

وسهلا

أهلا



الأستاذ الدكتور يوسف حسين

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت
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Internal iliac Artery

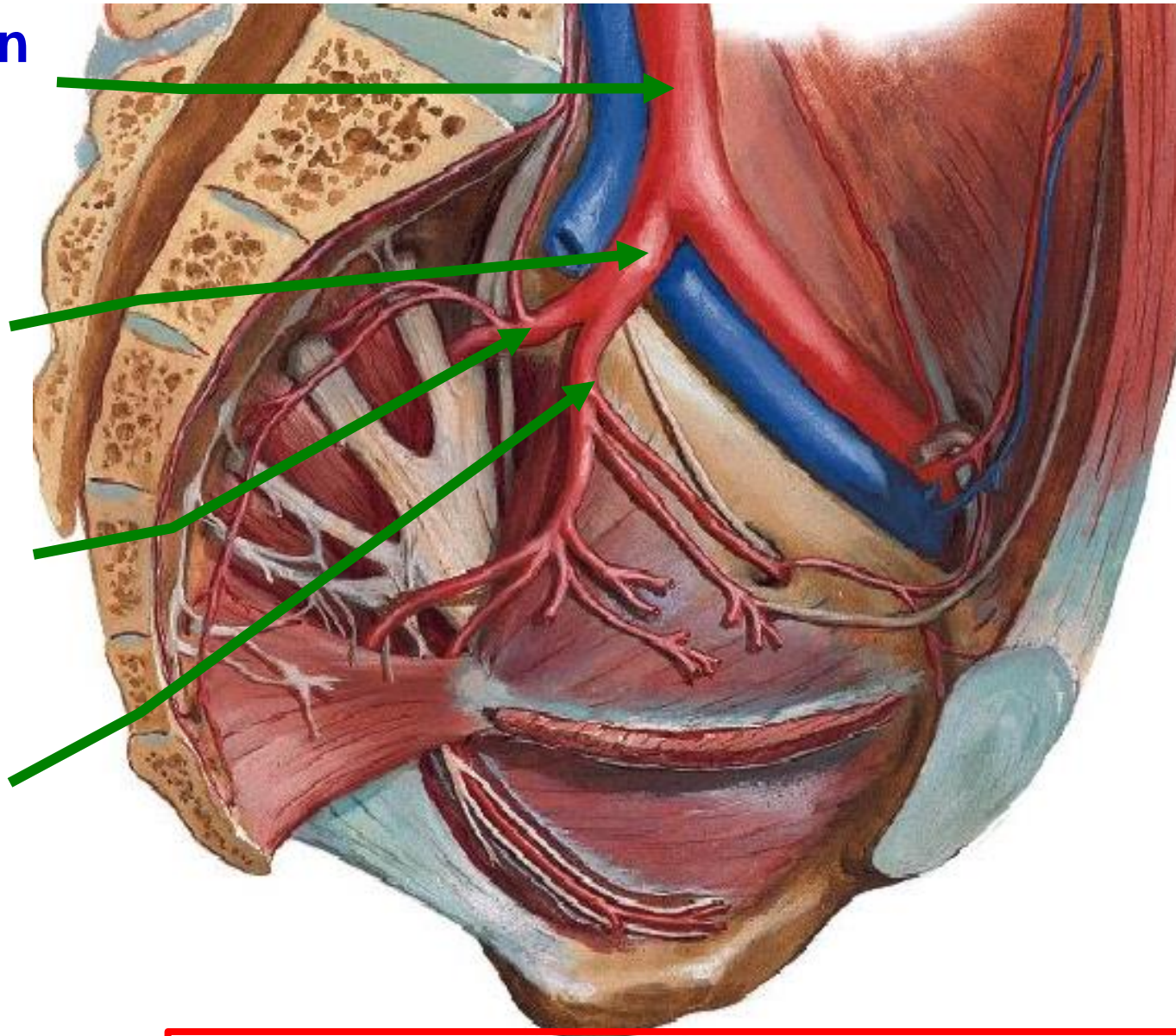
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Left common
iliac artery

Internal
iliac artery

Posterior
division

Anterior
division



- **Internal Iliac Artery**
- ** **Begin:** one of two terminal branches of common iliac artery.
- ** **End:** At the level of lumbosacral angle.
 - It divides into **anterior** and **posterior** divisions.

Relations

Medially

Sigmoid
colon

Anteriorly

Ovary

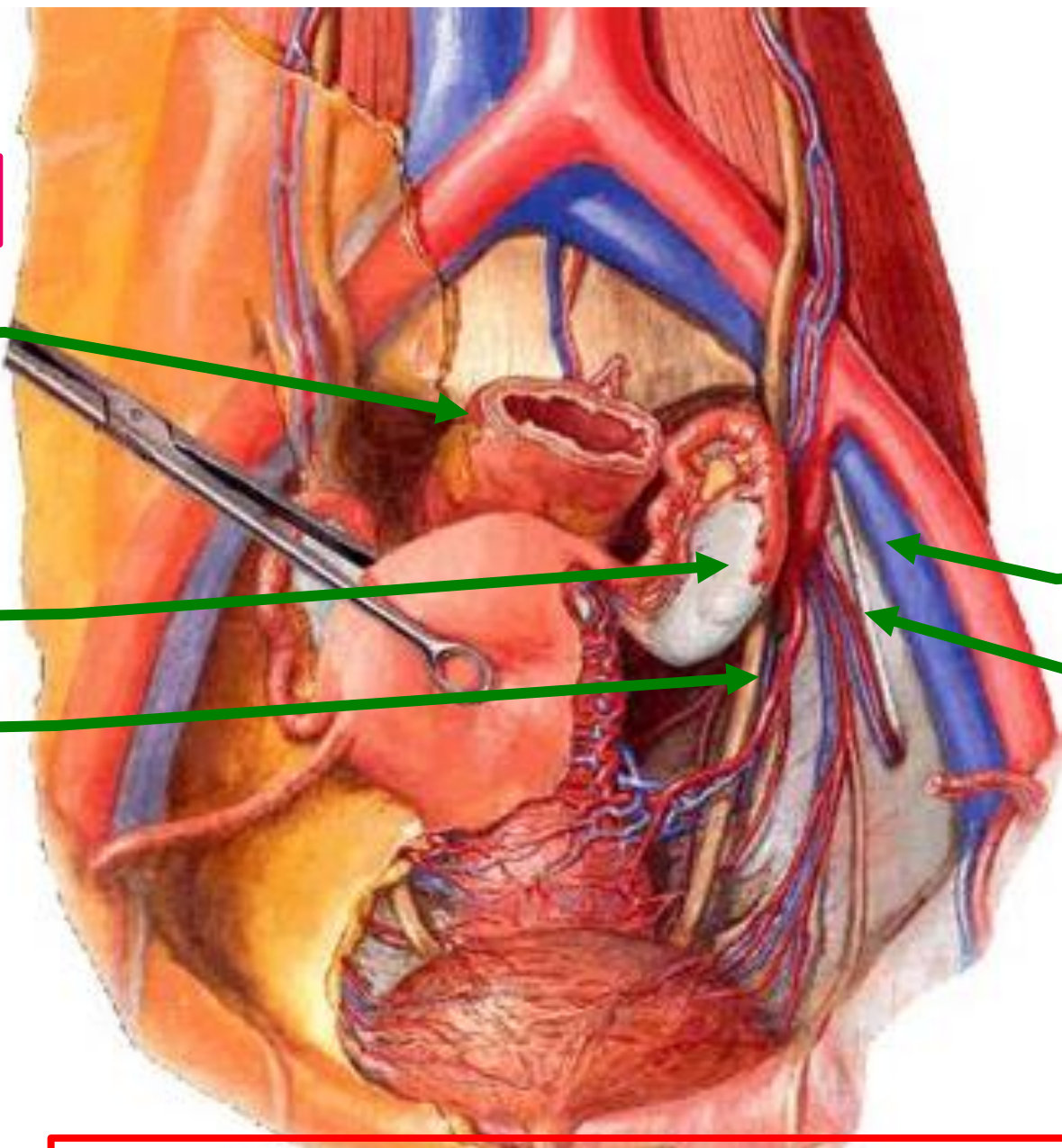
Ureter

Laterally

External iliac vein

Obturator Nerve

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Branches of posterior division

Iliolumbar artery, dividing into;

a- Iliac branch to iliacus muscle.

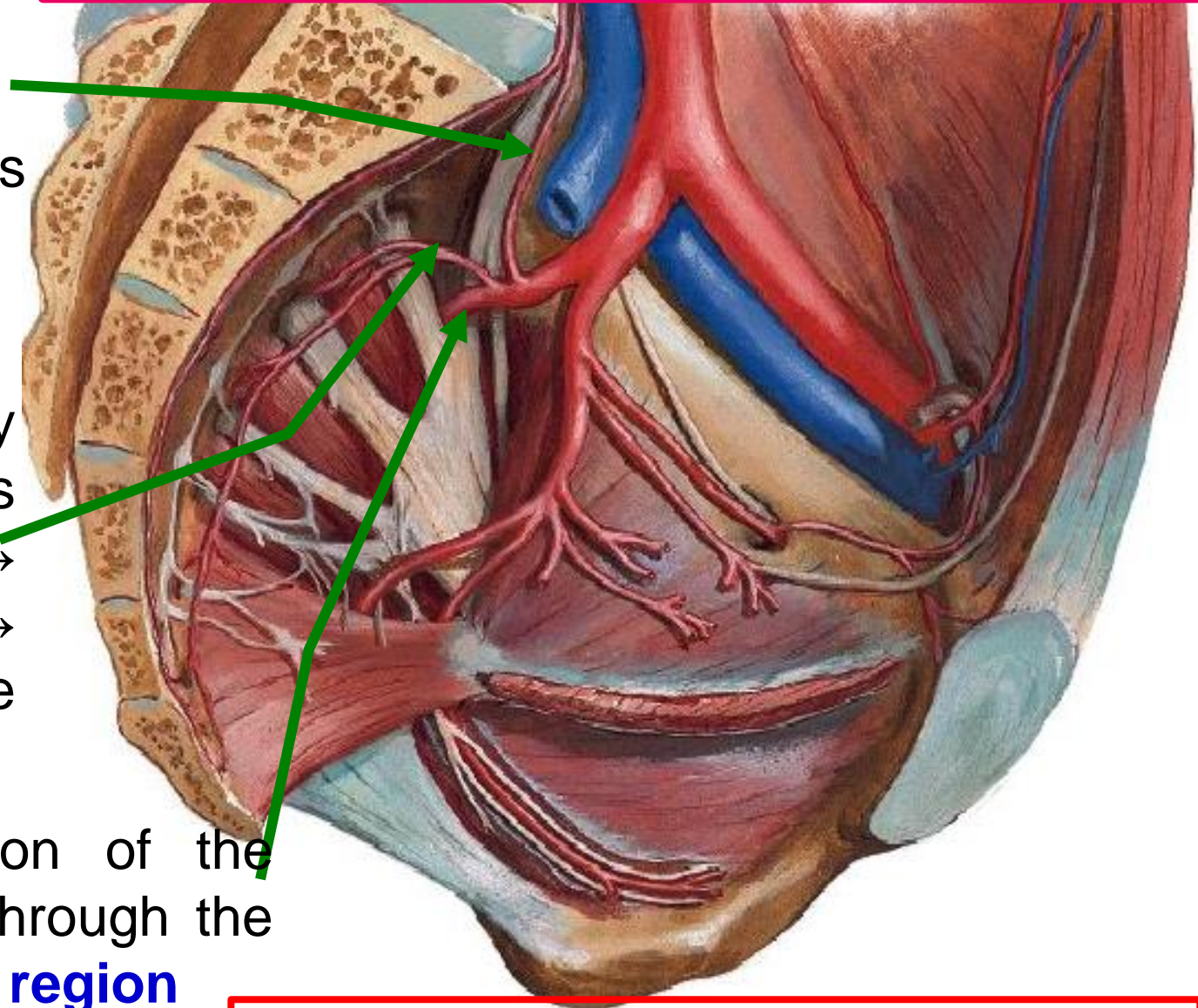
b- Lumbar branch

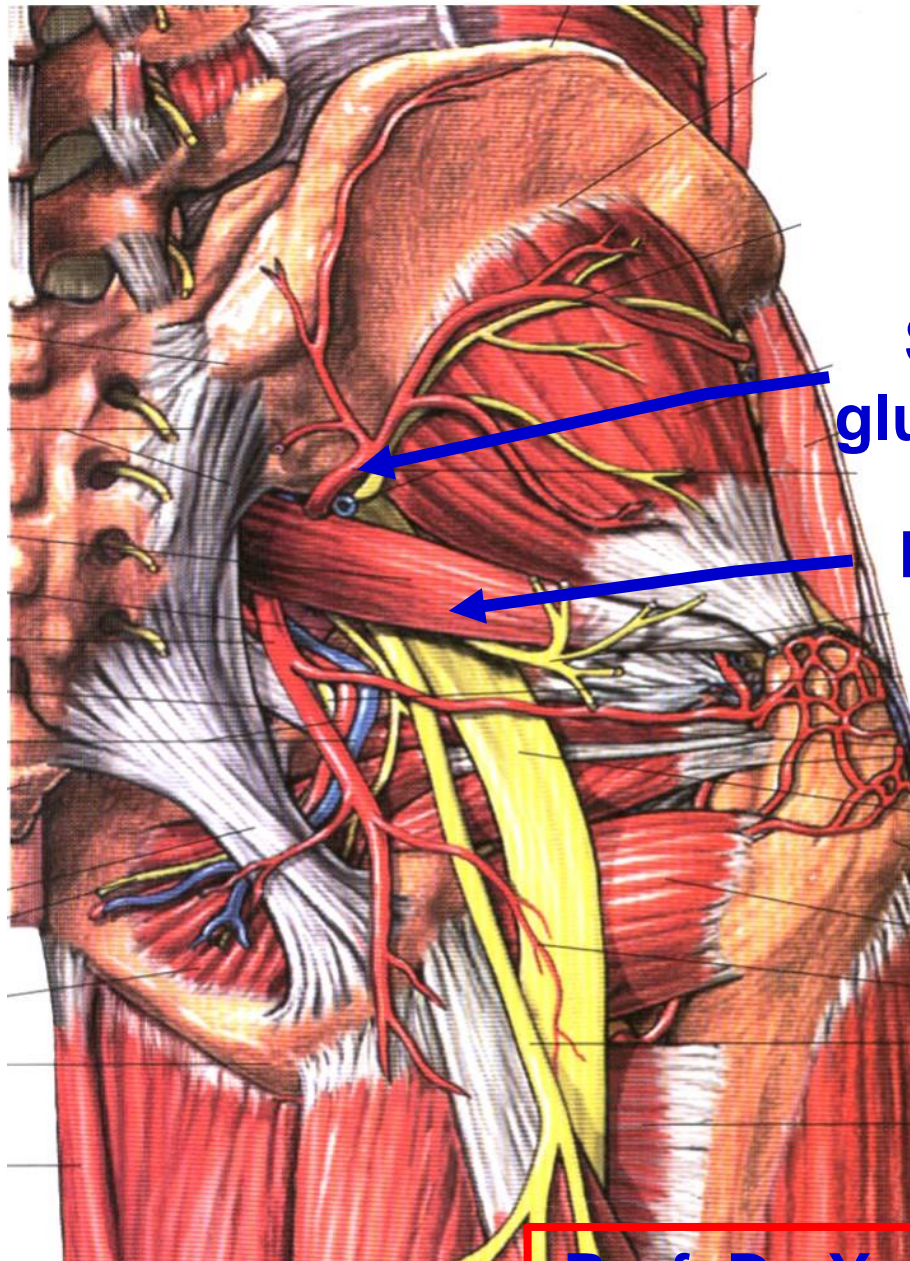
1) To psoas major and quadratus lumborum.

2) Spinal branch to spinal cord.

Two Lateral sacral arteries They enter anterior sacral foramina → cross sacral canal (supplying its contents) → exit from posterior sacral foramina → to supply muscles and skin on the back.

Superior gluteal artery, continuation of the posterior division, leaves the pelvis through the greater sciatic foramen **To the gluteal region**





**Superior
gluteal artery**

**Piriformis
muscle**

▪ Superior Gluteal Artery

** **Origin:** continuation of the posterior division of internal iliac artery.

** **Course:**

- It leaves the pelvis through the greater sciatic foramen above the piriformis.

- Immediately, it divides into superficial and deep divisions.

** **Branches to** gluteus Medius, minimus and Tensor fascia latae muscles.

Visceral Branches of anterior division

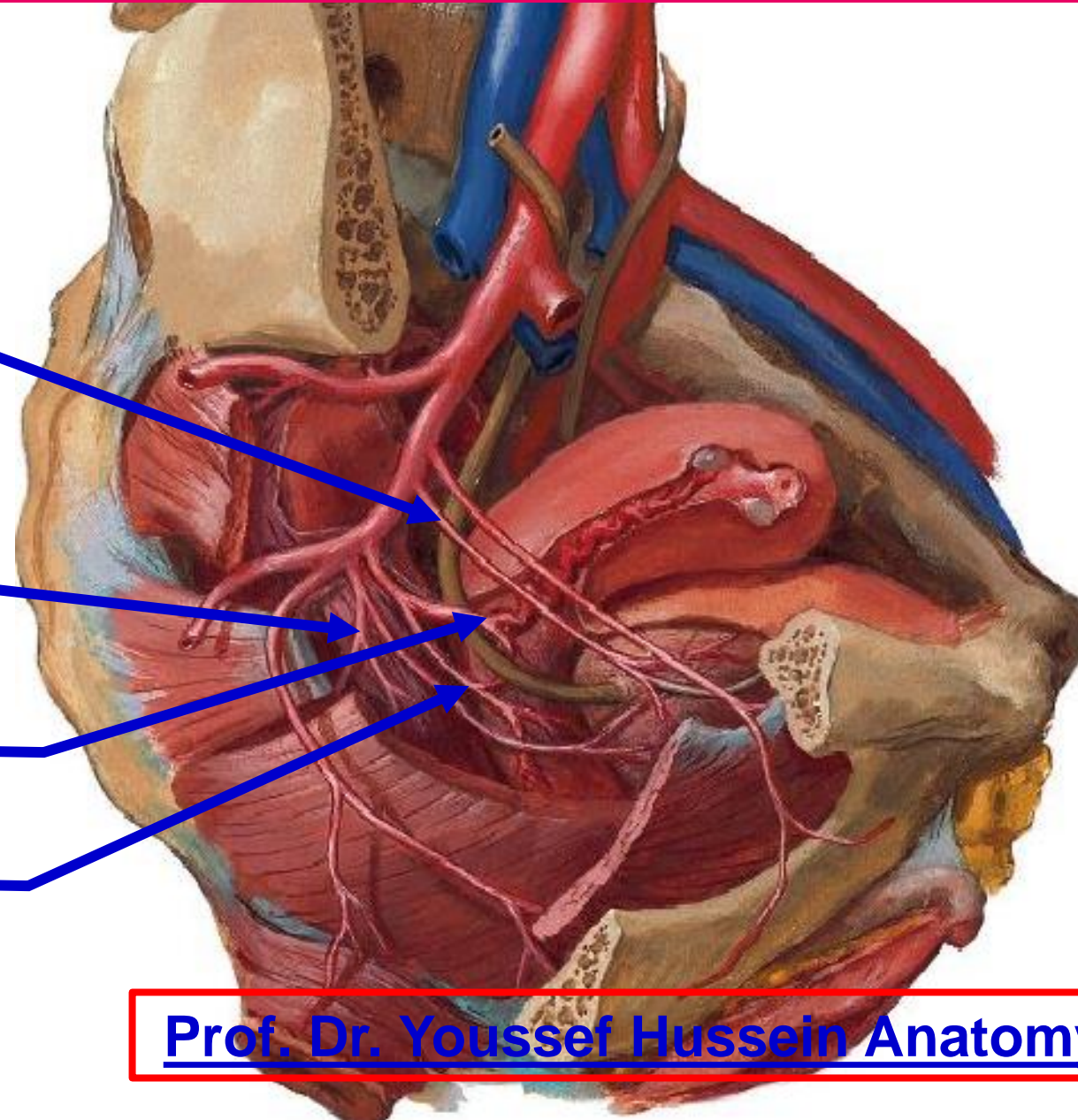
Superior vesical artery
Male & female

Middle rectal artery
Male & female

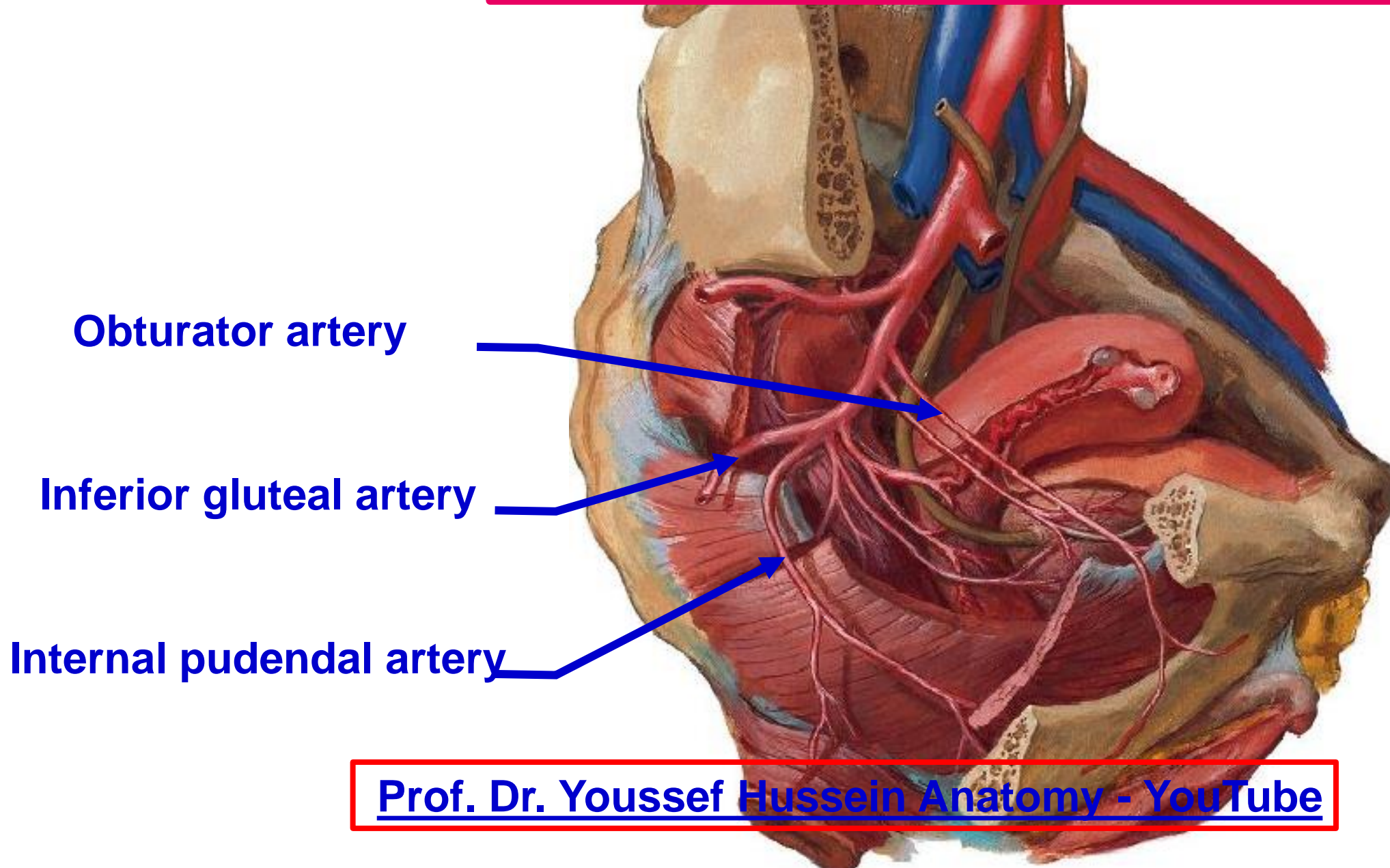
Uterine artery female

Vaginal artery female

Inferior vesical artery
Male



Parietal branches of anterior division



Visceral branches of anterior division

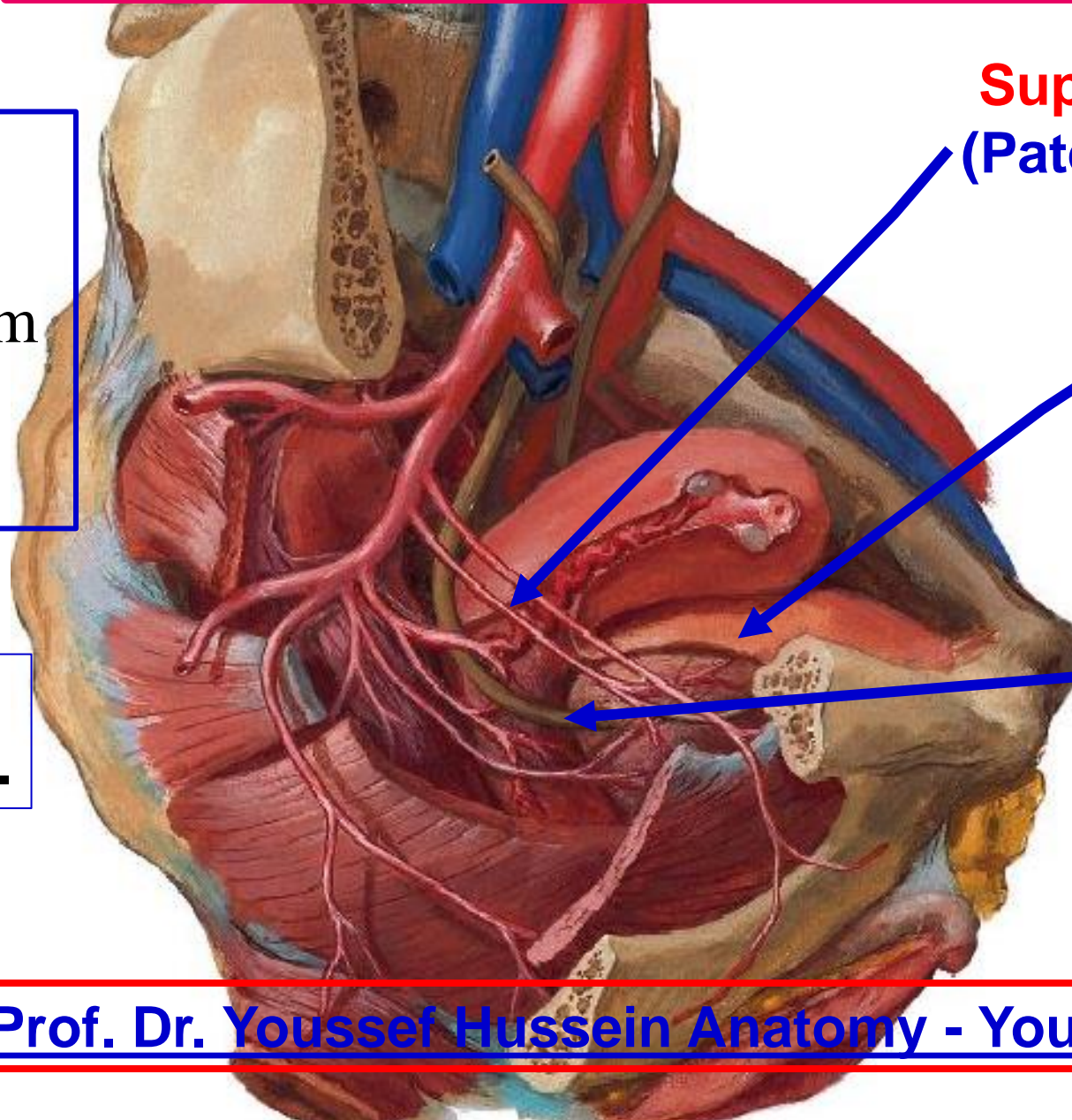
Distal part of umbilical artery obliterated and from **medial umbilical ligament**

Artery of vas deferens (*male only*).

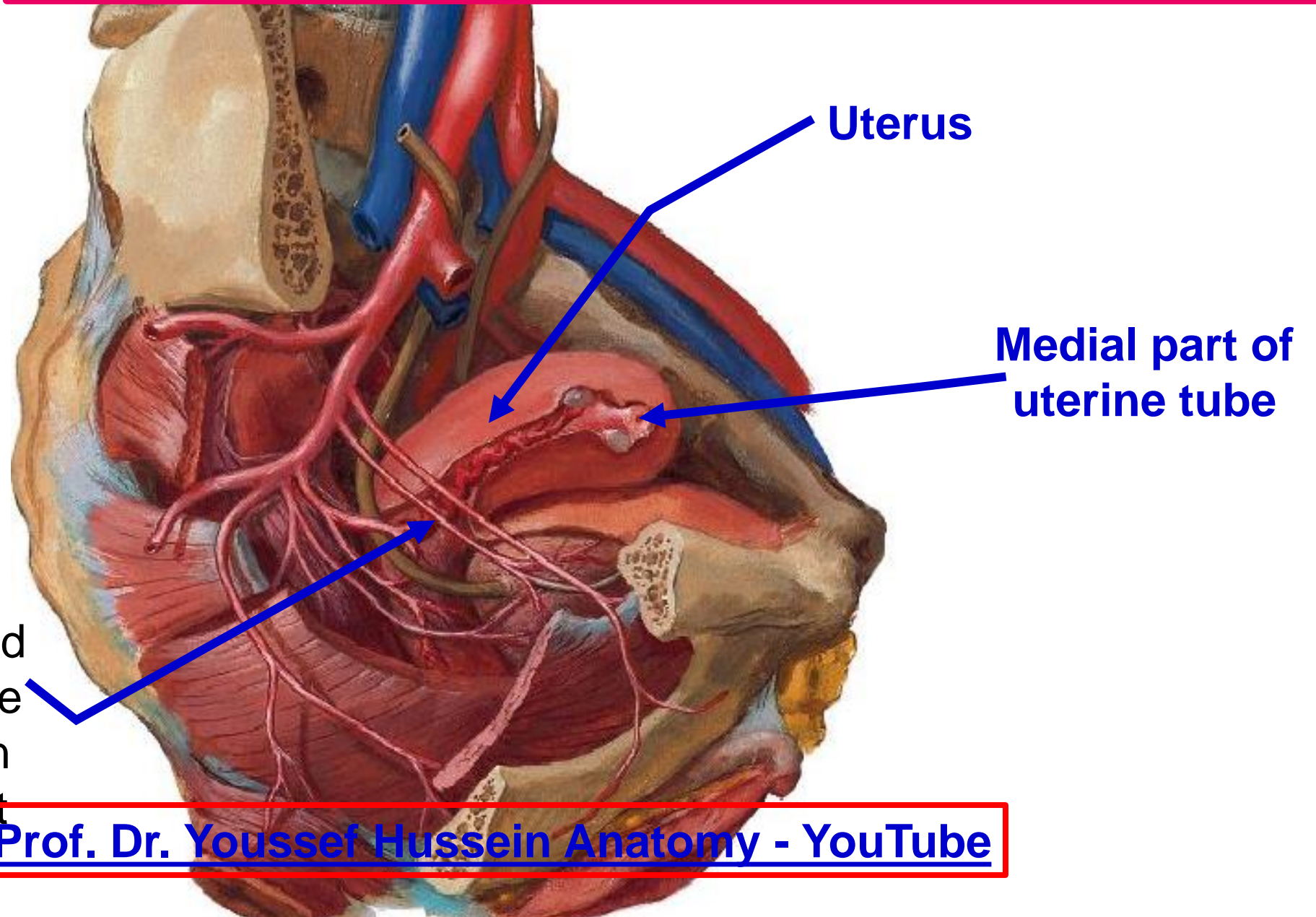
Superior vesical artery
(Patent umbilical artery)

Upper part of urinary bladder

Lower part of Ureter



Visceral branches of anterior division



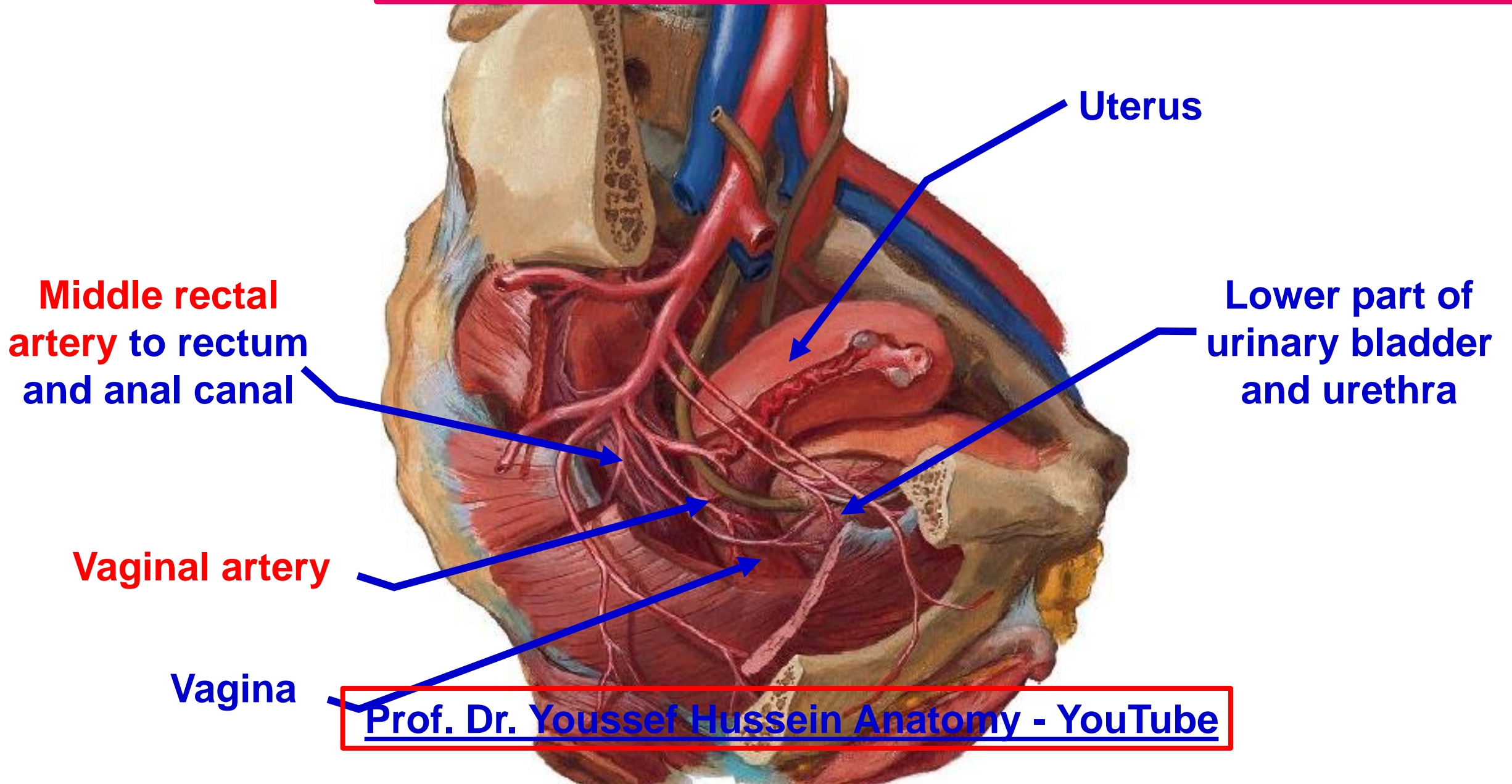
Uterus

Medial part of
uterine tube

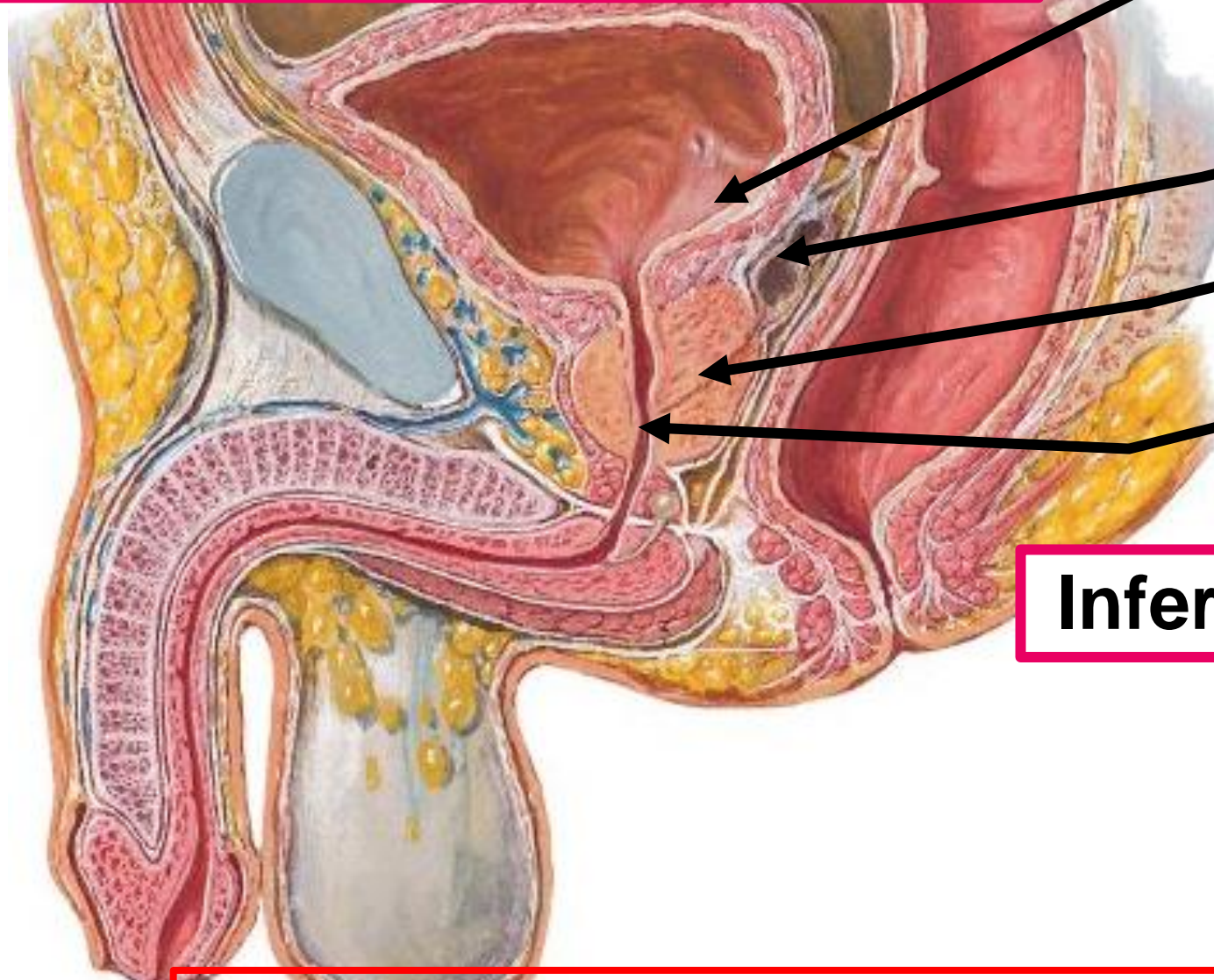
Uterine artery
tortuous artery and
ascends on the side
of the uterus within
the broad ligament

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Visceral branches of anterior division



Visceral branches of anterior division



Lower part of Urinary bladder

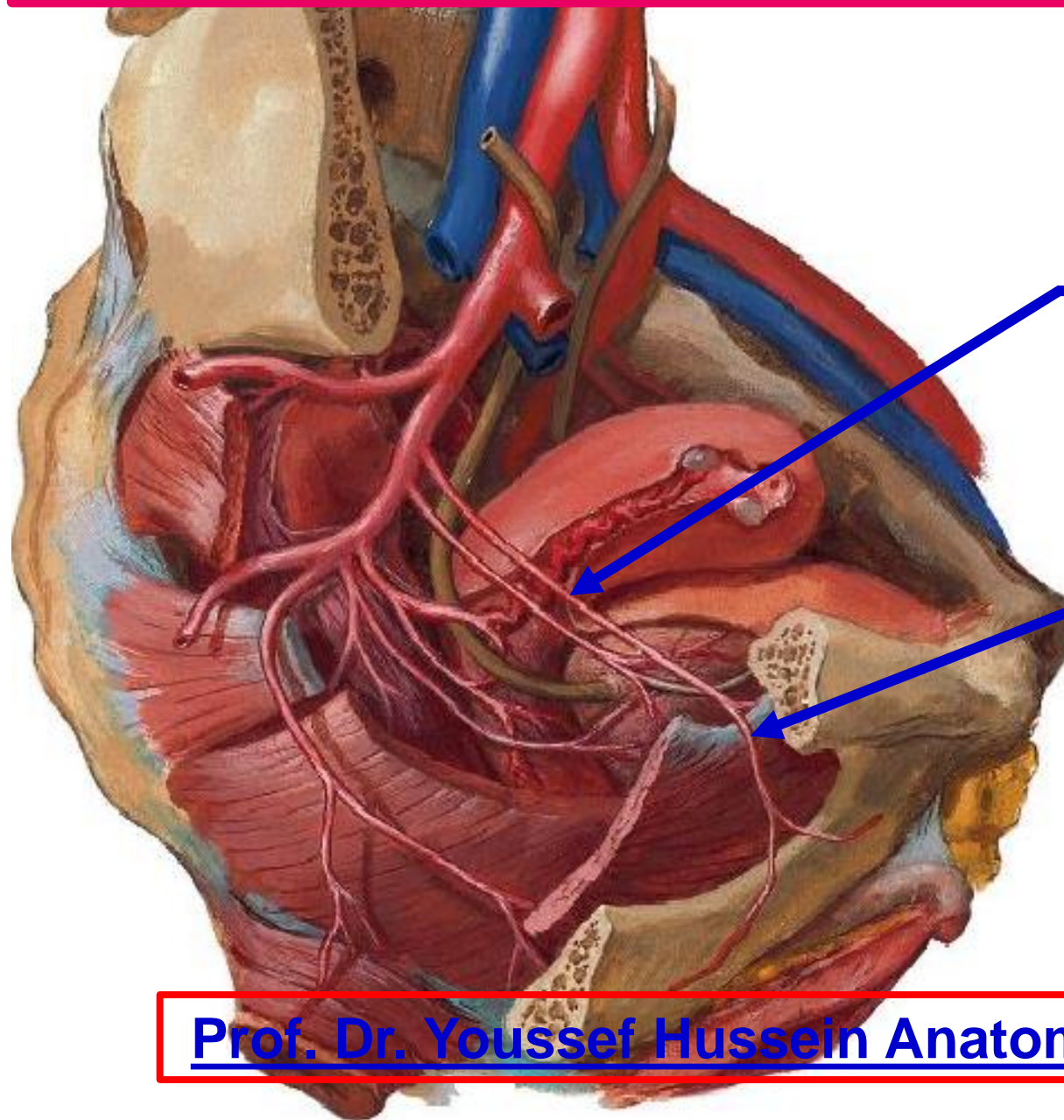
Seminal vesicle

Prostate

Urethra

Inferior vesical artery

Parietal branches of anterior division



Obturator artery

It passes through
obturator canal to the
medial side of thigh

Branches of the anterior division:

1- Superior vesical artery (umbilical artery):

- It gives branches to: 1) Upper part of the urinary bladder. 2) Ureter. 3) Artery of the vas deferens.

N.B: Its distal part obliterated and from the **medial umbilical ligament**.

2- Inferior vesical artery (male): to 1) lower part of the urinary bladder. 2) Urethra.
3) Seminal vesicle. 4). Prostate gland

3- Vaginal artery (female): to 1) lower part of the urinary bladder.
2) Urethra. 3) Vagina.

4- Uterine artery (female): to 1) Uterus. 2) Medial part of the uterine tube.

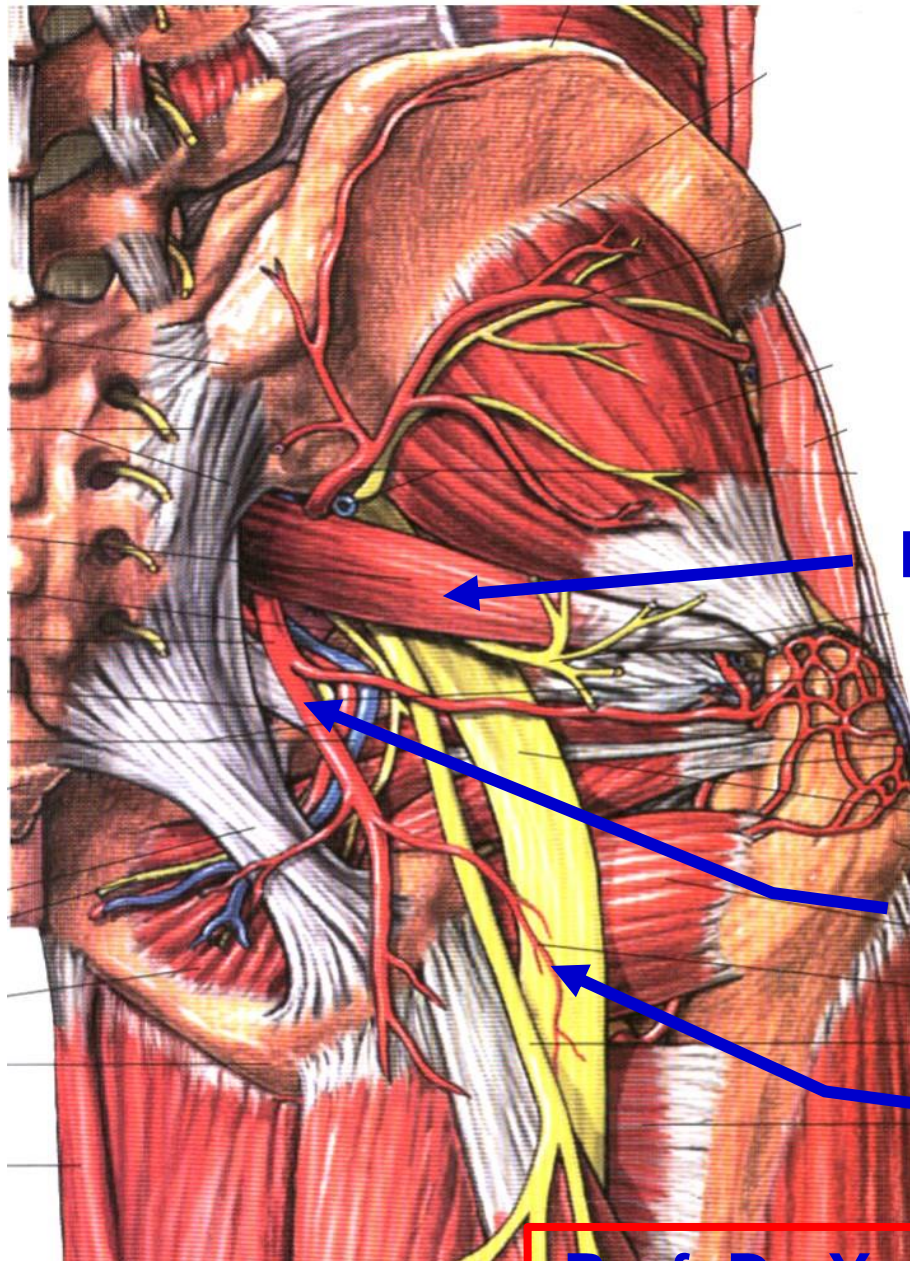
5- Middle rectal artery: to the rectum and anal canal.

6- Obturator artery: passes through the obturator canal to medial side of the thigh.

7- Terminal branches (2 in);

a- Inferior gluteal artery.

b- Internal pudendal artery.



**Piriformis
muscle**

**Inferior gluteal
artery**

**Companion
artery**

- **Inferior Gluteal Artery**

- ** **Origin:** one of two terminal branches of anterior division of internal iliac artery.

- ** **Course:** It leaves the pelvis through greater sciatic foramen below piriformis.

- ** **Branches;**

- a- Muscular branch to gluteus maximus.

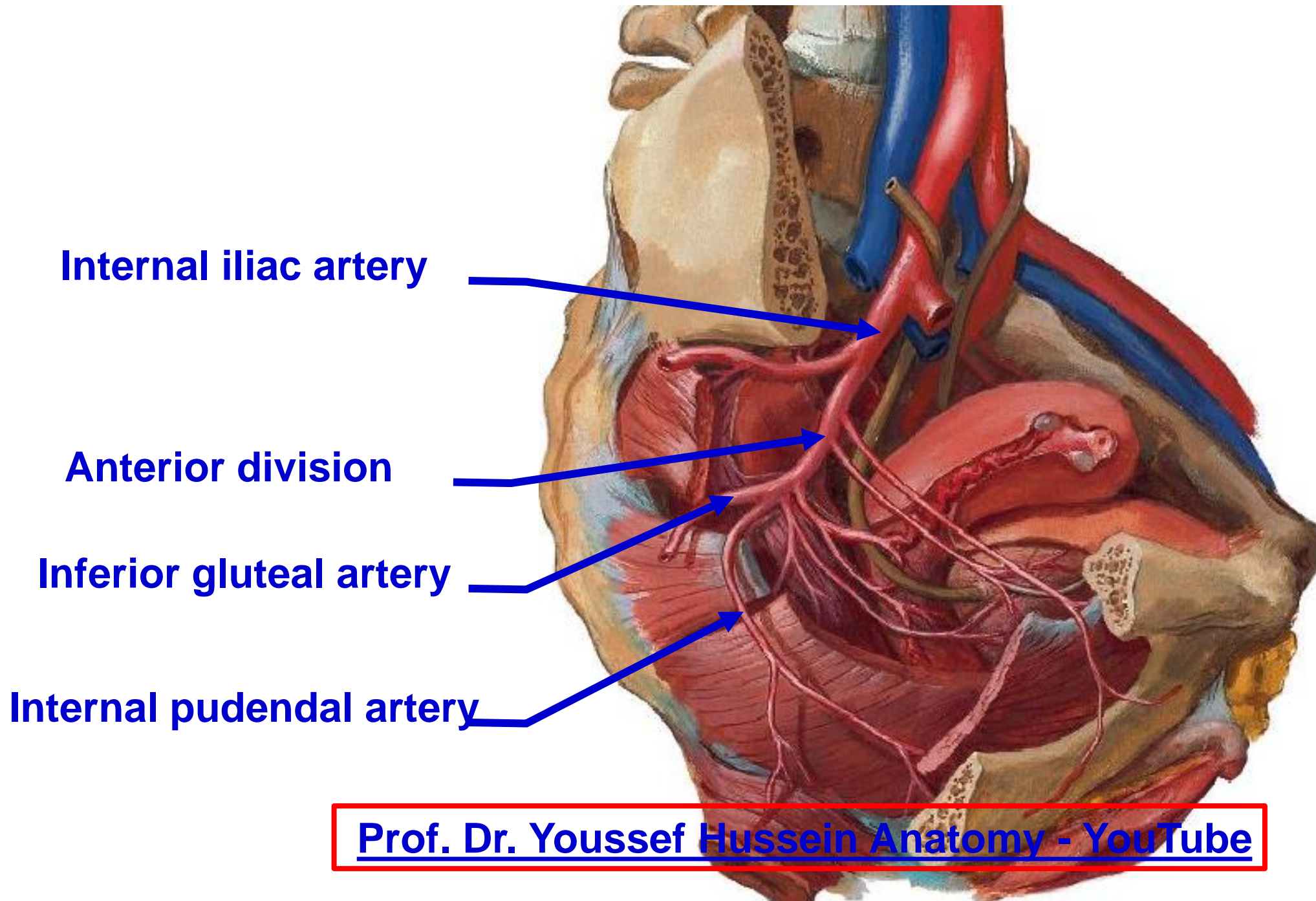
- b- **Companion artery** pierces the sciatic nerve.

- c- Branch to cruciate anastomosis.

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Internal Pudendal Artery

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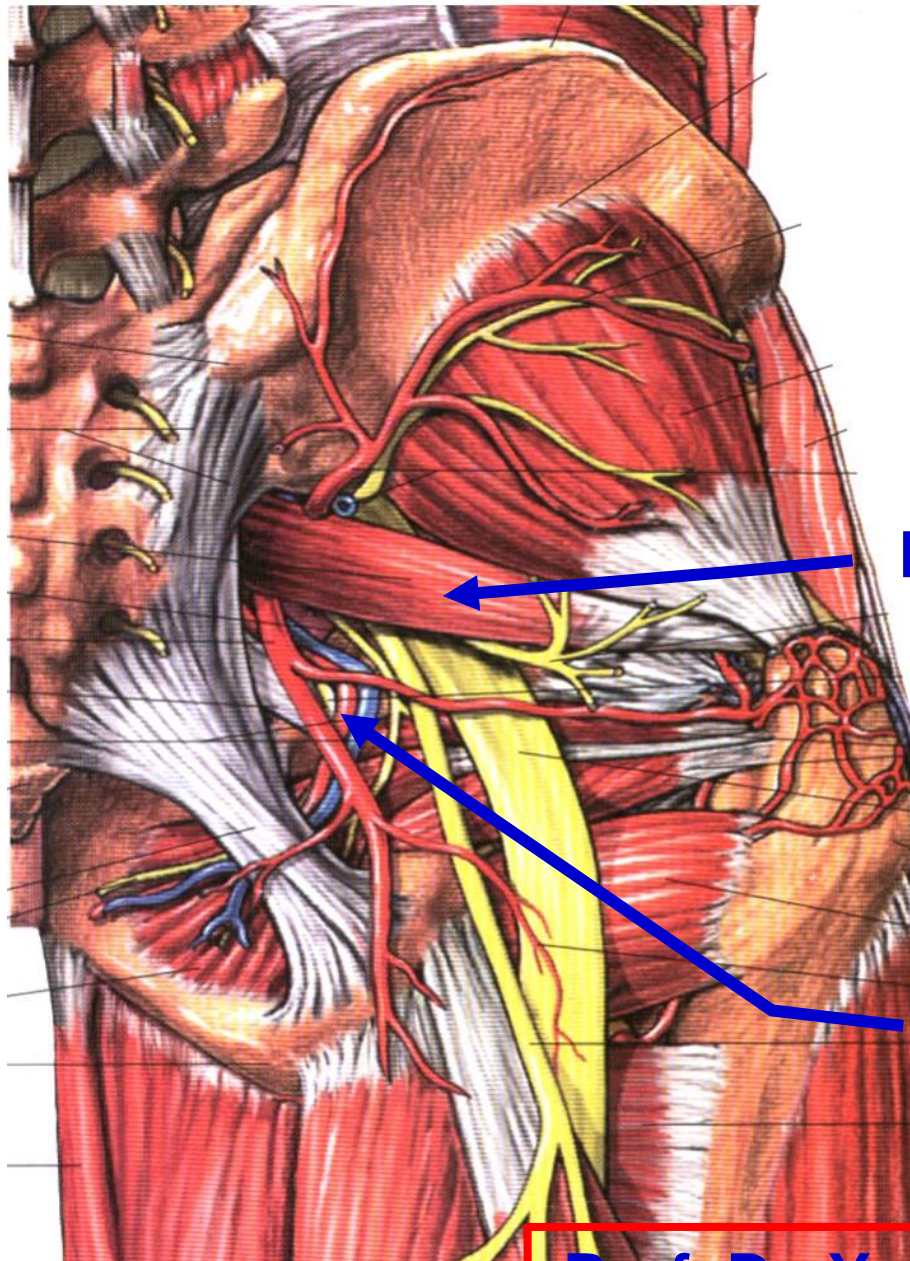


Internal iliac artery

Anterior division

Inferior gluteal artery

Internal pudendal artery



**Piriformis
muscle**

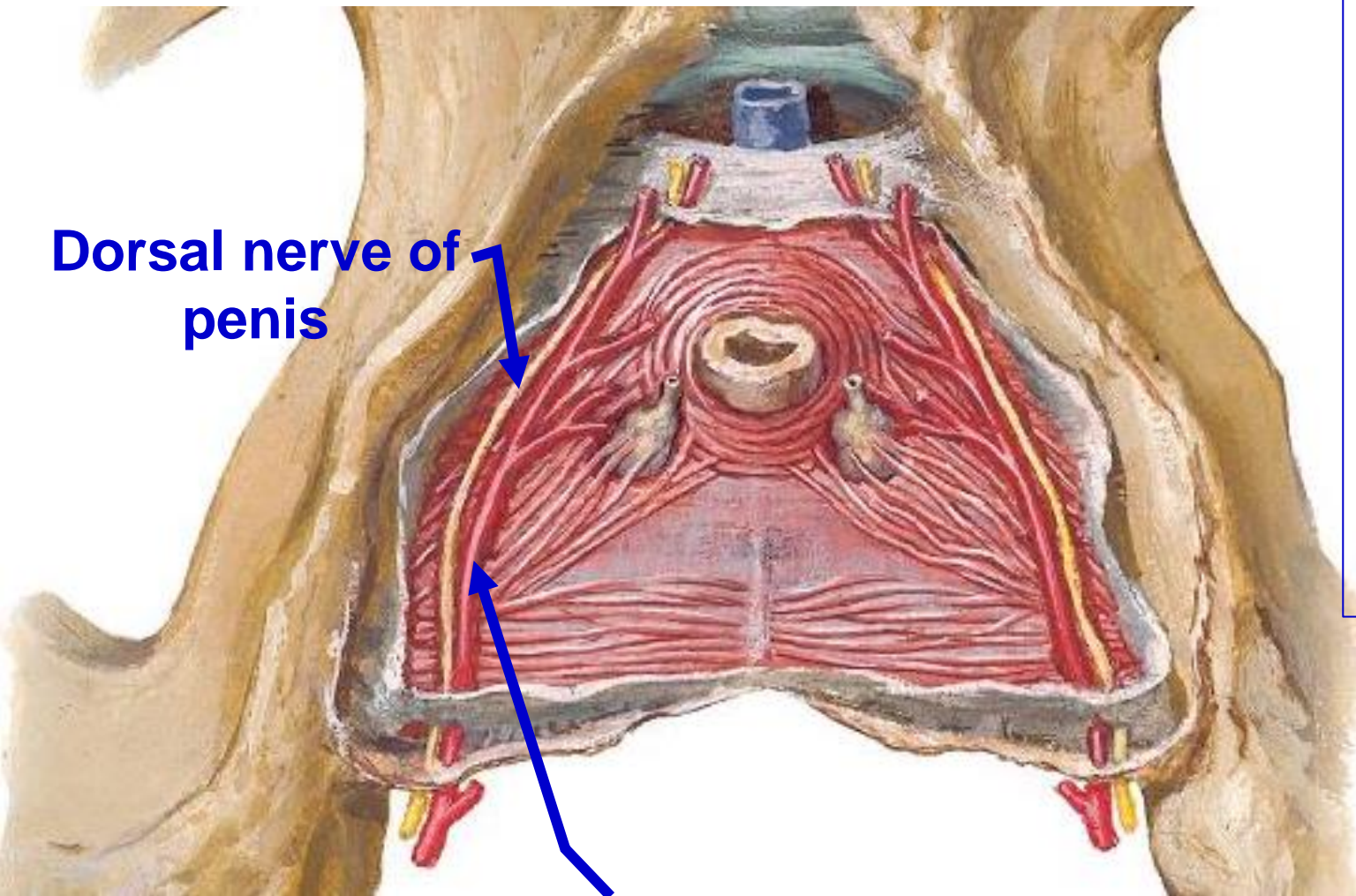
**Internal pudendal
artery**

- **Internal Pudendal Artery**

**** Origin**, One of two terminal branches of anterior division of internal iliac artery.

**** Course:-** It passes through greater sciatic foramen below piriformis muscle to the gluteal region

- It crosses the tip of ischial spine.
- Then, it passes through lesser sciatic foramen to enter pudendal canal between pudendal vein and pudendal nerve.



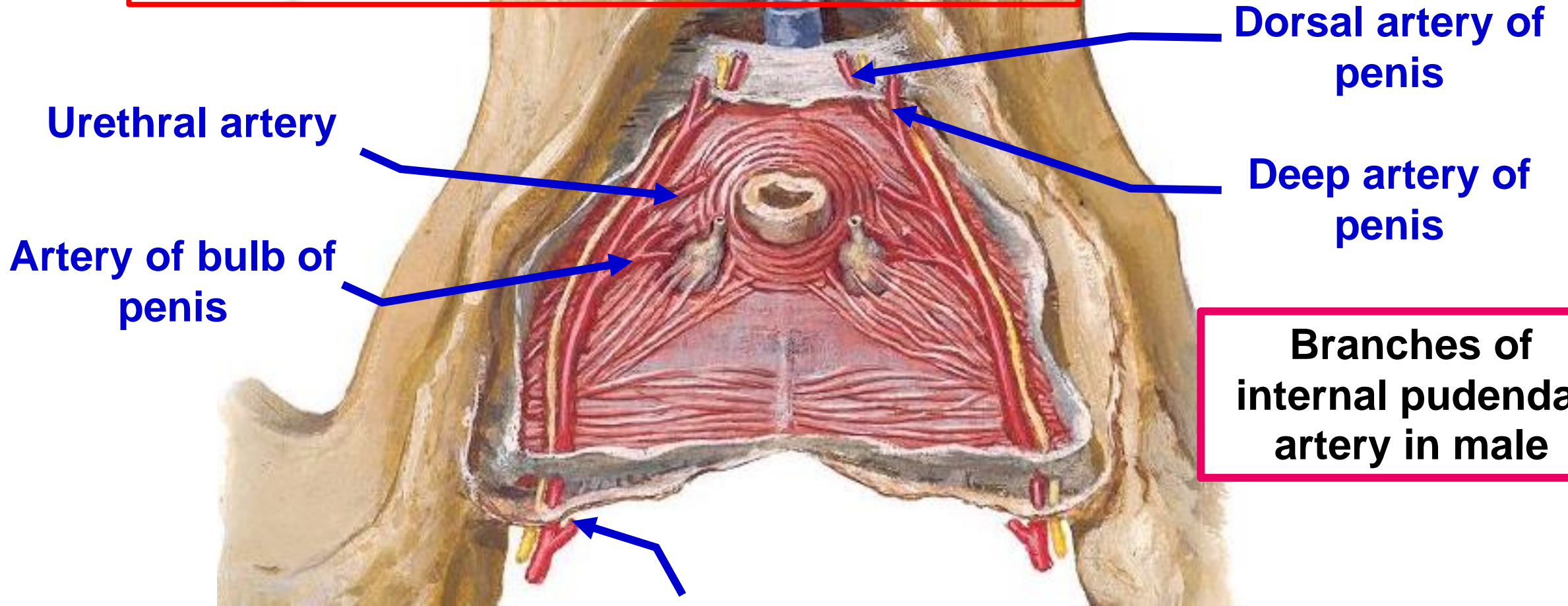
Dorsal nerve of
penis

Internal pudendal
artery

- **Internal Pudendal Artery**

- It runs to the deep perineal pouch with dorsal nerve of penis or clitoris.

** **Termination;** in deep perineal pouch, divided into **deep and dorsal artery of the penis or clitoris).**



Perineal artery to perineum, gives posterior **scrotal branch** to scrotum

Inferior rectal artery inside pudendal canal and crosses ischiorectal fossa to the rectum and anal canal.

**** Branches of internal pudendal artery in female:**

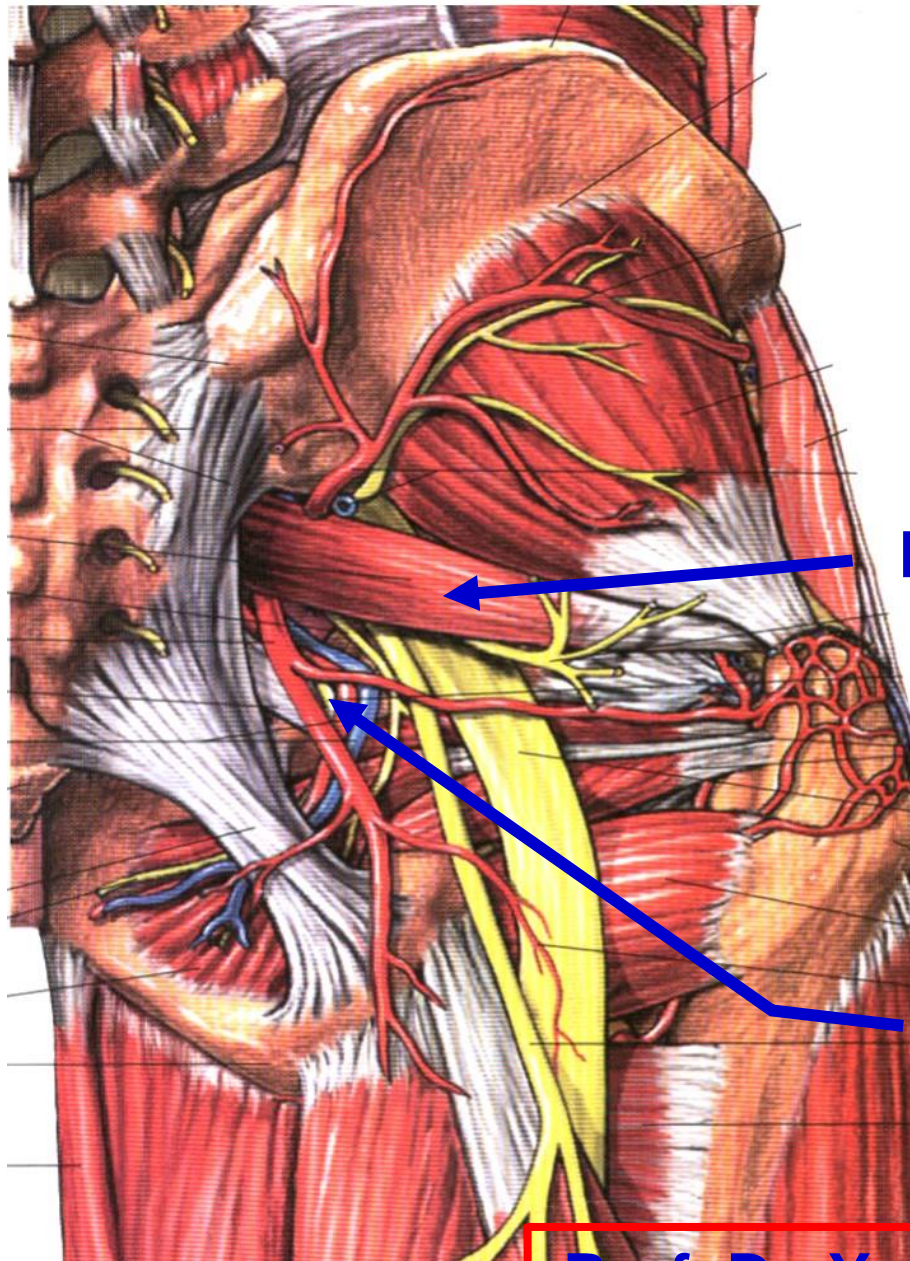
- 1- Inferior rectal artery** inside the canal and crosses the ischiorectal fossa to the rectum and anal canal.
- 2- Perineal artery** to perineum and gives **labial** branch to labia majora and minora.
- 3- Artery of the bulb** of vestibule of the vagina.
- 4- Urethral artery**
- 5- Deep artery of the clitoris.**
- 6- Dorsal artery of the clitoris.**

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Pudendal Nerve

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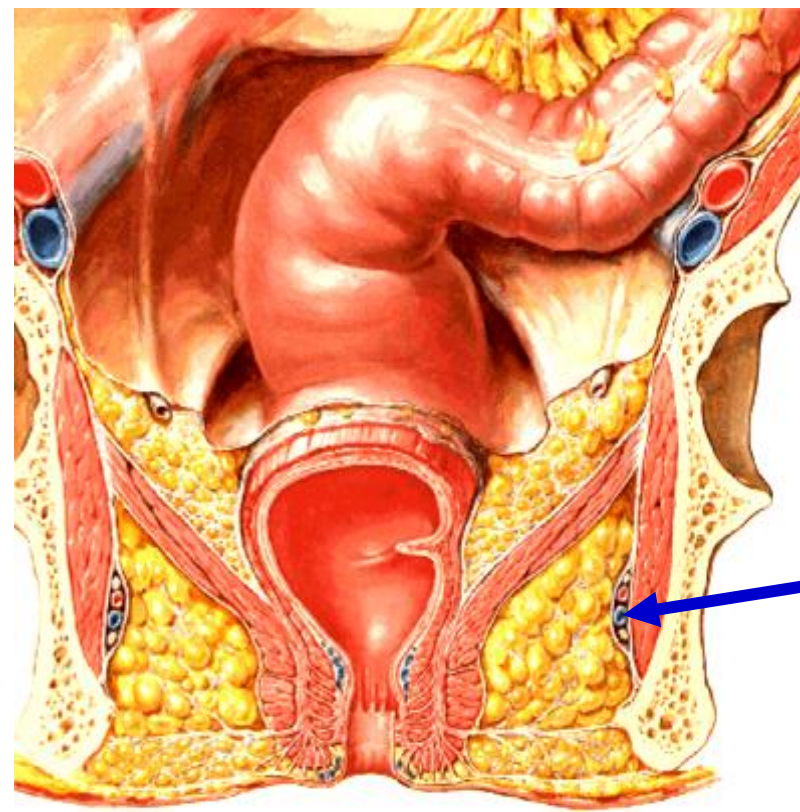
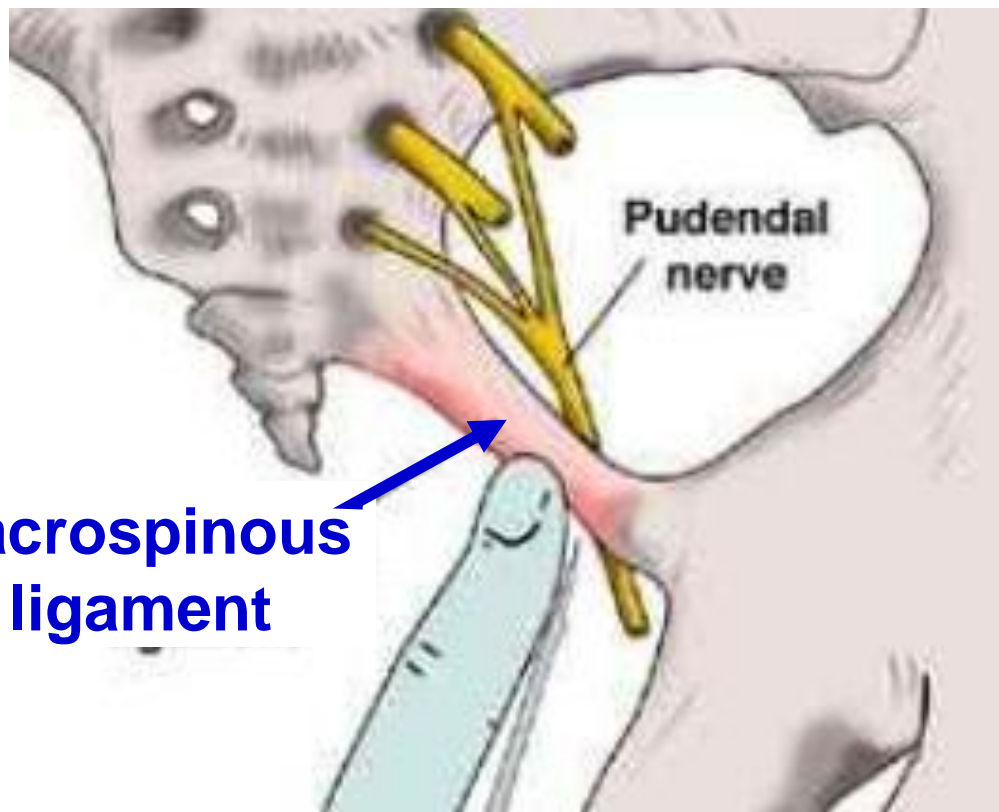


**Piriformis
muscle**

Pudendal Nerve

Pudendal Nerve

- **Origin, sacral plexus**, from anterior division of ventral rami of **S 2, 3, 4**.
- **Course** :
 - It passes through greater sciatic foramen below the piriformis muscle to the gluteal region deep to gluteus maximus.



Pudendal Nerve (S 2, 3, 4)

- Then, It crosses sacrospinous ligament close to its attachment to tip of the ischial spine to reenter the pelvis through the lesser sciatic foramen
- Then passes in pudendal canal with internal pudendal vessel.

Branches of pudendal nerve

Posterior scrotal N

Deep branch of perineal N

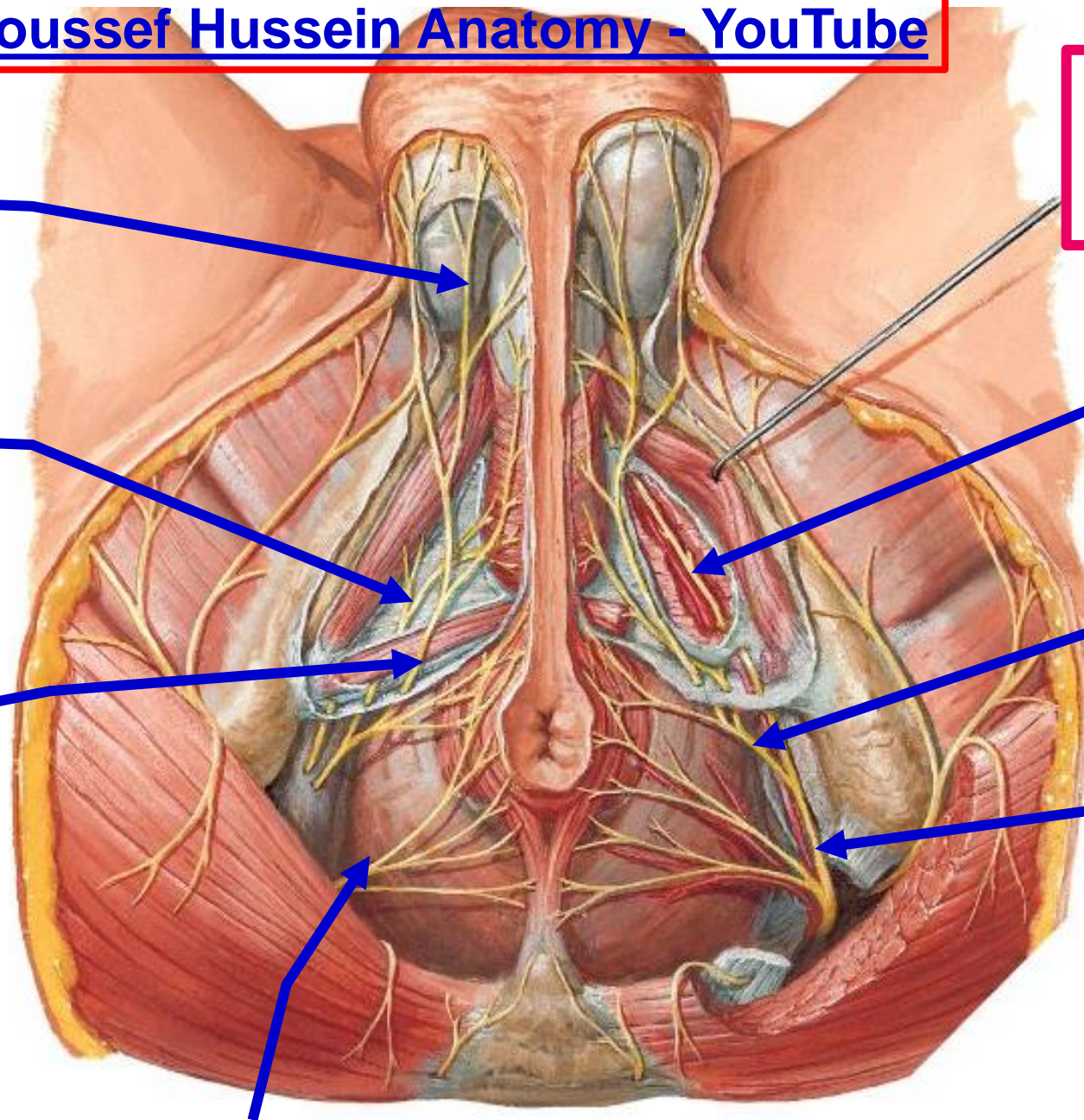
Superficial branch of perineal N

Inferior rectal nerve

Dorsal nerve of penis (Continuation)

Perineal nerve

Pudendal Nerve in pudendal canal



**** Branches of pudendal nerve:**

1. Inferior rectal nerve: arises inside pudendal canal and crosses the ischiorectal fossa to supply Levator ani and External anal sphincter.

- **It gives sensation to lower part of anal canal and perianal skin**

2. Perineal nerve: arises inside the pudendal canal.

A- Deep branch: Muscular branches to levator ani and all perineal muscles (Bulbospongiosus, ischiocavernosus, External urethral sphincter, superficial and deep transverse perineal muscles).

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B- Superficial: (sensory) posterior scrotal or labial nerves, Sensory to perineum, scrotum (male) or labia majora and minora (female).

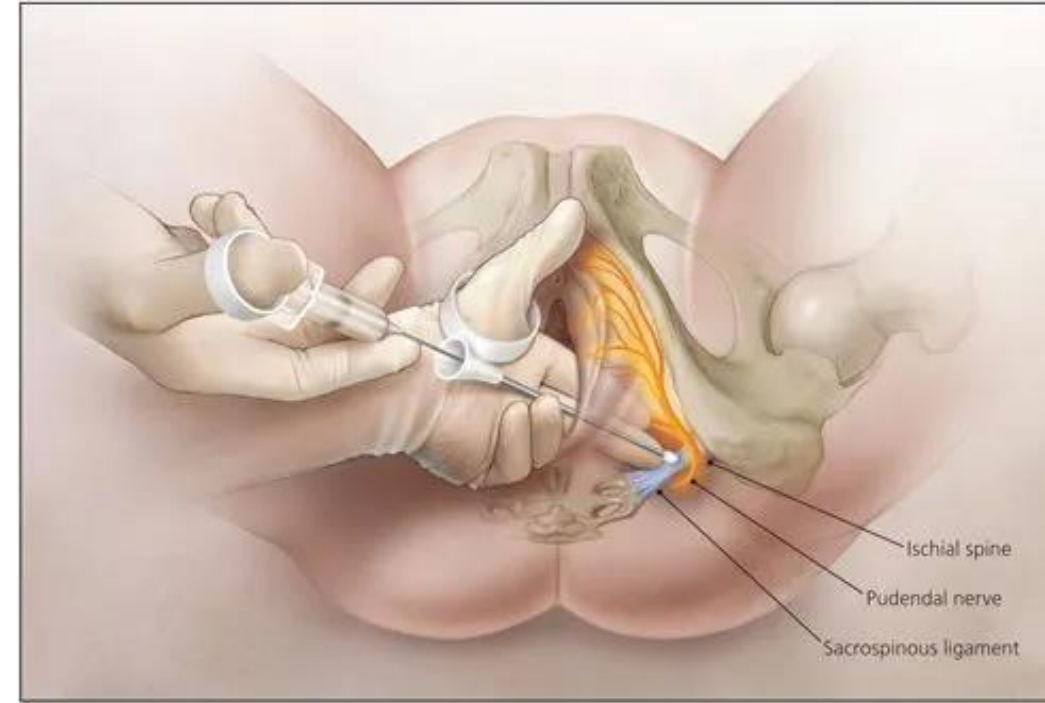
3. Dorsal nerve of penis or clitoris (sensory) its continuation.

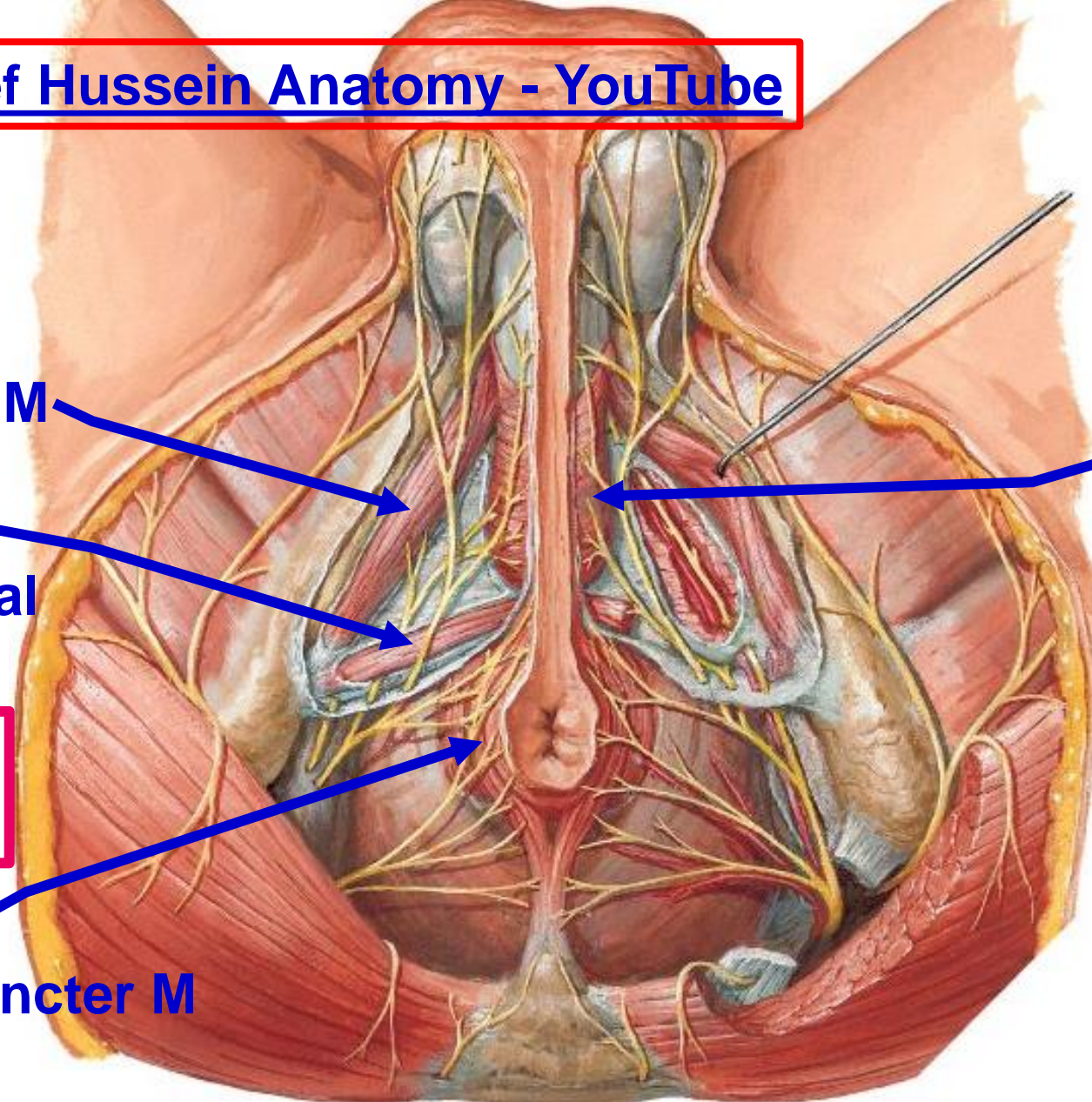
- ❖ **Pudendal nerve provides voluntary control of fecal and urinary continence**
- ❖ **Pudendal nerve carries sensation from external genitalia, skin around anus and perineum**

Clinical notes

Pudendal nerve block

- It is formed during vaginal delivery (childbirth), episiotomy and other minor vaginal procedures
- **The patient in lithotomy position and ischial spine is palpated transvaginal**
- Local anesthesia is injected in the tissue around the ischial spine.
- **The procedure is done on the opposite side.**
- As the pudendal nerve is accompanied with **internal pudendal artery**, it is essential to aspirate before injecting local anesthesia, to avoid administration of local anesthesia to the systemic circulation





Ischiocavernosus M

**Superficial
transverse perineal
M**

**Deep transverse
perineal M**

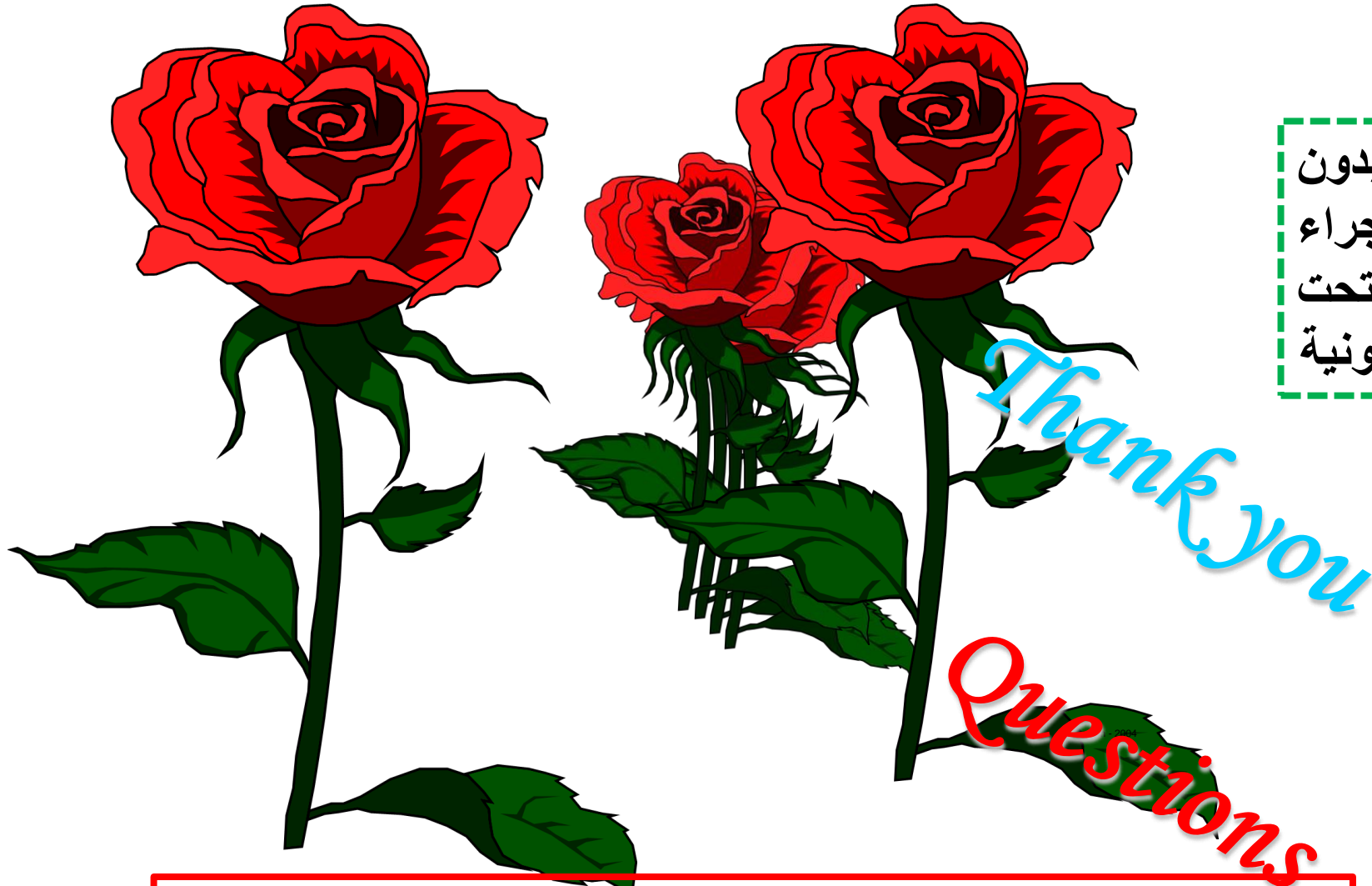
External anal sphincter M

External urethral sphincter M

Bulbosongiosus M

Levator ani M

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Thank You

Questions

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