

UROGENITAL SYSTEM

PELVIC ARTERIES

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Monday 19 May 2025

PELVIC ARTERIES

المعدة (MISO) !!

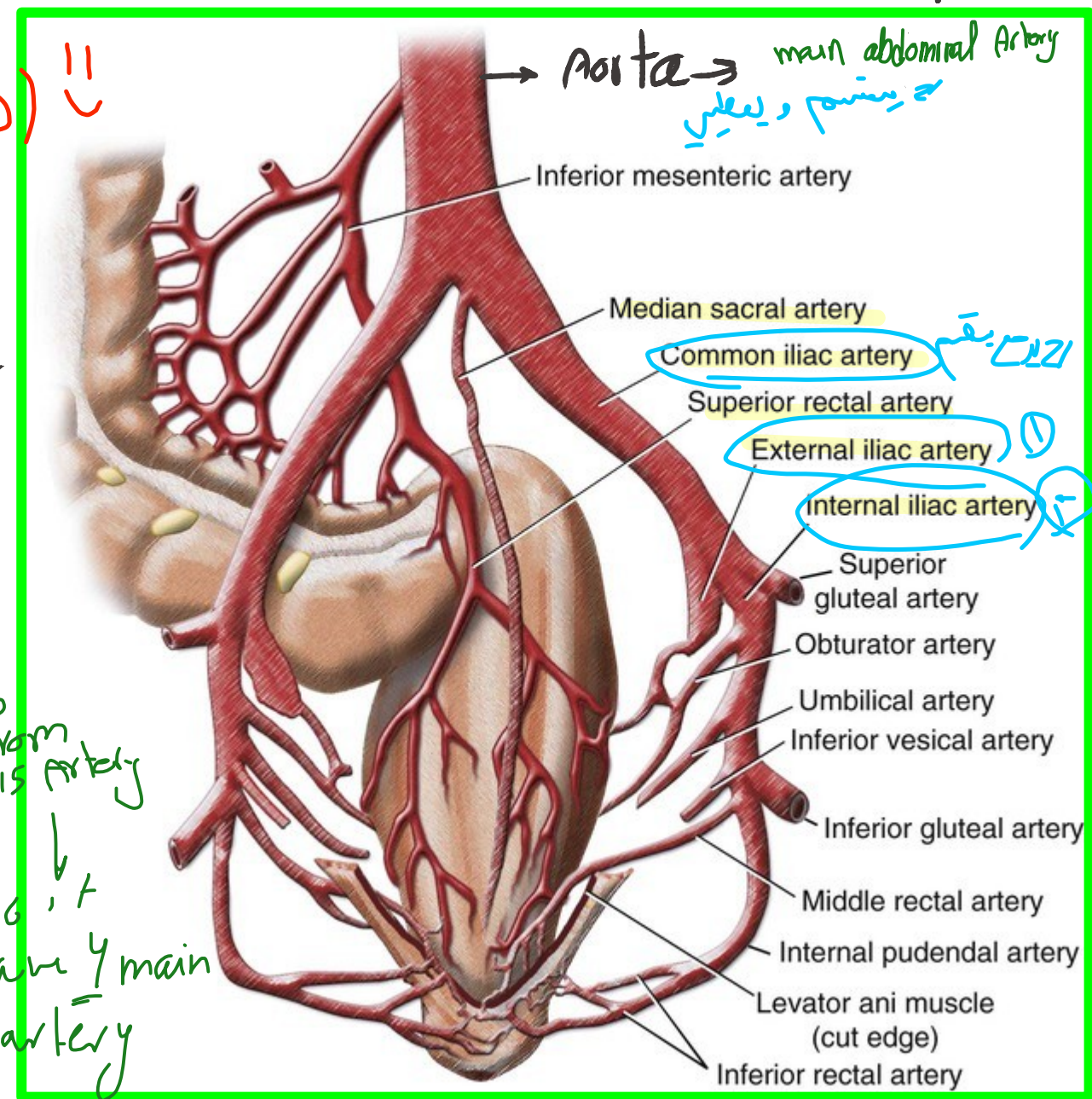
Six main arteries enter the lesser pelvis of females:

- ✓ The paired **internal iliac**
- ✓ The paired **Ovarian arteries**
- ✓ The unpaired **median sacral**
- ✓ The unpaired **superior rectal arteries.**

2
2
1
1
6

❖ Since the testicular arteries do not enter the lesser pelvis, only four main arteries enter the lesser pelvis of males.

out sid the pliver so not from pelvis artery
so it have 4 main artery

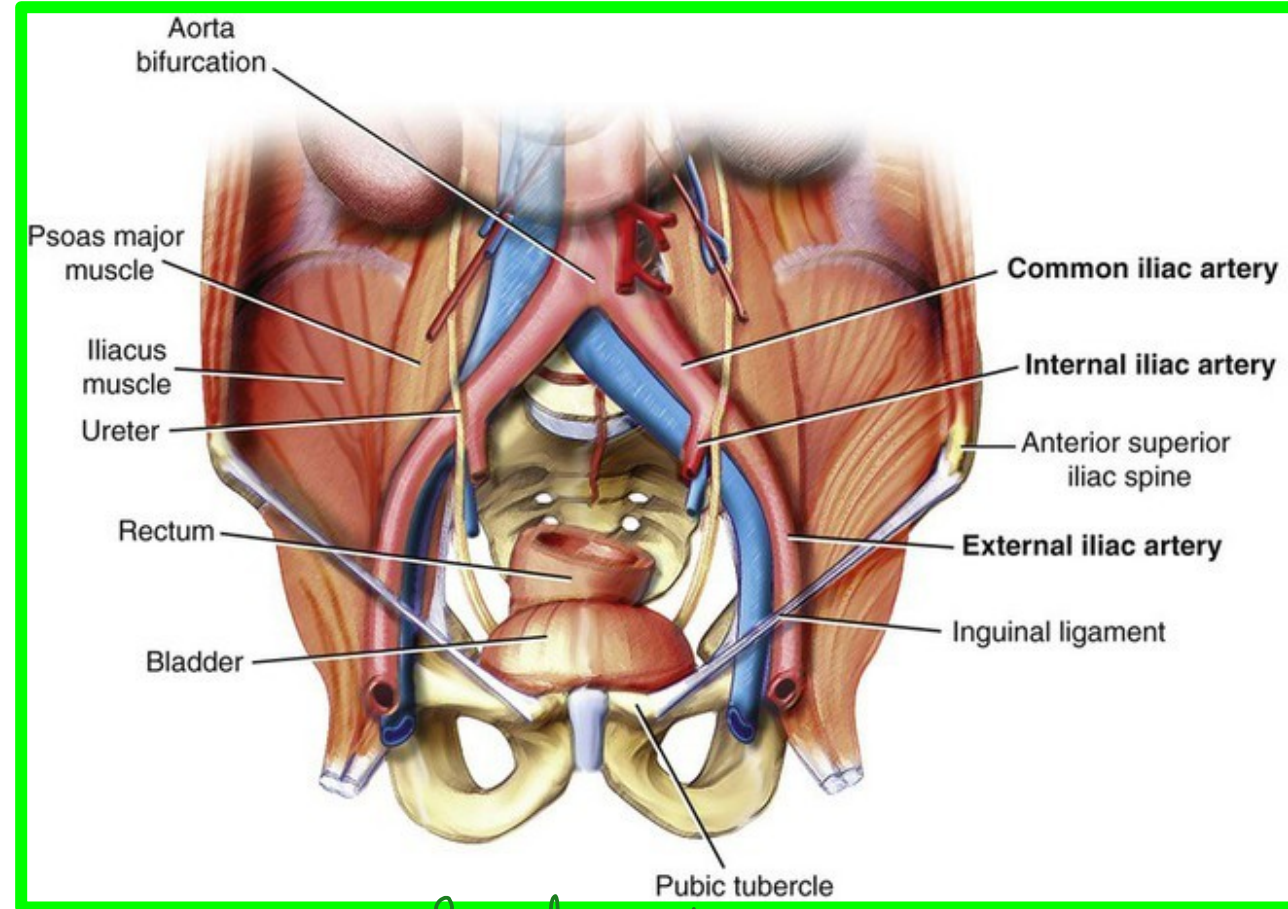


INTERNAL ILIAC ARTERY

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- ❑ Is the principal artery of the pelvis
- ❑ Approximately **4 cm** long
- ❑ Begins as the **common iliac artery** and ^{التشعب} bifurcates into **the internal** and **external iliac arteries**
- ❑ Begins at the level of the IV disc between the **L5 and S1 vertebrae**



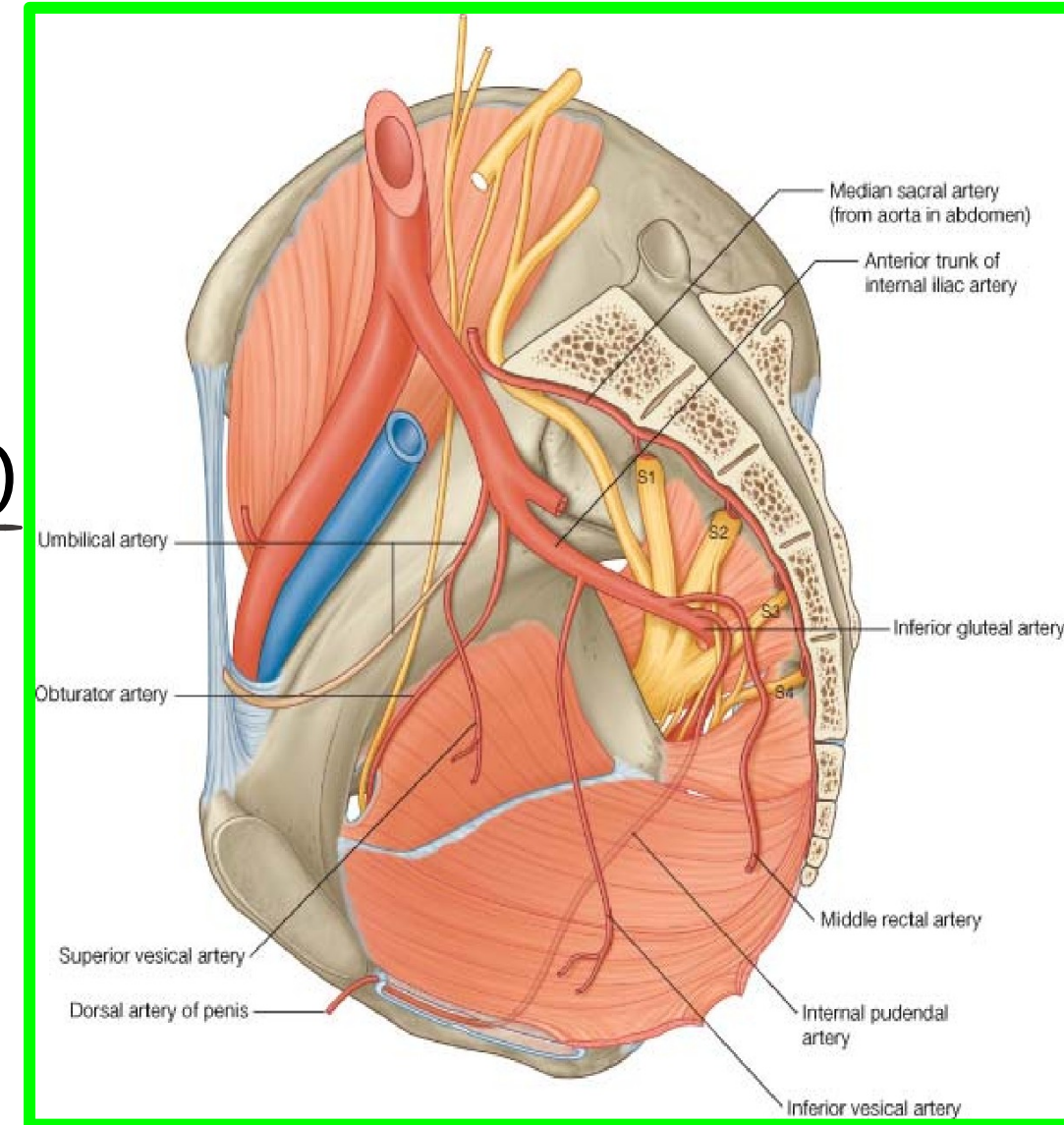
bifurcation ^{التشعب}

- ❑ The internal iliac artery is separated from **the sacroiliac joint** by the **internal iliac vein** and **the lumbosacral trunk**.

BRANCHES OF ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

- ❖ Umbilical
- ❖ Obturator
- ❖ Middle rectal
- ❖ Superior vesical → urinary bladder
- ❖ Uterine (♀)
- ❖ Inferior vesical (often vaginal in females)
- ❖ Inferior gluteal arteries
- ❖ Internal Pudendal

نسيج الكبد
Movs UG UP

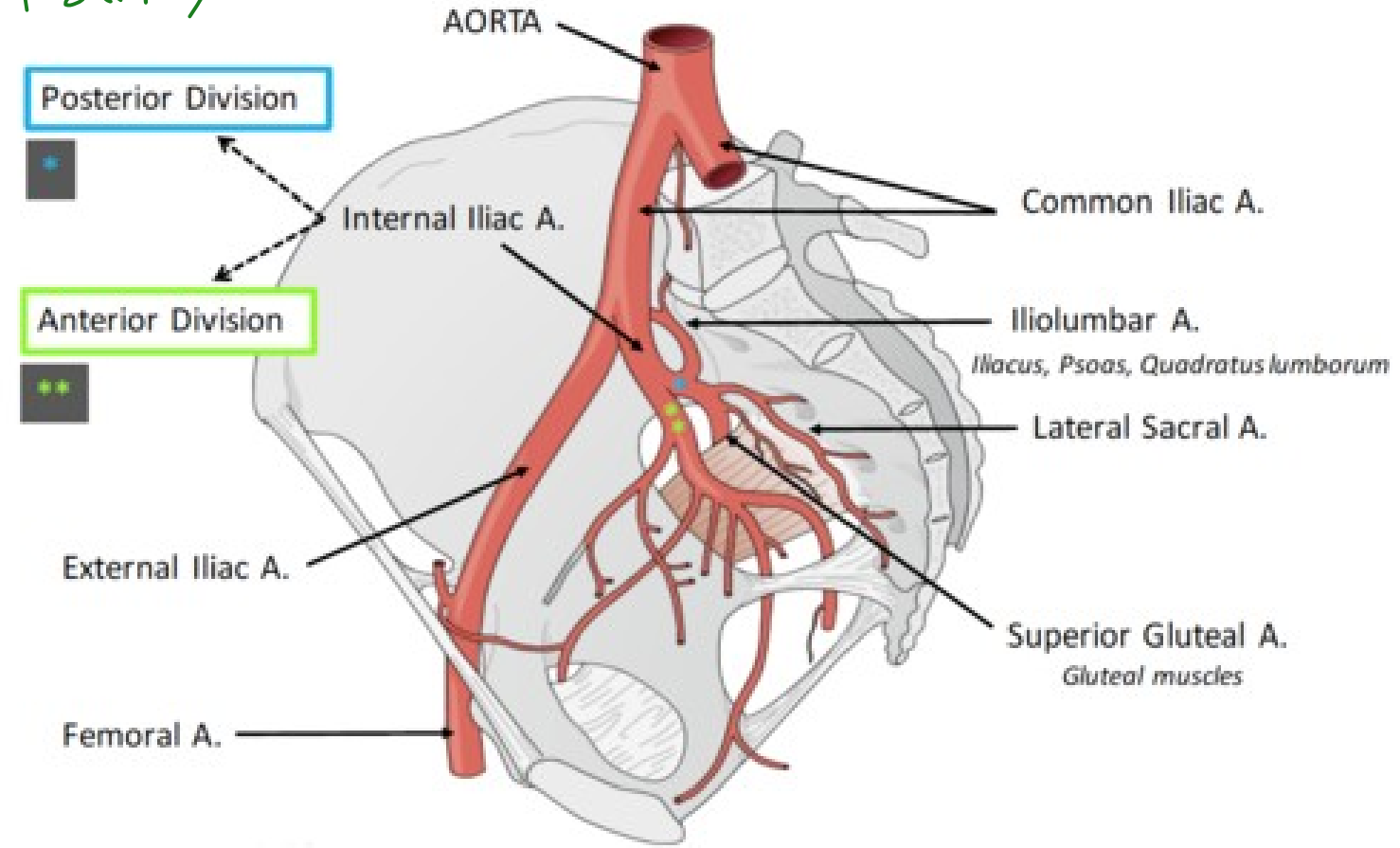


BRANCHES OF POSTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

- ❖ The iliolumbar artery
- ❖ The lateral sacral artery (front of sacral)
- ❖ The superior gluteal artery

ننبيه منازي
يلى قوت منازي

The Blood Supply to the Pelvis



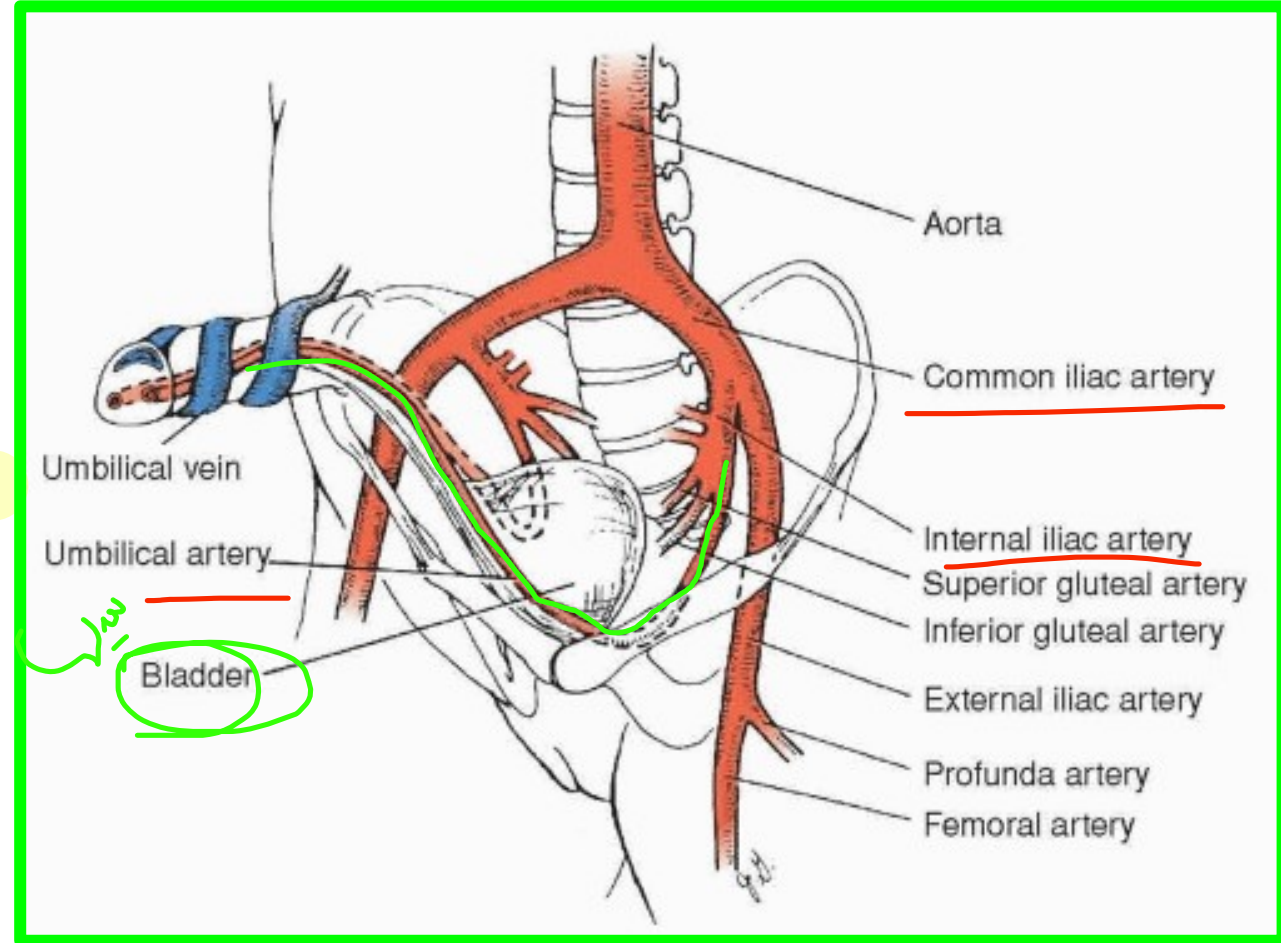
ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

1. Umbilical artery

سنتیج مناسبت
لیگامنت

- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Short pelvic course; obliterates after origin of **superior vesical artery**
- ✓ **Distribution:** Via **superior vesical artery**

سنتیج مناسبت
urinary bladder

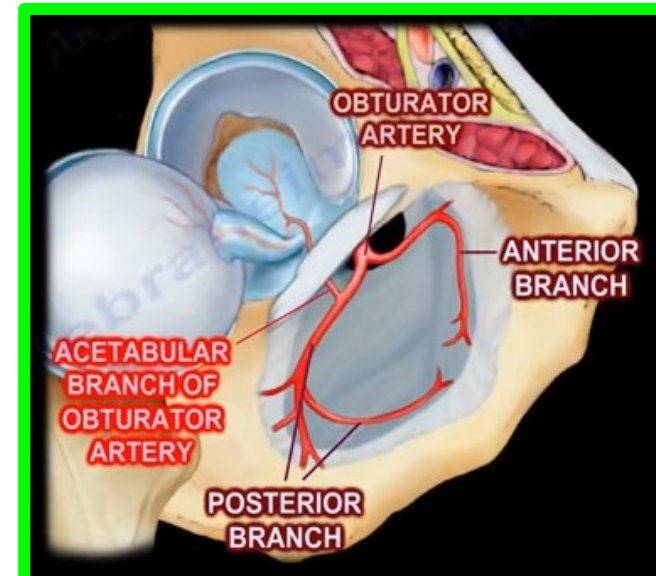
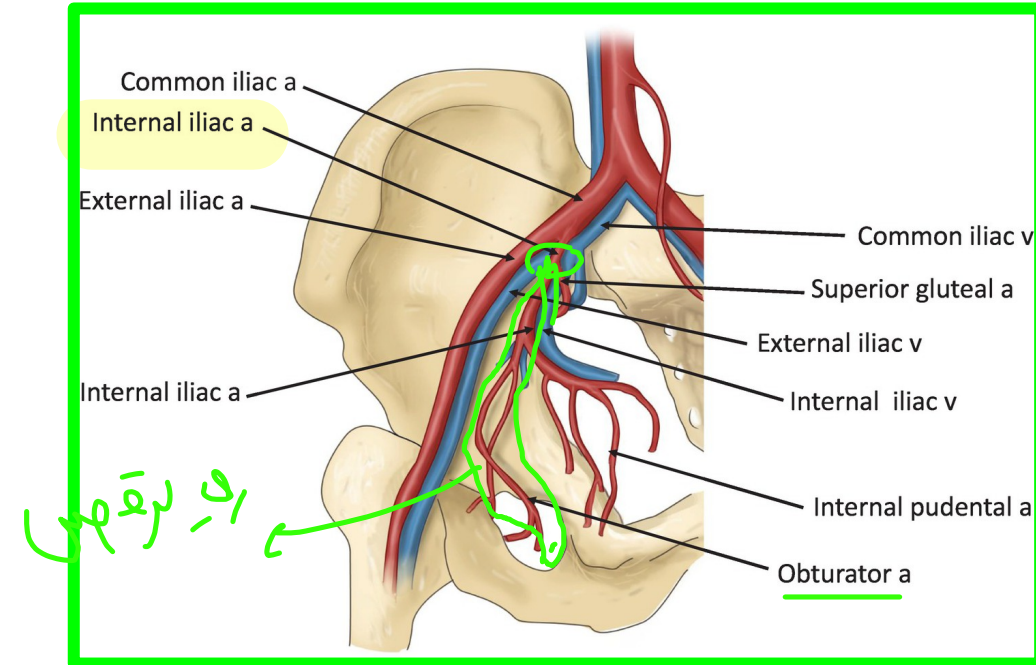


ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

2. Obturator artery

- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Runs antero-inferiorly on lateral pelvic wall
w. ll enter obturator foramen and give branch to:
- ✓ **Distribution:** Pelvic muscles, nutrient artery to ilium, and head of femur and muscles of medial compartment of thigh

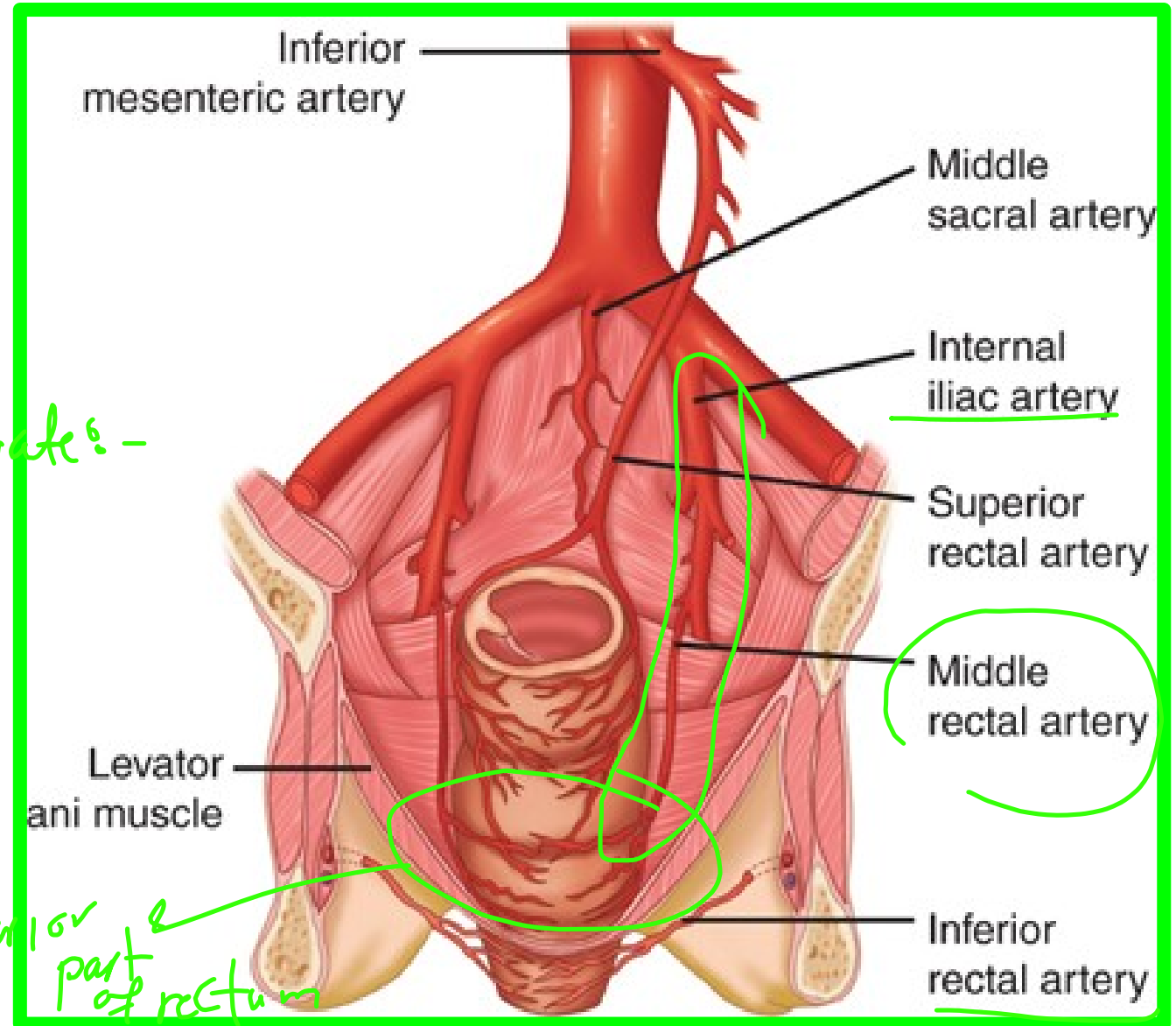
((main artery of medial compartment of the thigh))



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

3. Middle Rectal artery

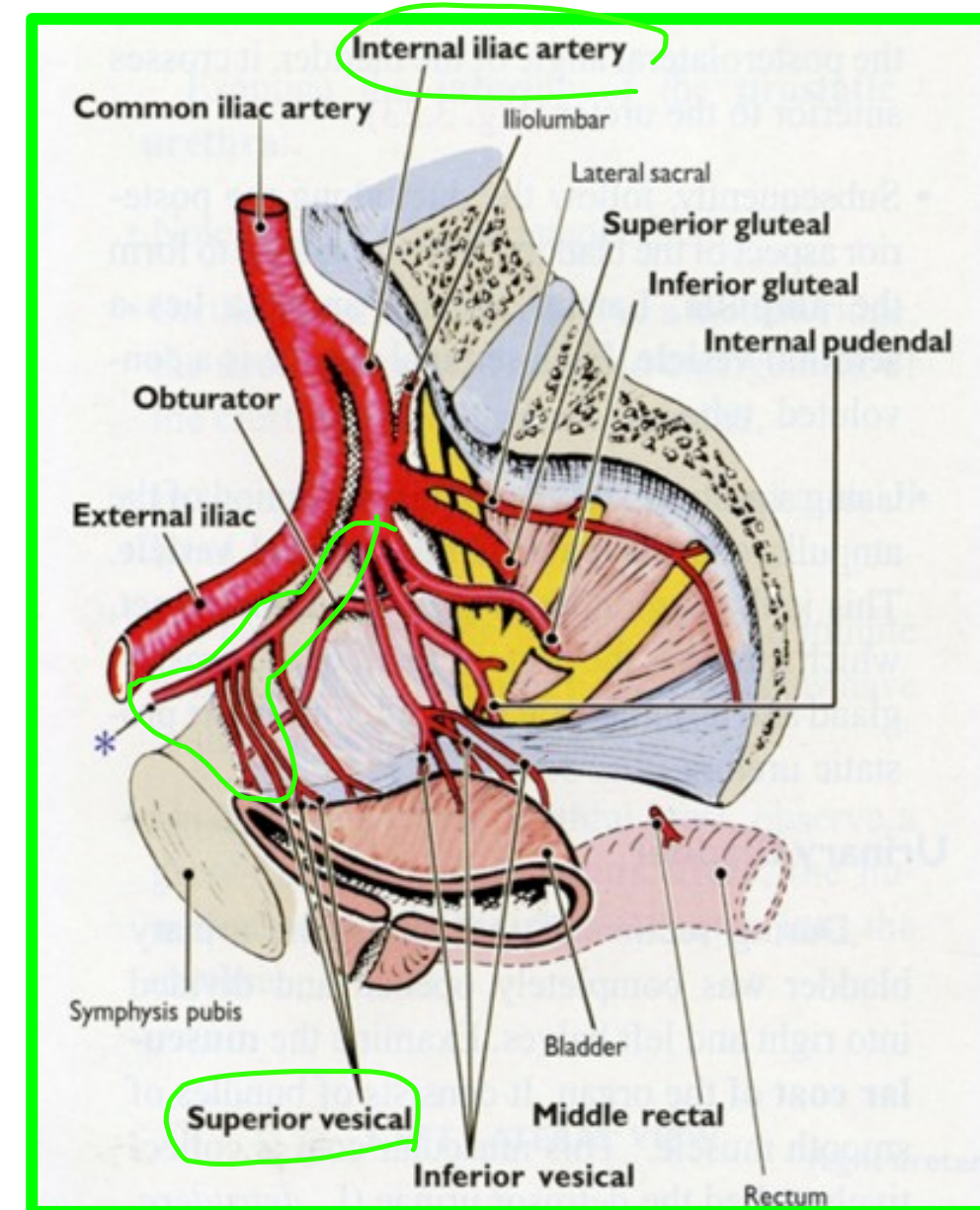
- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Descends in pelvis to rectum in lateral side and *enraves* -
- ✓ **Distribution:** Inferior part of rectum, seminal glands, prostate (vagina)



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

4. Superior vesical artery

- ✓ **Origin:** Patent part of umbilical artery
- ✓ **Course:** Usually multiple; Passes to superior aspect of urinary bladder
- ✓ **Distribution:** Superior ^{surface} aspect of urinary bladder; in some males, ductus deferens (via artery to ductus deferens)

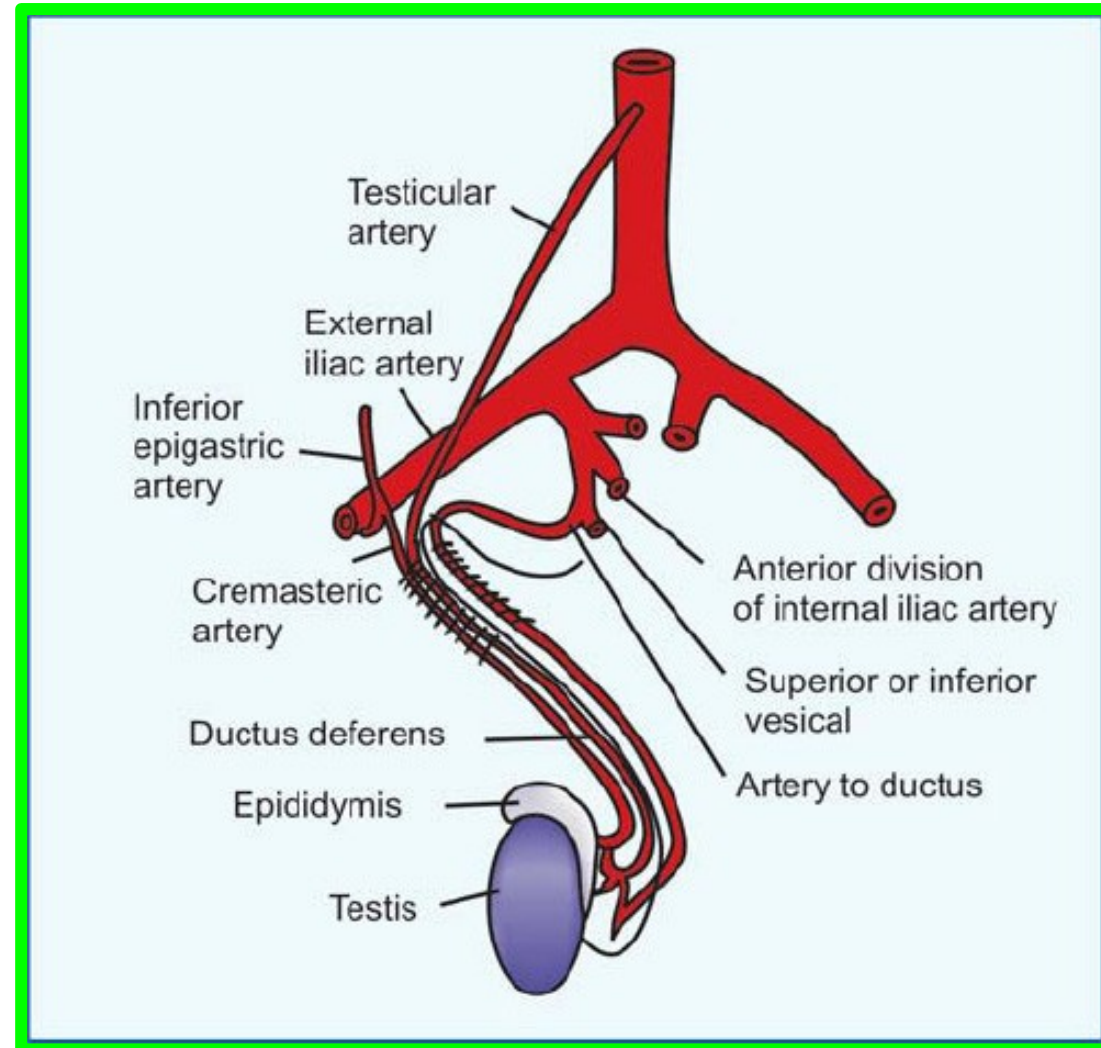


ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

4. 1. Artery to ductus deferens

- ✓ **Origin:** Superior or inferior vesical artery
- ✓ **Course:** Runs subperitoneally to ductus deferens
تحت التوقيف البطن
- ✓ **Distribution:** Ductus deferens

inferior iliac artery → umbilical artery → superior vesical artery
ductus deferens



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

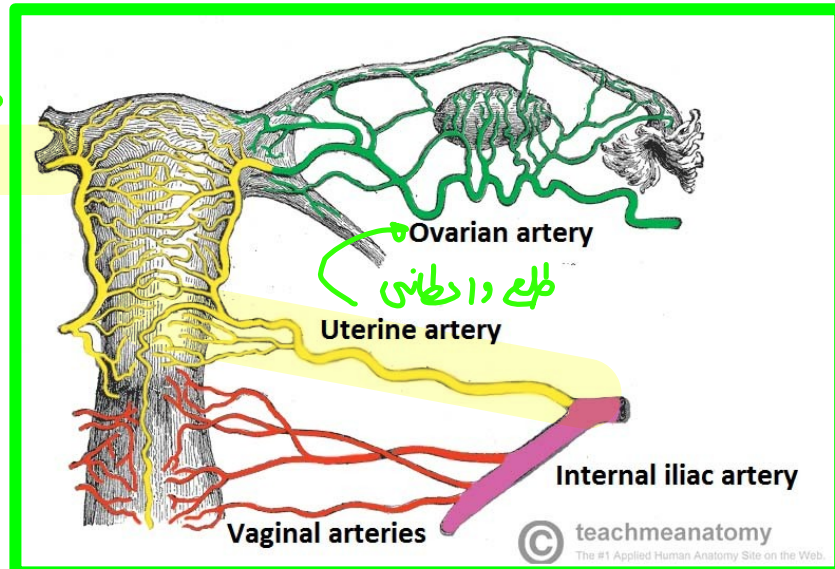
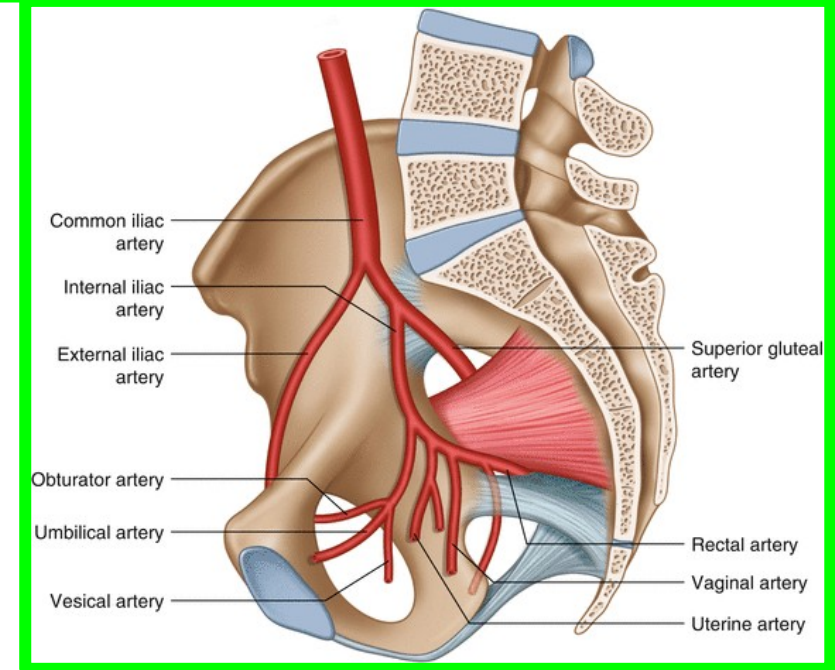
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5. Uterine artery

من 21 /

- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Runs anteromedially in base of broad ligament/superior cardinal ligament, **gives rise to vaginal branch**, then crosses ureter superiorly to reach lateral aspect of uterine cervix

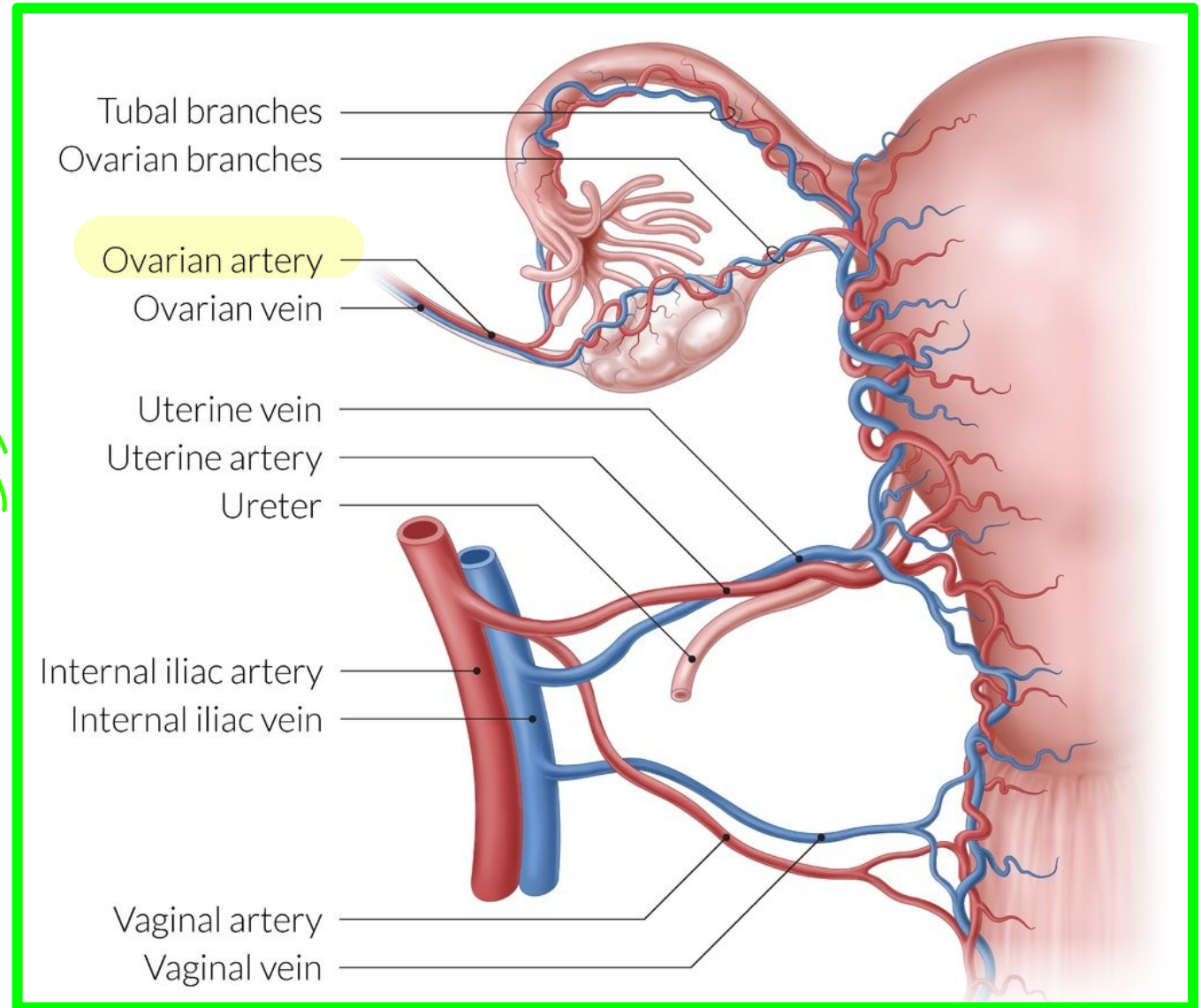
ureter { من تحتها، فوقها، بينهما }
- ✓ **Distribution:** **Uterus**, ligaments of uterus, medial parts of **uterine tube** and **ovary**, and **superior vagina**



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

5. 1. Vaginal artery

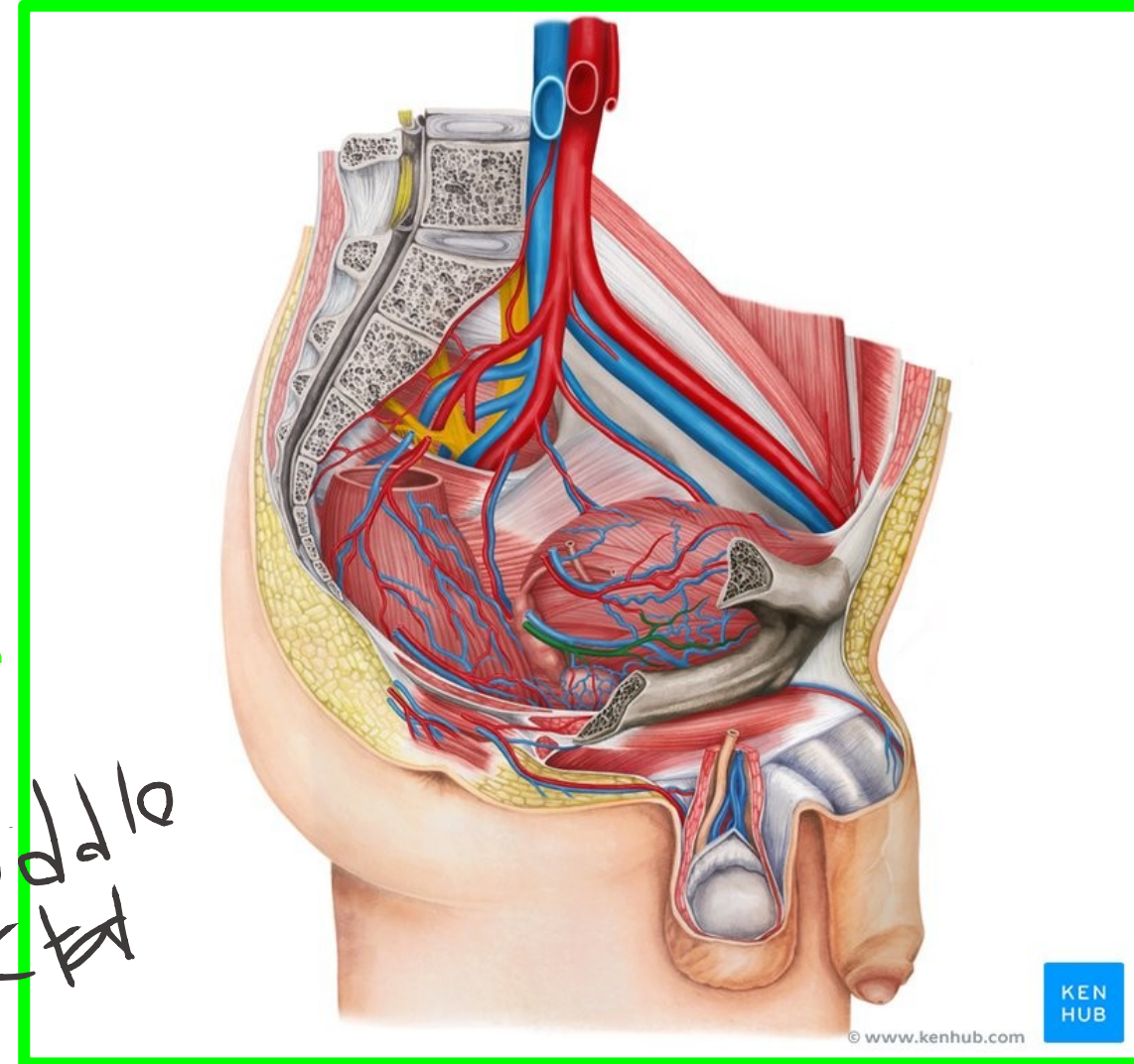
- ✓ **Origin:** Uterine artery
- ✓ **Course:** At junction of body and cervix of uterus, it descends to vagina
التقاء جسم الرحم مع عنق الرحم
رطوع عنق الرحم
- ✓ **Distribution:**
 - ❖ **Vaginal branch:** lower vagina, vestibular bulb, and adjacent rectum;
 - ❖ **Inferior vesical branch:** fundus of urinary bladder



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

6. Inferior vesical artery

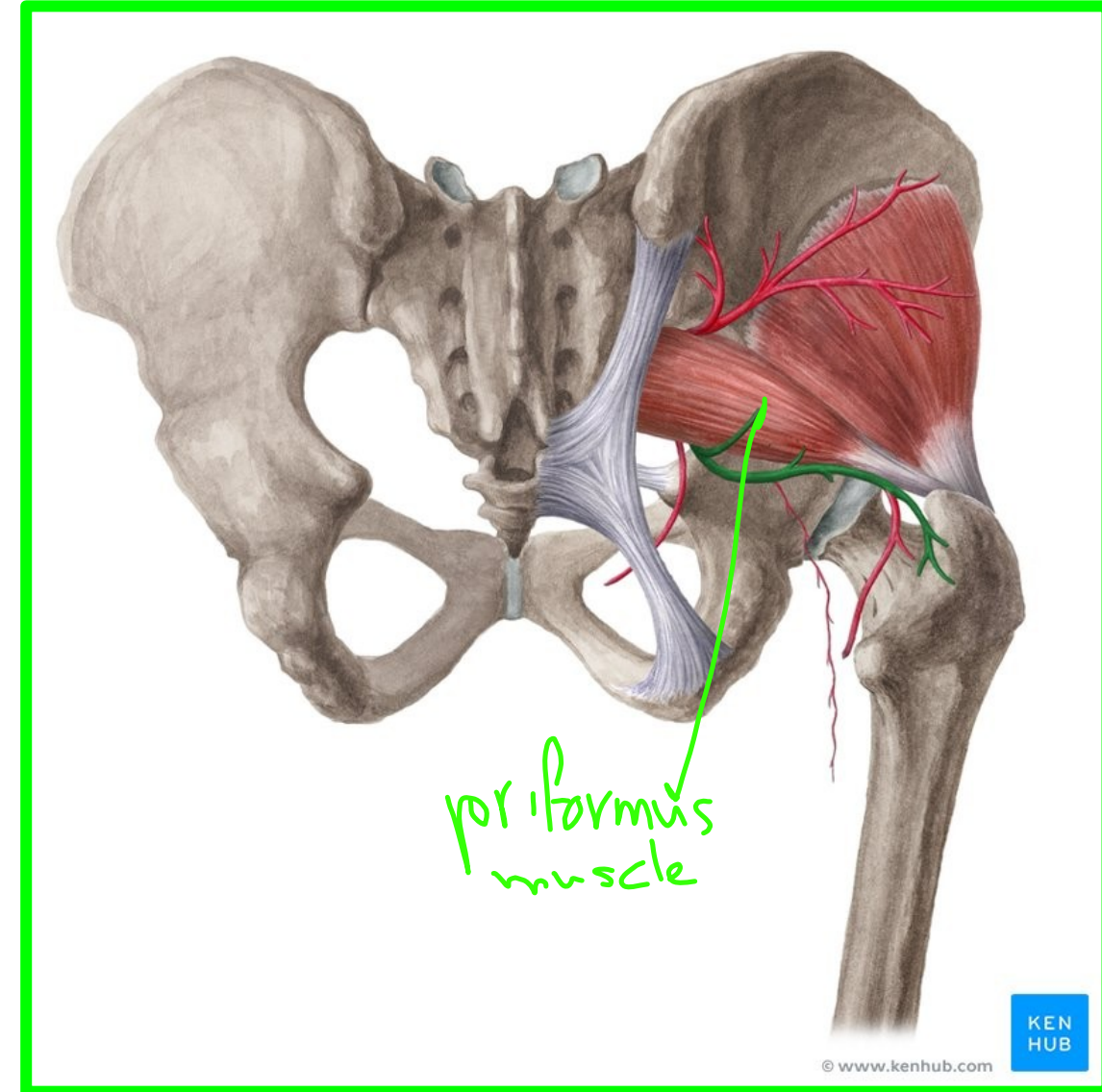
- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Passes subperitoneally to inferior aspect of male urinary bladder
like ductus deference
1st. Div.
- ✓ **Distribution:** Urinary bladder and pelvic part of ureter, seminal gland, and prostate in males
found on fundus
like middle rect



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

7. Inferior gluteal artery

- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Leaves pelvis through greater sciatic foramen inferior to piriformis
- ✓ **Distribution:** Piriformis, coccygeus, levator ani, and gluteal muscles



ANTERIOR DIVISION OF INTERNAL ILIAC ARTERY.

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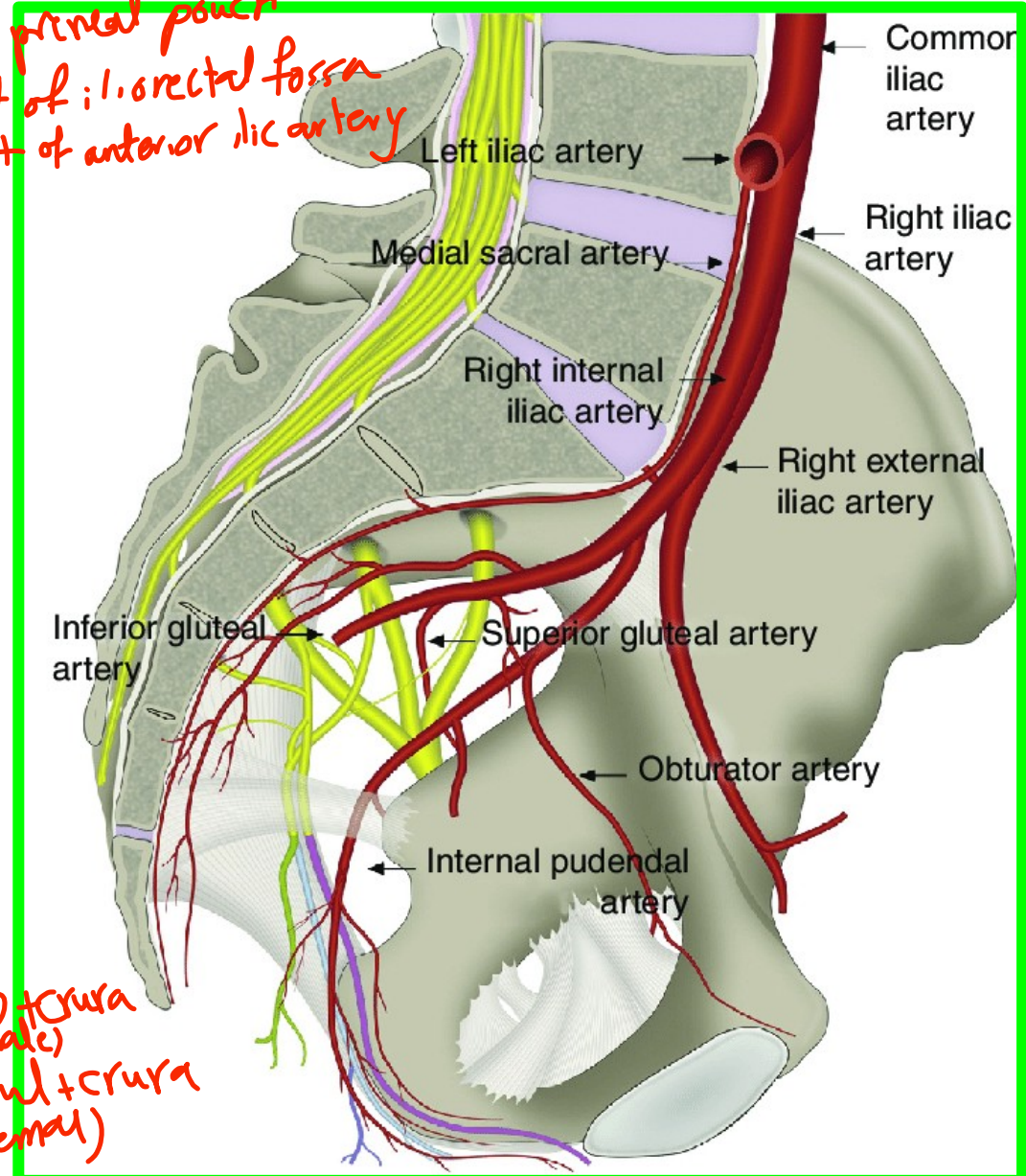
8. Internal pudendal artery

- ✓ **Origin:** Anterior division of internal iliac artery
- ✓ **Course:** Leaves pelvis through greater sciatic foramen and enters perineum (ischio-anal fossa) by passing through lesser sciatic foramen
- ✓ **Distribution:** Main artery to perineum, including muscles of anal canal and perineum; skin and urogenital triangle; erectile bodies

deep preening + superficial preening pouch
is a part of ischioanal fossa
part of anterior iliac artery

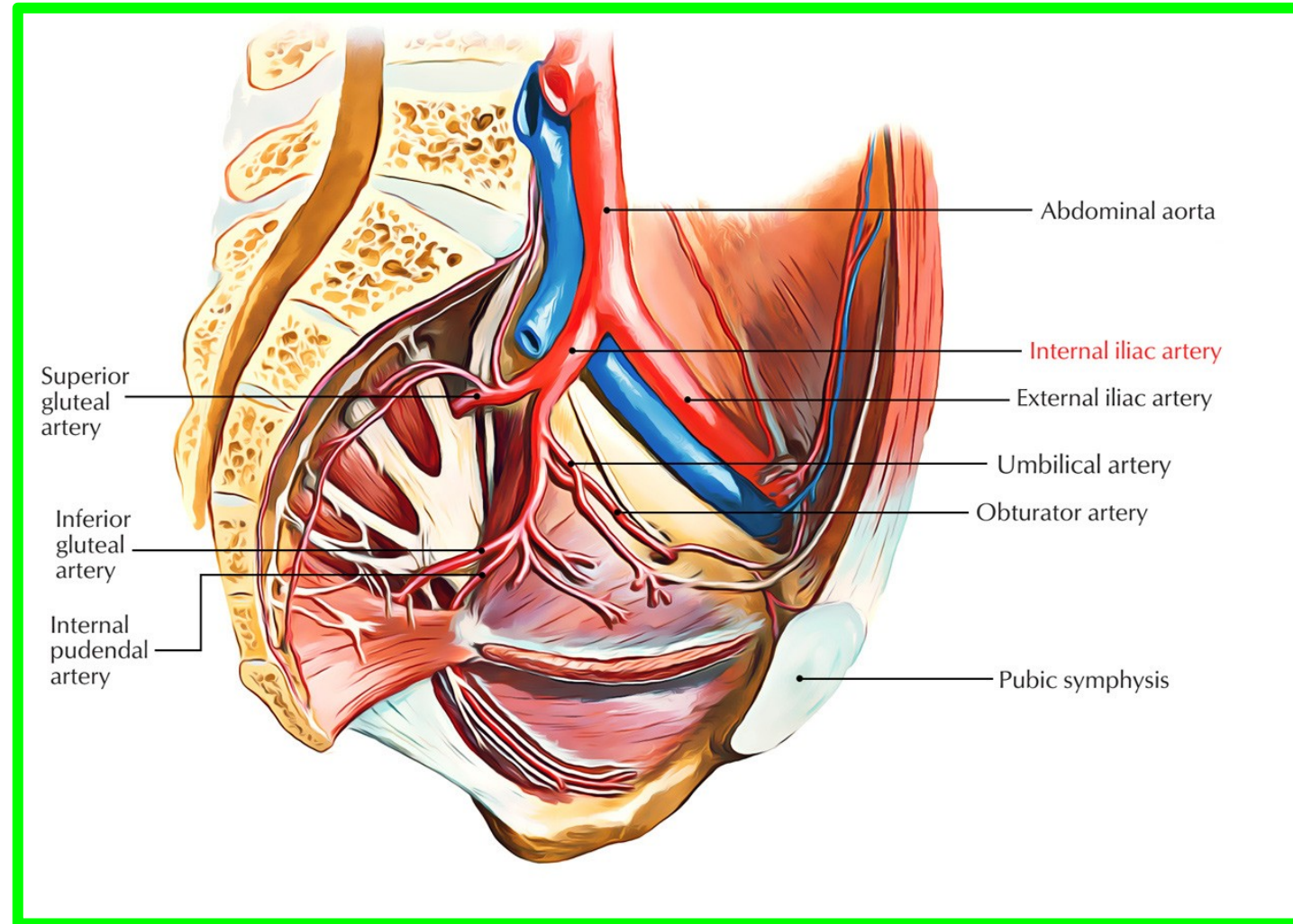
hemiductal is urethral *

bulb + crura (male)
vestibul + crura 15 (female)



Posterior division of internal iliac artery

- ✓ **Origin:** Internal iliac artery
- ✓ **Course:** Passes posteriorly and gives rise to parietal branches
- ✓ **Distribution:** Pelvic wall and gluteal region

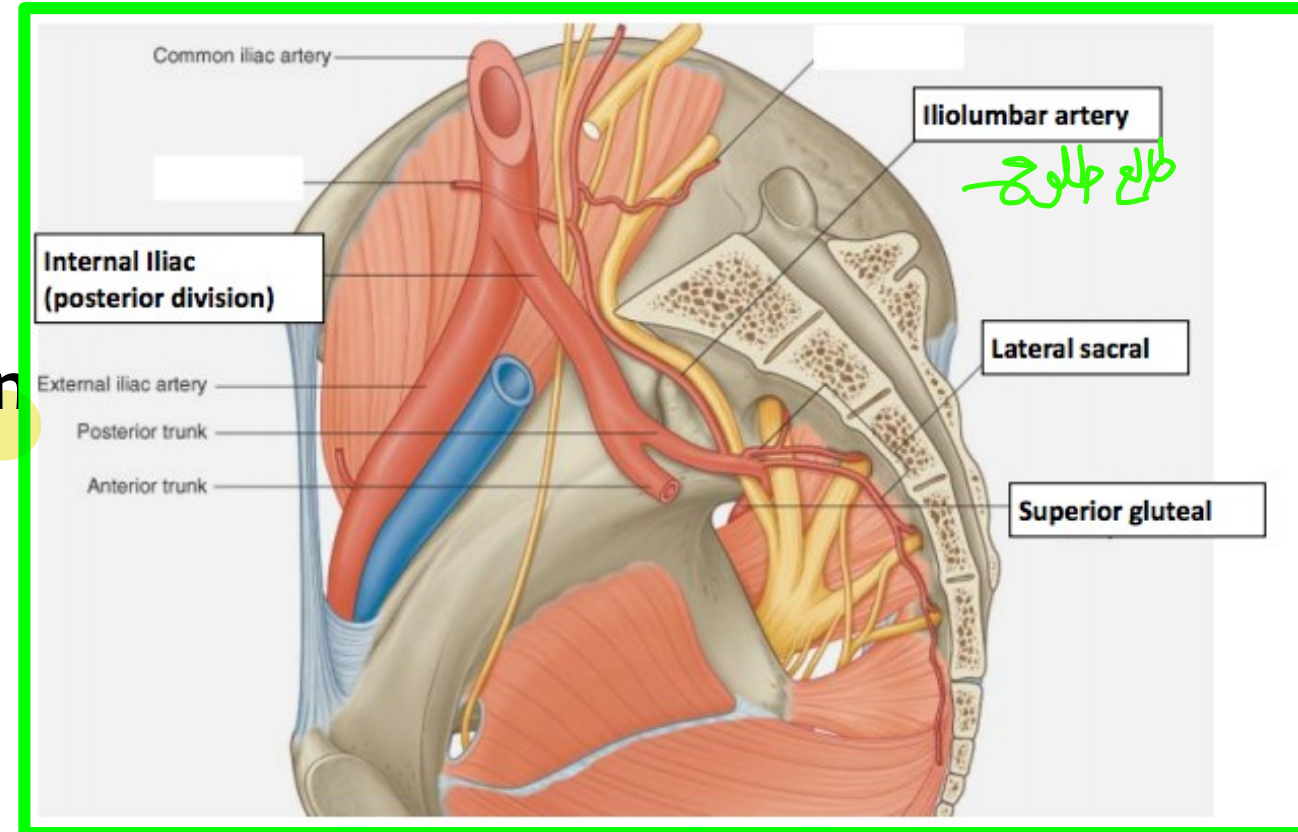


Posterior division of internal iliac artery

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1. Iliolumbar Artery

- ✓ **Origin:** Posterior division of internal iliac artery
- ✓ **Course:** Ascends anterior to sacroiliac joint and posterior to common iliac vessels and psoas major
- ✓ **Distribution:** Iliacus, psoas major, quadratus lumborum muscles, and cauda equina in vertebral canal



Posterior division of internal iliac artery

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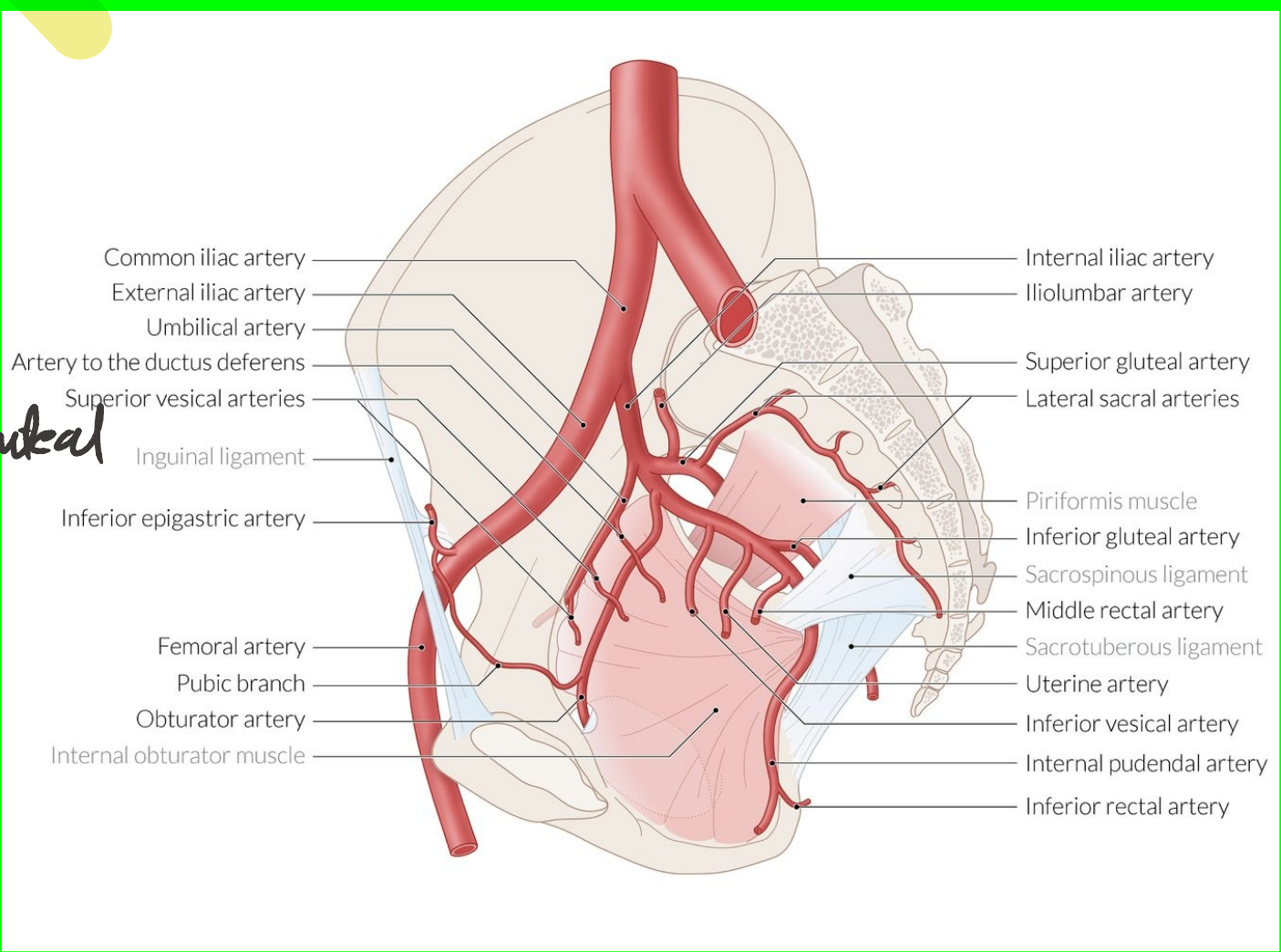
2. Lateral sacral (superior and inferior) Artery

✓ **Origin:** Posterior division of internal iliac artery

✓ **Course:** Run on superficial aspect of piriformis

✓ **Distribution:** Piriformis and vertebral canal

سكس
inferior gluteal
artery



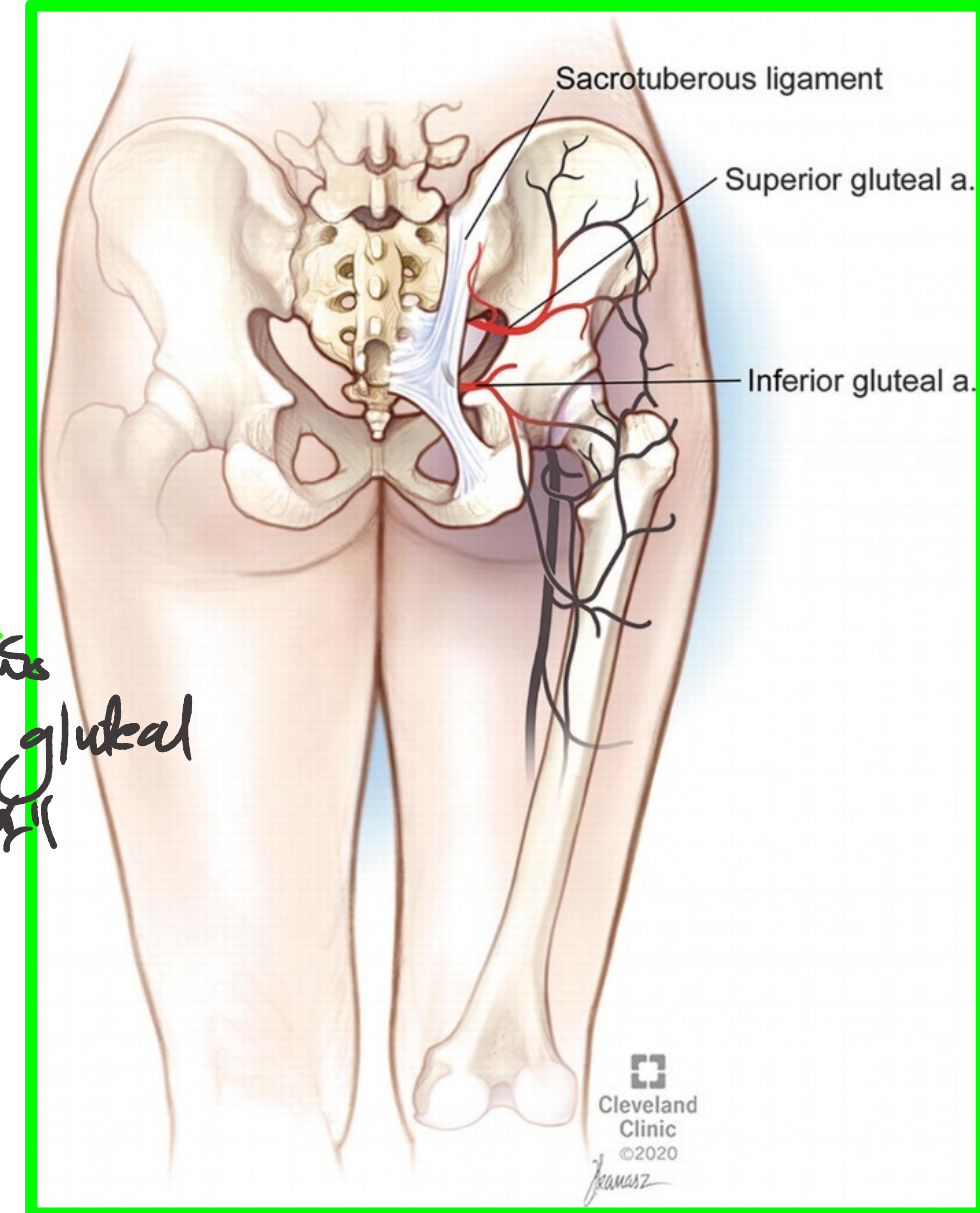
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Posterior division of internal iliac artery

3. Superior gluteal Artery

- ✓ **Origin:** Posterior division of internal iliac artery
- ✓ **Course:** Leaves pelvis through greater sciatic foramen, superior to piriformis
- ✓ **Distribution:** Gluteal ^{3 muscles} muscles and tensor fasciae latae

infragluteal artery



Gonadal Artery from Abdominal aorta Descends retroperitoneally

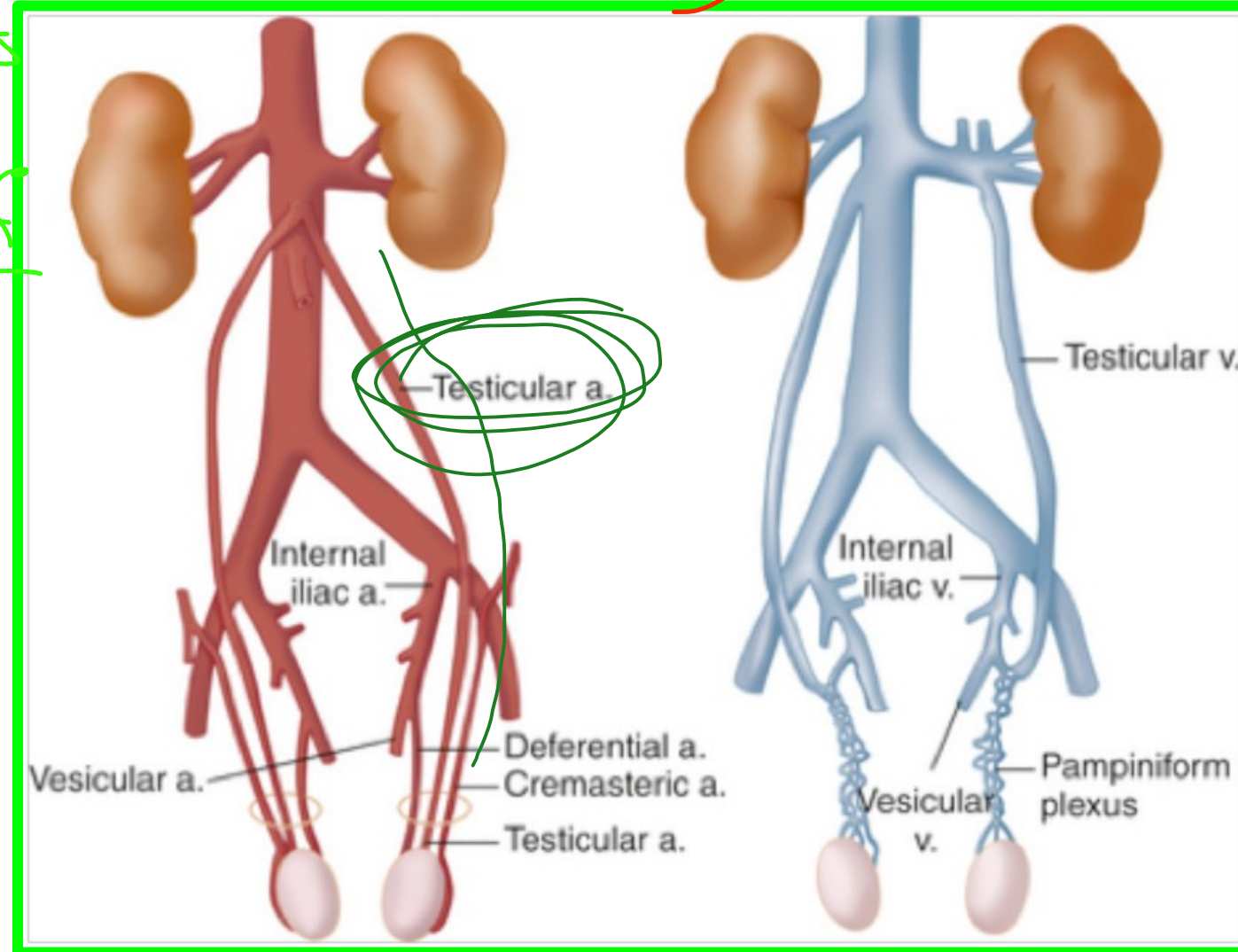
Testicular Artery (♂)

- ✓ **Origin:** Abdominal aorta
- ✓ **Course:** traverses inguinal canal and enters scrotum
- ✓ **Distribution:** Abdominal ureter, testis, and epididymis

inferior vesical a. gives uter

plevis
so
vagina
IIA

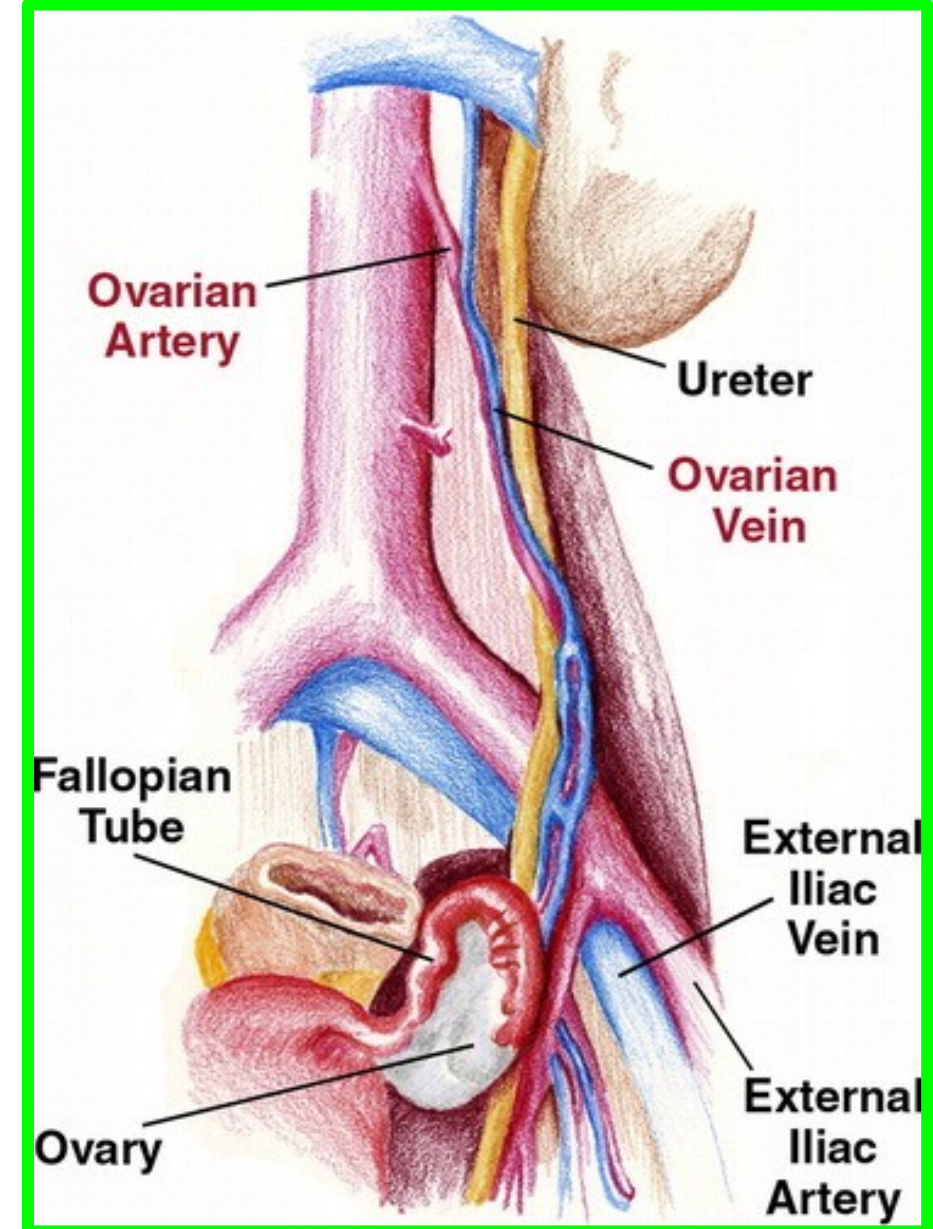
direct



Gonadal Artery from Abdominal aorta Descends retroperitoneally

Ovarian Artery (♀)

- ✓ **Origin:** Abdominal aorta
- ✓ **Course:** crosses pelvic brim, descends in suspensory ligament of ovary
- ✓ **Distribution:** Abdominal and/or pelvic ureter, ovary, and ampullary end of uterine tube



Superior rectal Artery

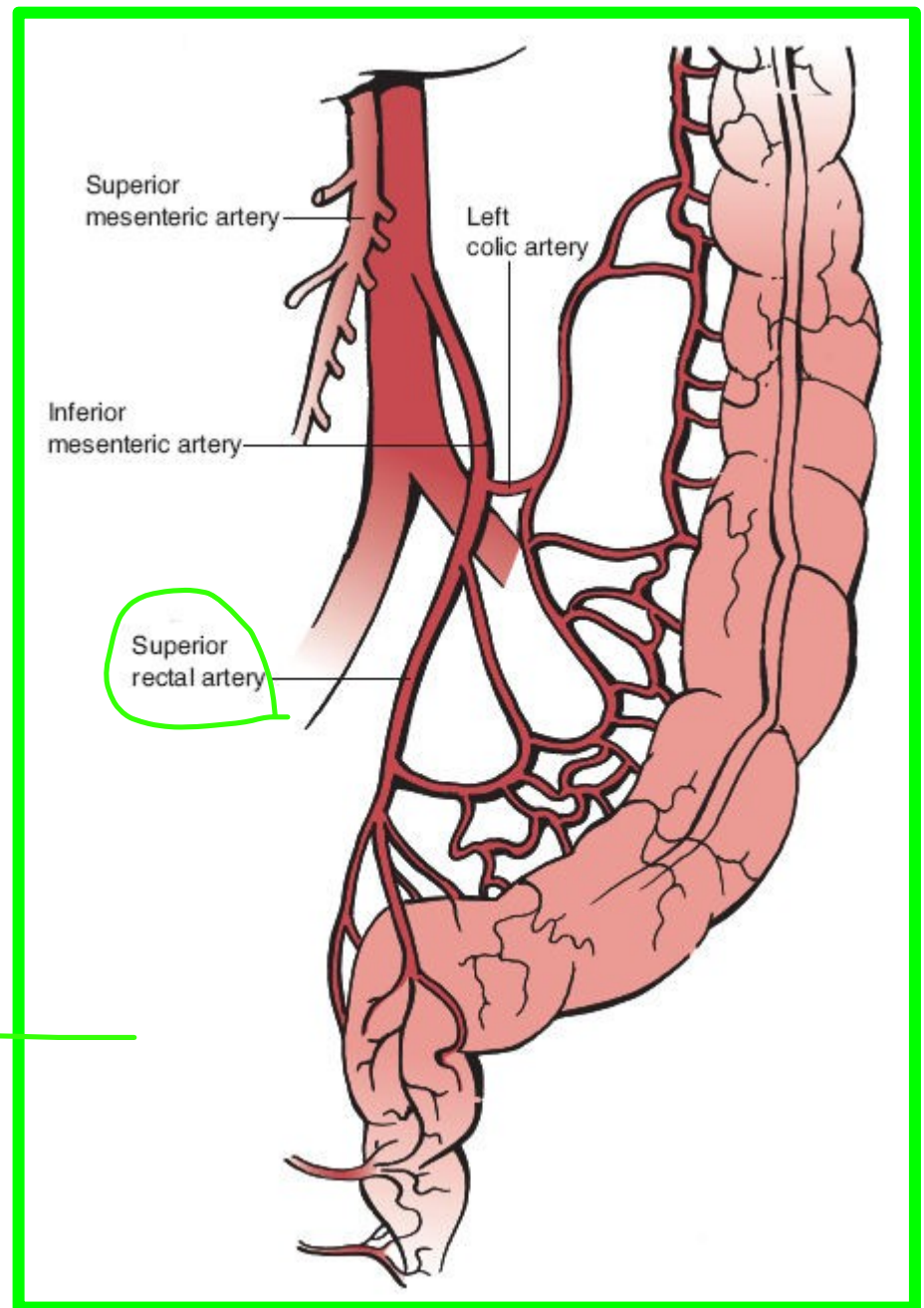
(single)

- ✓ **Origin:** Continuation of inferior mesenteric artery
- ✓ **Course:** Crosses left common iliac vessels and descends into pelvis between layers of sigmoid mesocolon
- ✓ **Distribution:** Superior part of rectum

من الشريان
المزمن

بين طبقتي
المزمن

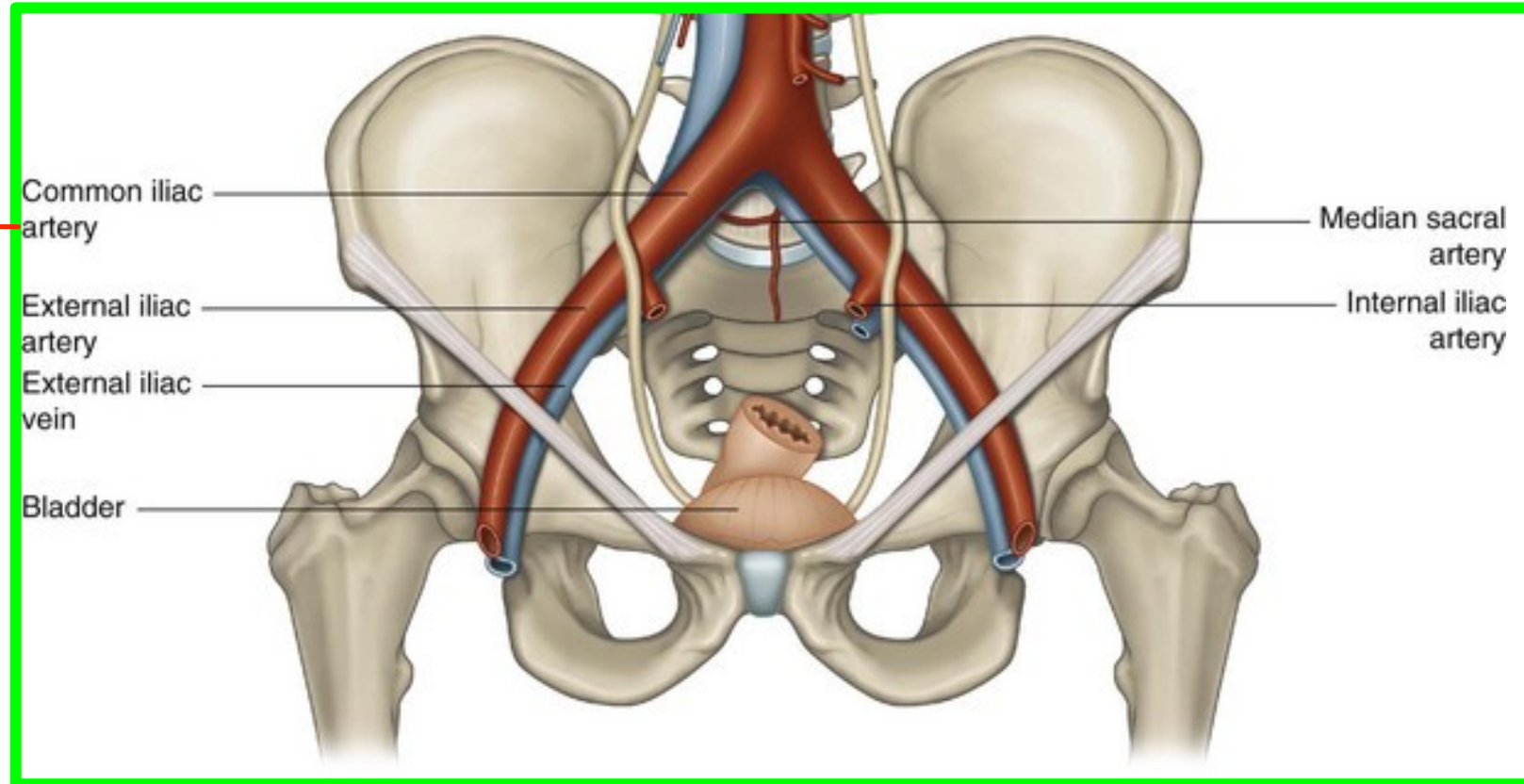
2 من الشريان
المتوسط
الجزء
الأسفل



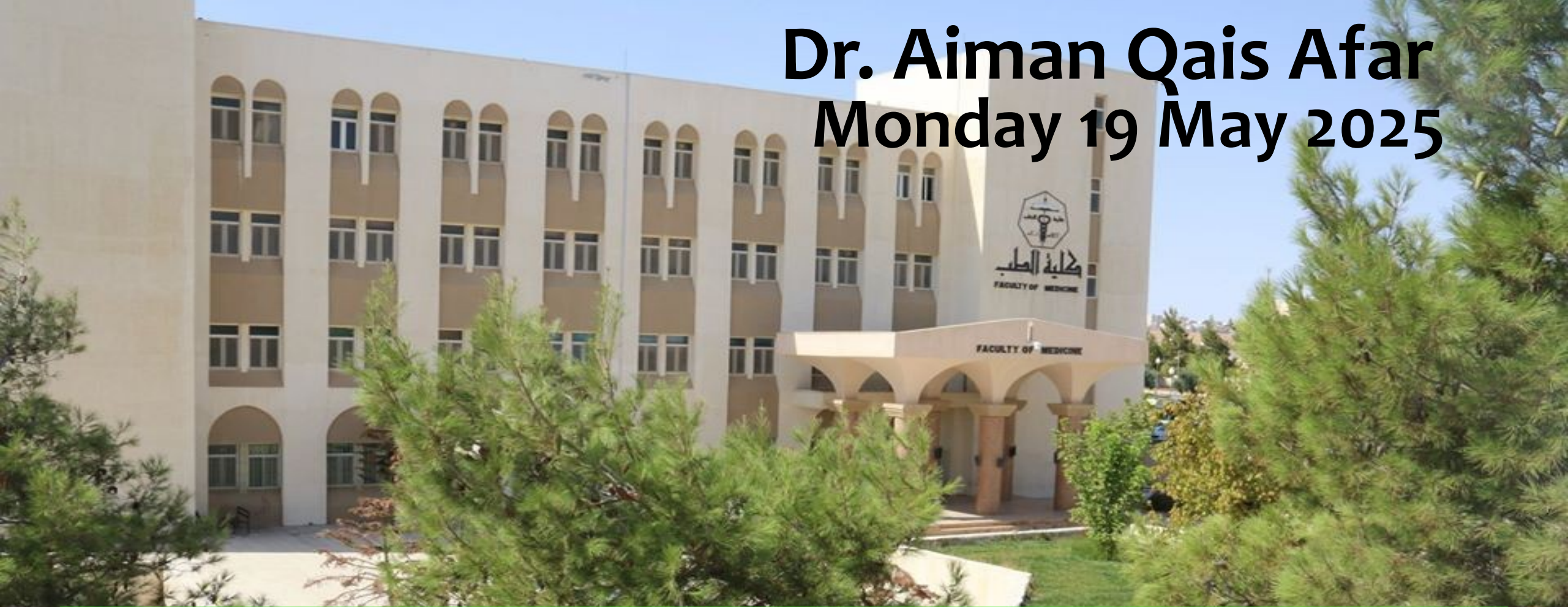
Median sacral Artery

Single

- ✓ **Origin:** Posterior aspect of abdominal aorta
- ✓ **Course:** Descends close to midline over **L4 and L5 vertebrae**, sacrum, and coccyx
- ✓ **Distribution:** Inferior lumbar vertebrae, sacrum, and coccyx



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هنا تعاظمت الامل والعبر
تتم بالعطر- تحنانا وتنتشر
مال الوداع خليط ملؤه الحذر
فالوجه مبتسم والدمع منهمر

هنا التقينا هنا جادت قرائحنا
هنا تأخت كازهار عواطفنا
يا دوحة الطب يا حبي وعاطفتي
فالفرح والحزن في اعماقنا مزجا