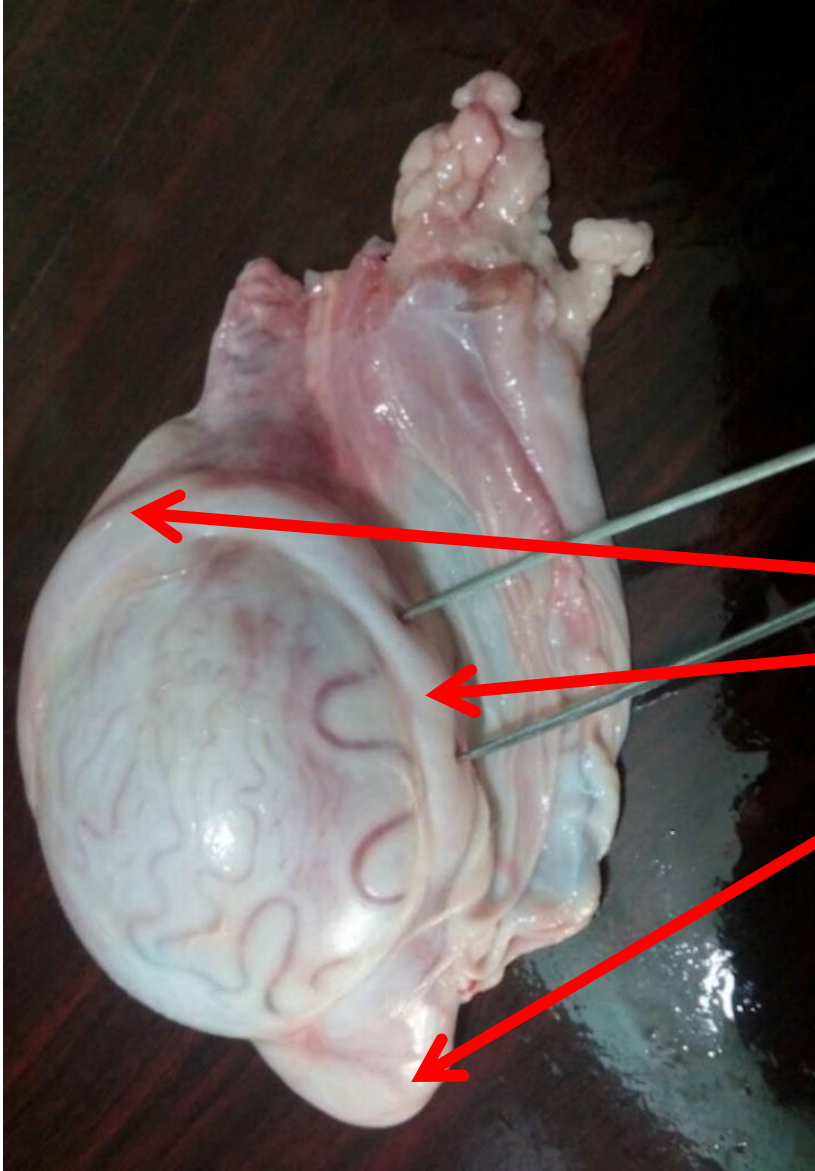
Tunica vaginalis:
Visceral l.

Testis



Epididymis

- ❖ Three parts
 - ❖ Head (caput)
 - ❖ Body (corpus)
 - ❖ Tail (cauda)



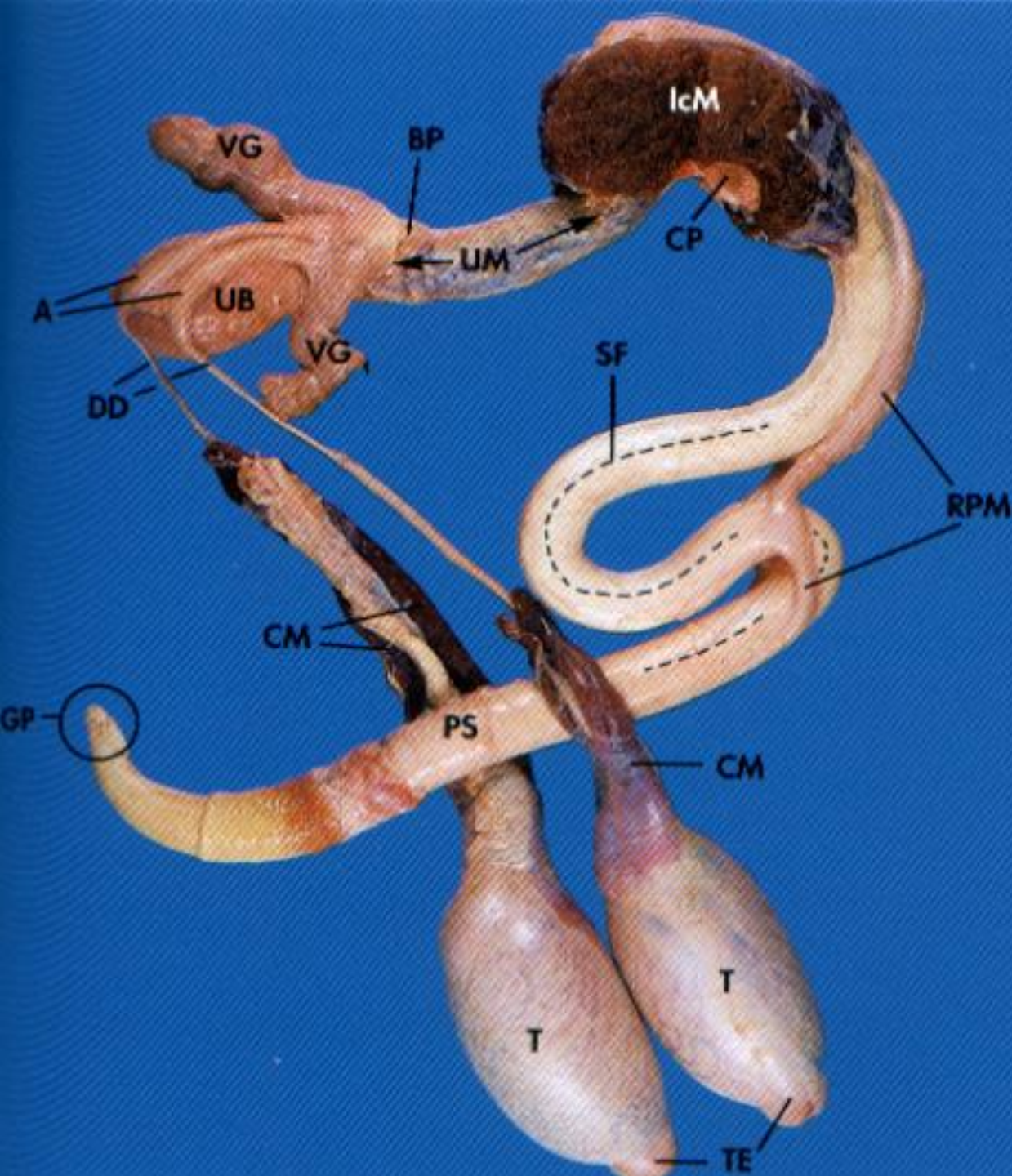
❖ Head

❖ Body

❖ Tail

Vas Deferens

- ❖ Ductus deferens or deferent duct
 - ❖ Paired ducts
- ❖ Ampulla
 - ❖ Wide end of vas deferens
- ❖ Function
 - ❖ Sperm transport from epididymis to pelvic urethra



A=Ampulla ;

BP=body of prostate;

CP=crus penis;

DD=ductus deferens;

GP=glans penis;

IcM= ischiocavernosus muscle;

RPM=retractor penis muscle;

SF=sigmoid flexure;

CM=Cremaster muscle

TE=tail of epididymis ;

T=testis;

UB=urinary bladder;

VG=vesicular gland.

Spermatic Cord

- spermatic cord extends from the inguinal ring to its attachment on the dorsal pole of the testis. It suspends the testis in the scrotum.
- The function of the spermatic cord provides the pathway to and from the body for testicular vasculature, Lymphatic and nerves.

Accessory Sex Glands

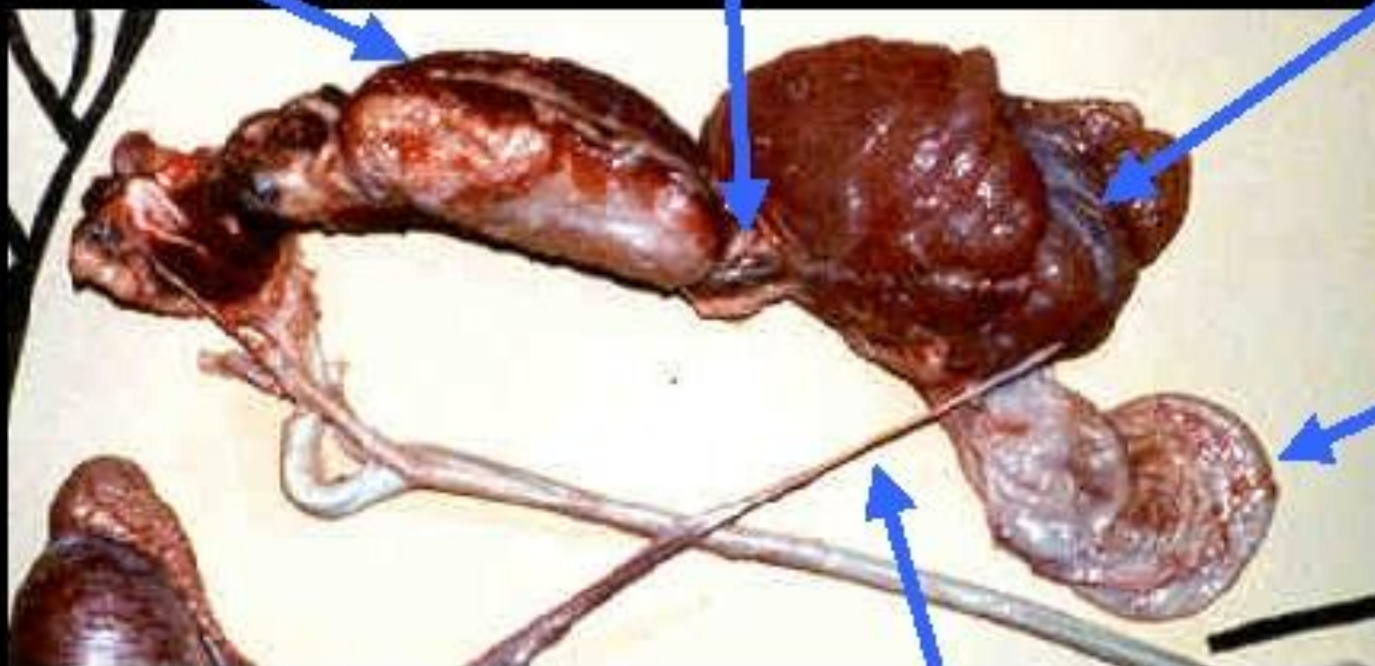
- ❖ Vesicular glands (*seminal vesicles*)
- ❖ Prostate gland
- ❖ Bulbourethral glands (*Cowper's gland*)
- ❖ Ampulla of ductus deference

Accessory Glands

Cowpers Gland

Prostate Gland

Seminal Vesicles



Bladder

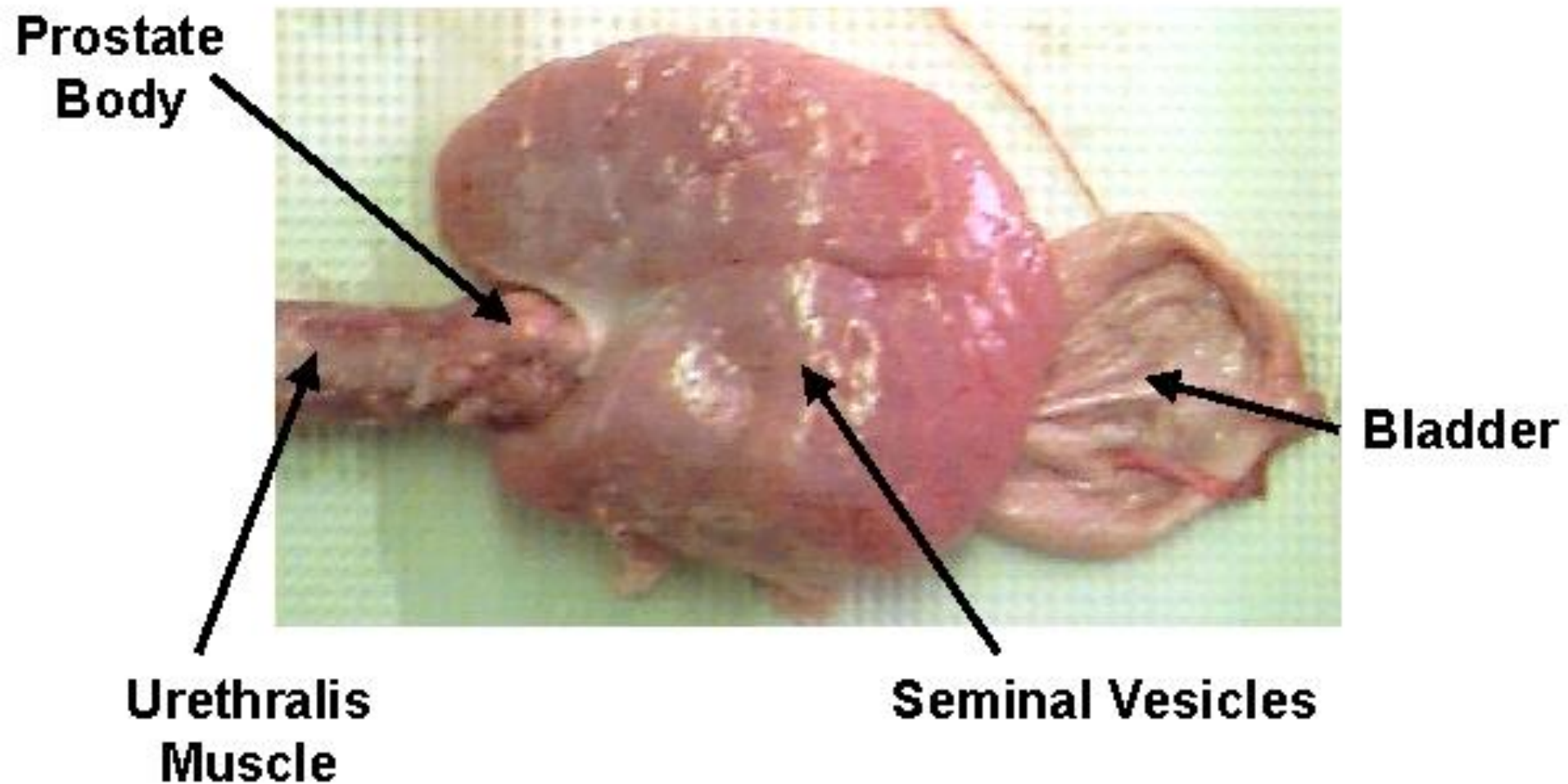
Vas Deferens

Vesicular Glands(seminal vesicles)

- ❖ Paired glands
- ❖ Located at junction of urethra & vas deferens
- ❖ Rough structure
- ❖ Contribute large amount of fluid
 - ❖ Fructose & sorbitol: energy sources
 - ❖ Phosphate & bicarbonate: buffers

- Absent in camel, dog and cat.
- Lobulated type in Ruminants
- In stallion, large pyriform glandular sac
- Pyramidal in boar

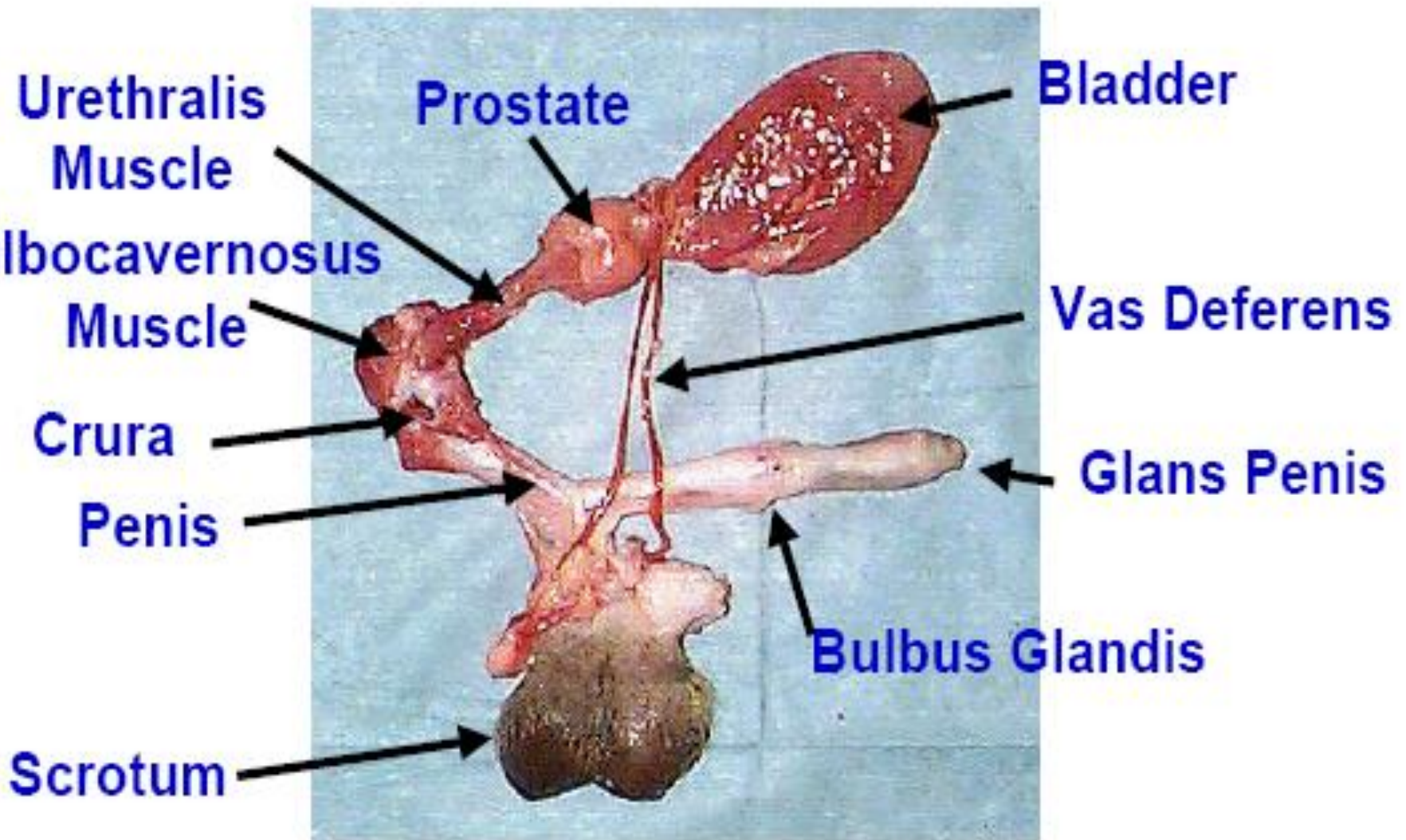
Seminal Vesicles



Prostate Gland

- ❖ Located caudal to seminal vesicles and close proximity to pelvic urethra
- ❖ Bilobed in bull
- ❖ Diffuse in ram
- ❖ Surrounds urethra in dogs & humans
- ❖ Function = cleanse, lubricate and secretes just during ejaculation
- ❖ Only accessory gland in dog

Reproductive Tract Anatomy of the Male



Bulbourethral Glands

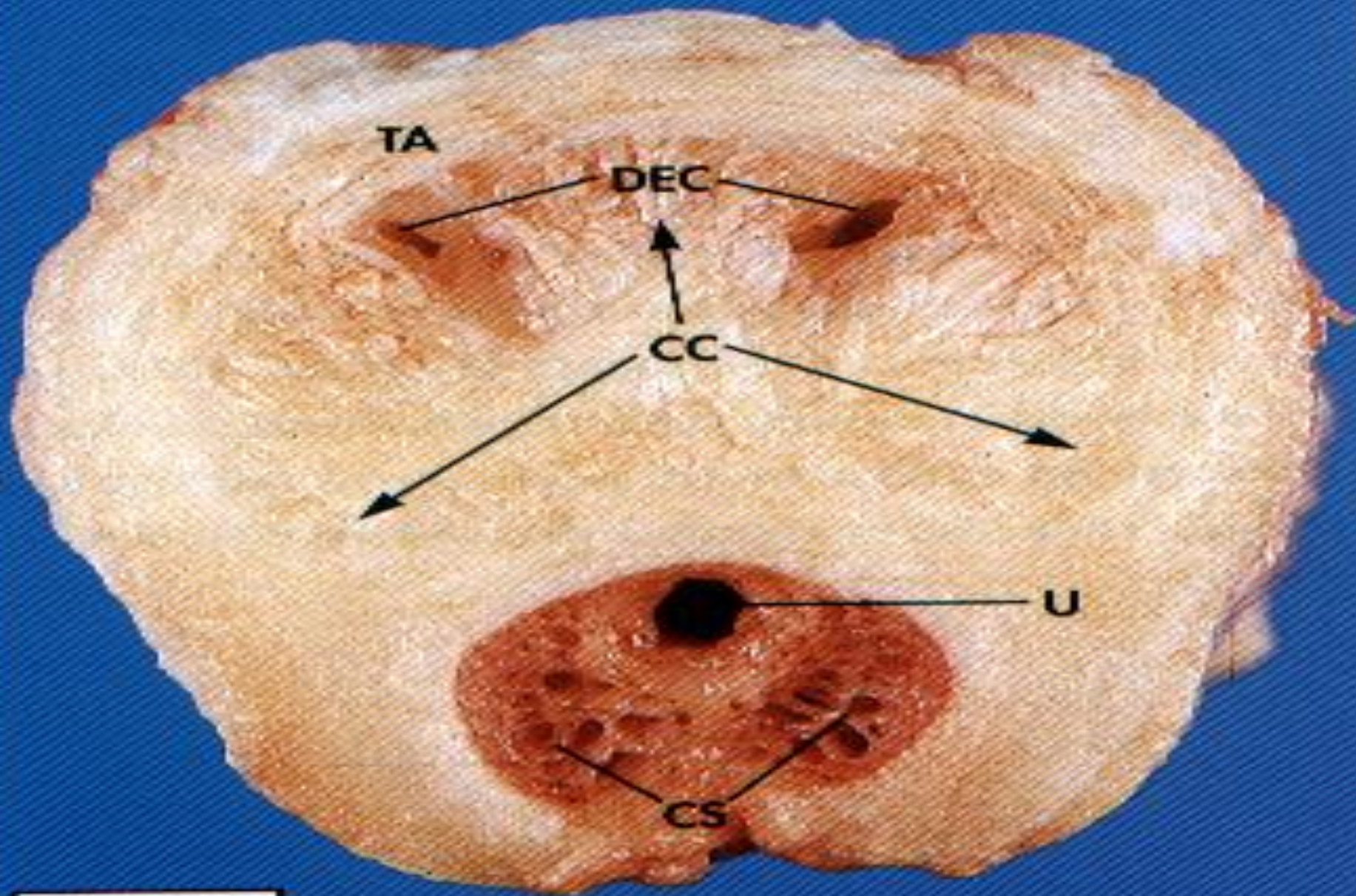
- ❖ Paired glands
- ❖ Hidden by the bulbospongiosus muscle
- ❖ Function:
 - ❖ **Cleanse urethra prior to ejaculation**
 - ❖ Produce gel fraction
 - ❖ Adds considerable volume

Comparative of accessory sex gland

Animals	Seminal vesicle	prostate	Bulbourethral	Ampulla
Horse	+	+	+	+
Ox	+	+	+	+
Sheep&goat	+	+	+	+
Camel	-	+	+	+
Dog	-	+	-	+
Cat	-	+	+	+
Pig	+	+	+	-

Penis

- ❖ Cavernous bodies:
 - Corpus spongiosum
 - Corpus cavernosum



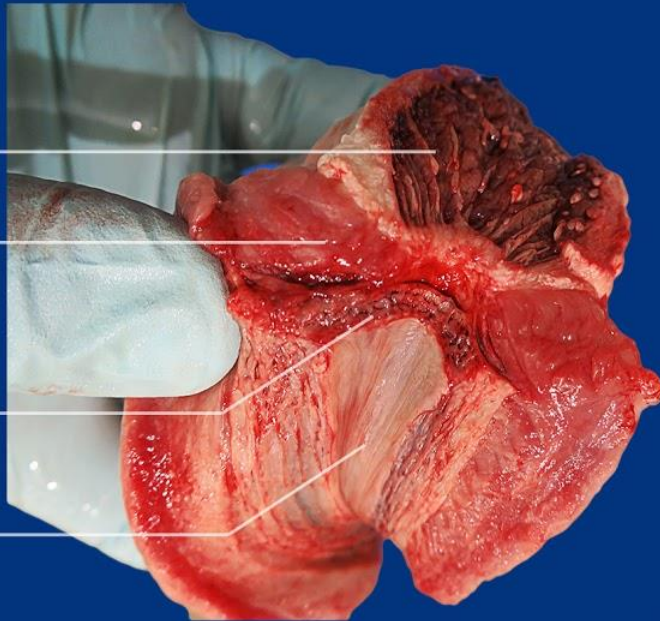
BULL

Corpus cavernosum

Bulbospongiosis m.

Corpus spongiosum

Urethra



5 cm

Tunica albuginea

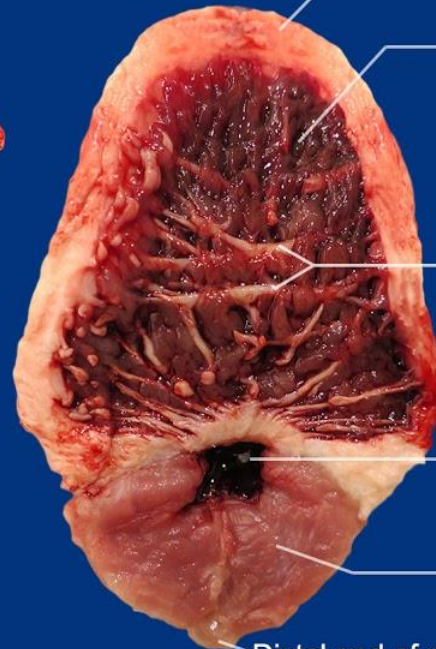
Cavernous sinus of corpus cavernosum

Trabeculae

Urethra (corpus spongiosum obscured by blood)

Bulbospongiosis m.

Distal end of retractor penis mm



Stallion

Penis

- ❖ Sigmoid flexure
 - ❖ Ram, buck, bull
 - ❖ Allows penis to be retracted inside body until erection occurs

Penis

Two Types

1. **Fibroelastic**

- ❖ Bull, buck, ram, dog

2. **Vasomuscular**

- ❖ Stallion, human