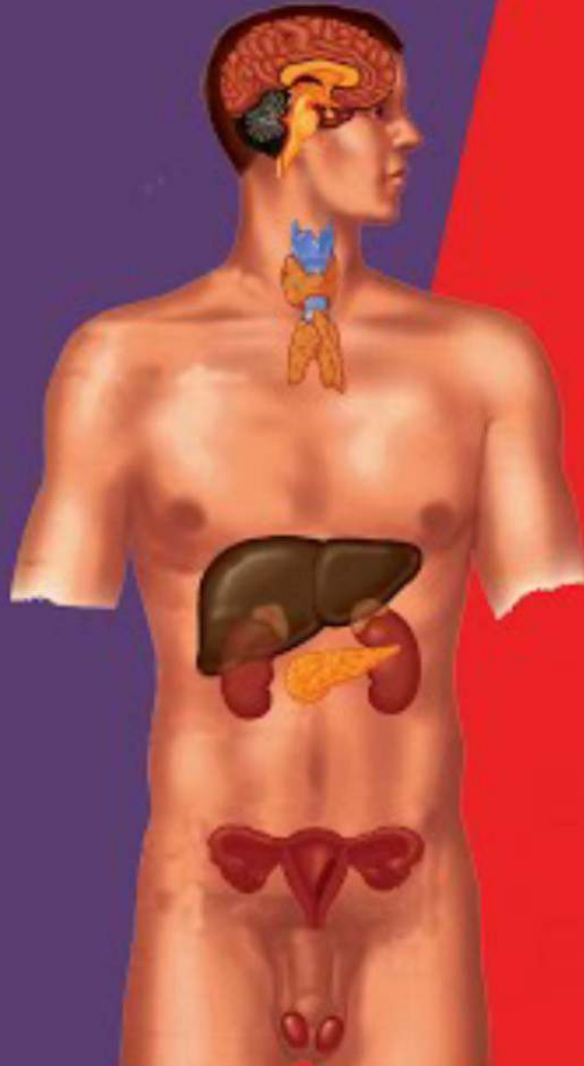


Endocrine System



4

Suprarenal Gland

Suprarenal Gland

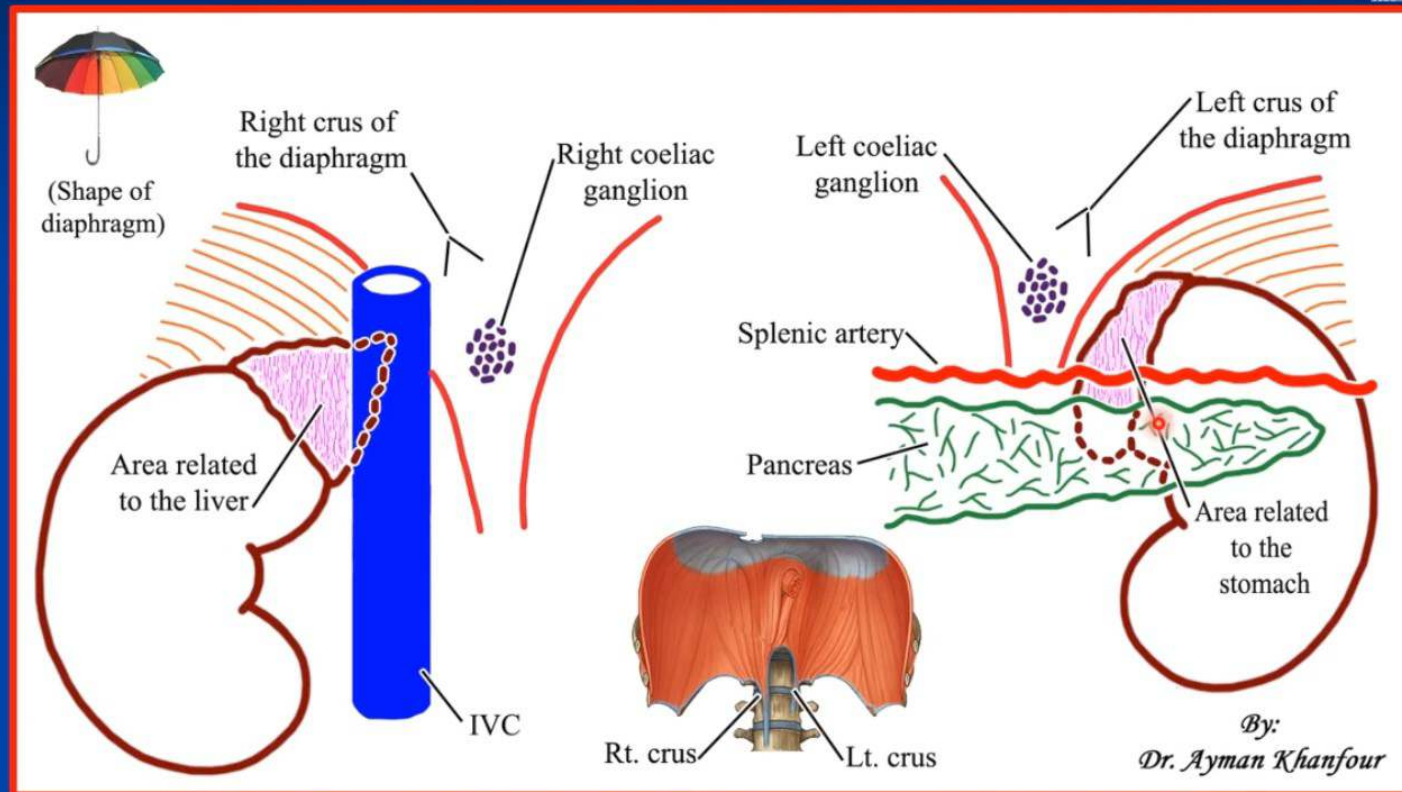
- ✓ Anatomy of the suprarenal gland
- ✓ Development of suprarenal gland



Anatomy of Suprarenal Gland



Site



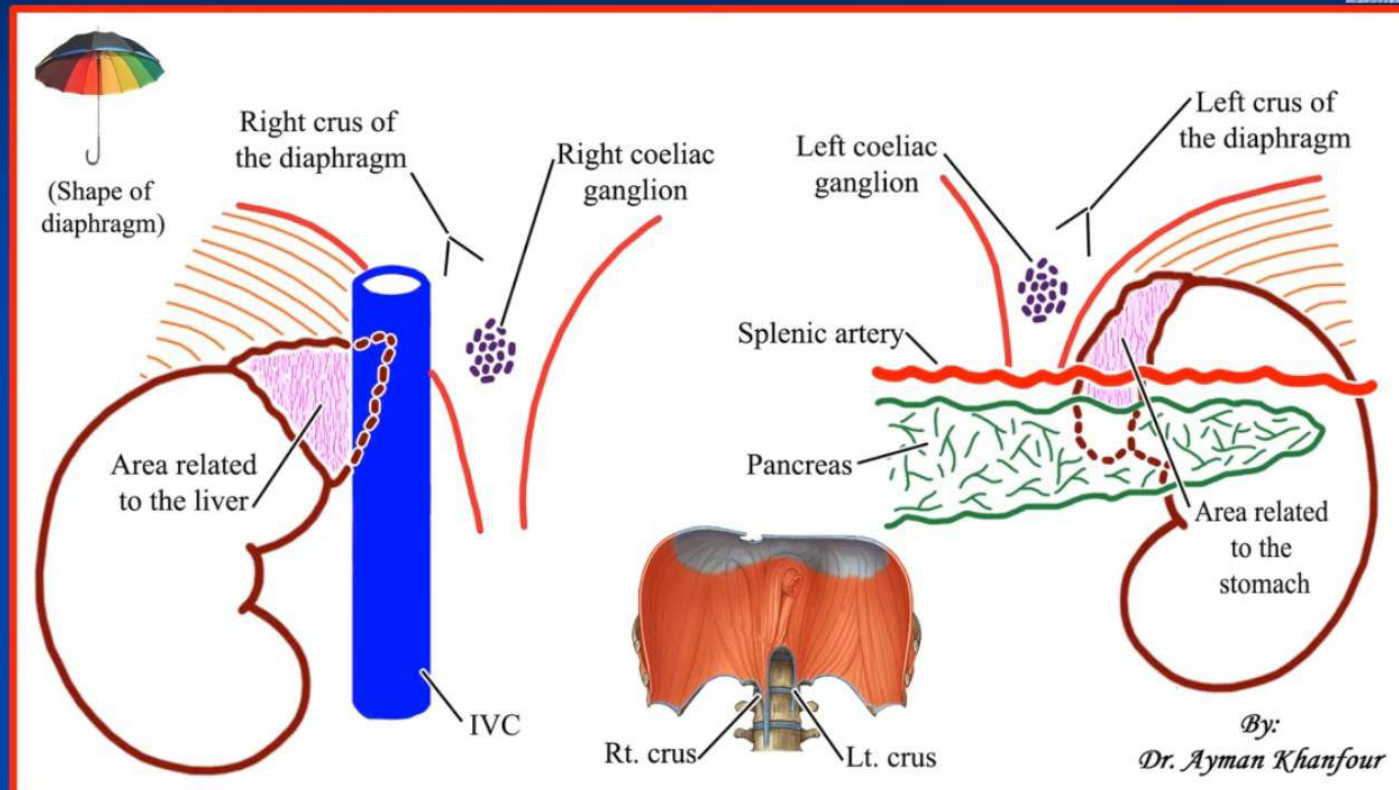
Right Suprarenal Gland

- It lies at the upper pole and adjacent part of the medial border of the right kidney.

Left Suprarenal Gland

- It lies at the upper pole and adjacent part of the medial border.

Shape

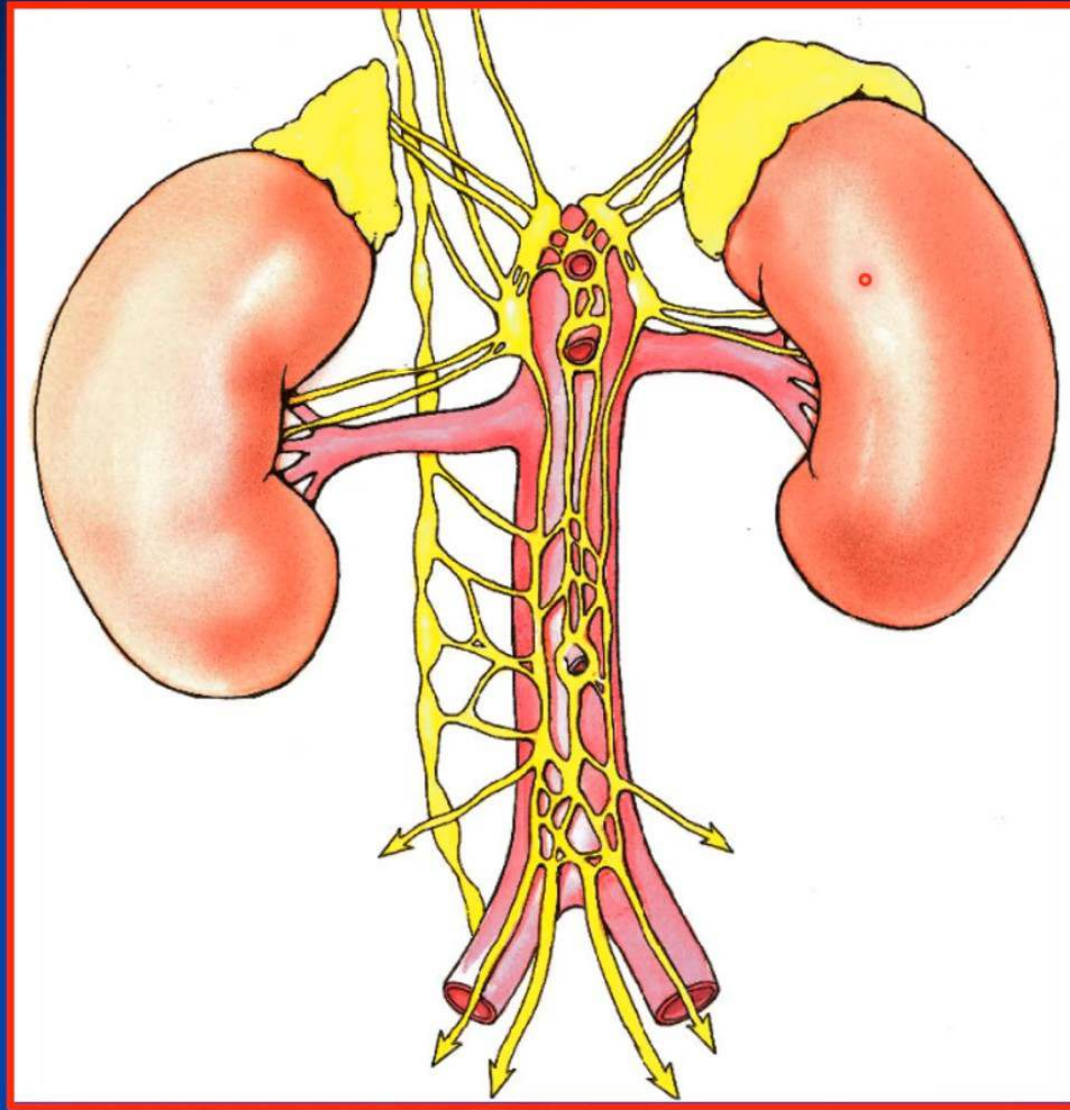


Right Suprarenal Gland

- Triangular. 

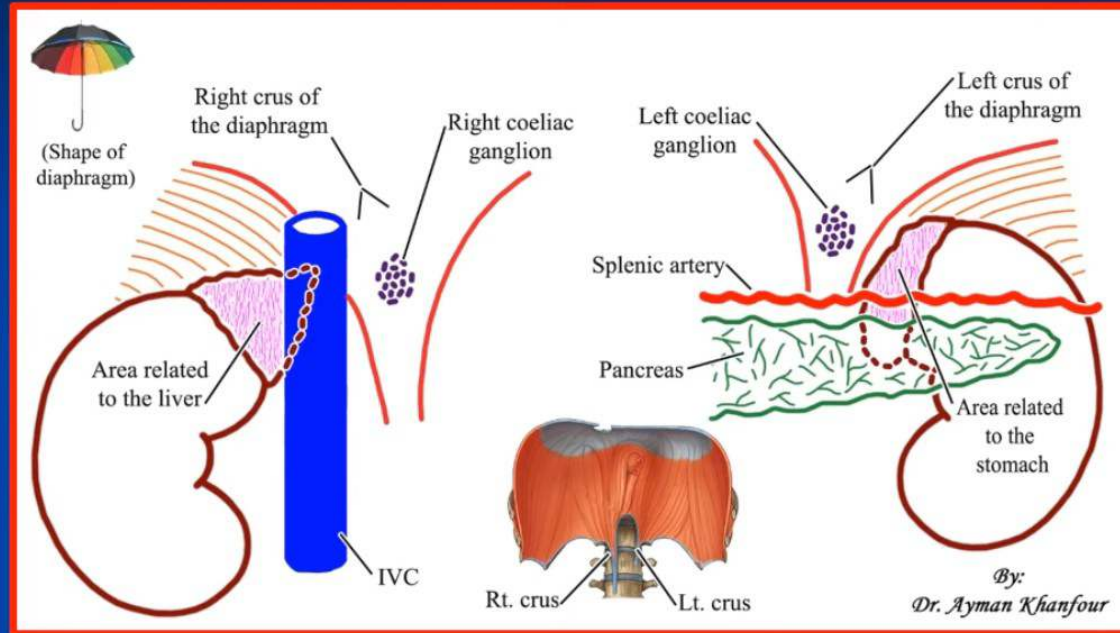
Left Suprarenal Gland

- Semilunar. 

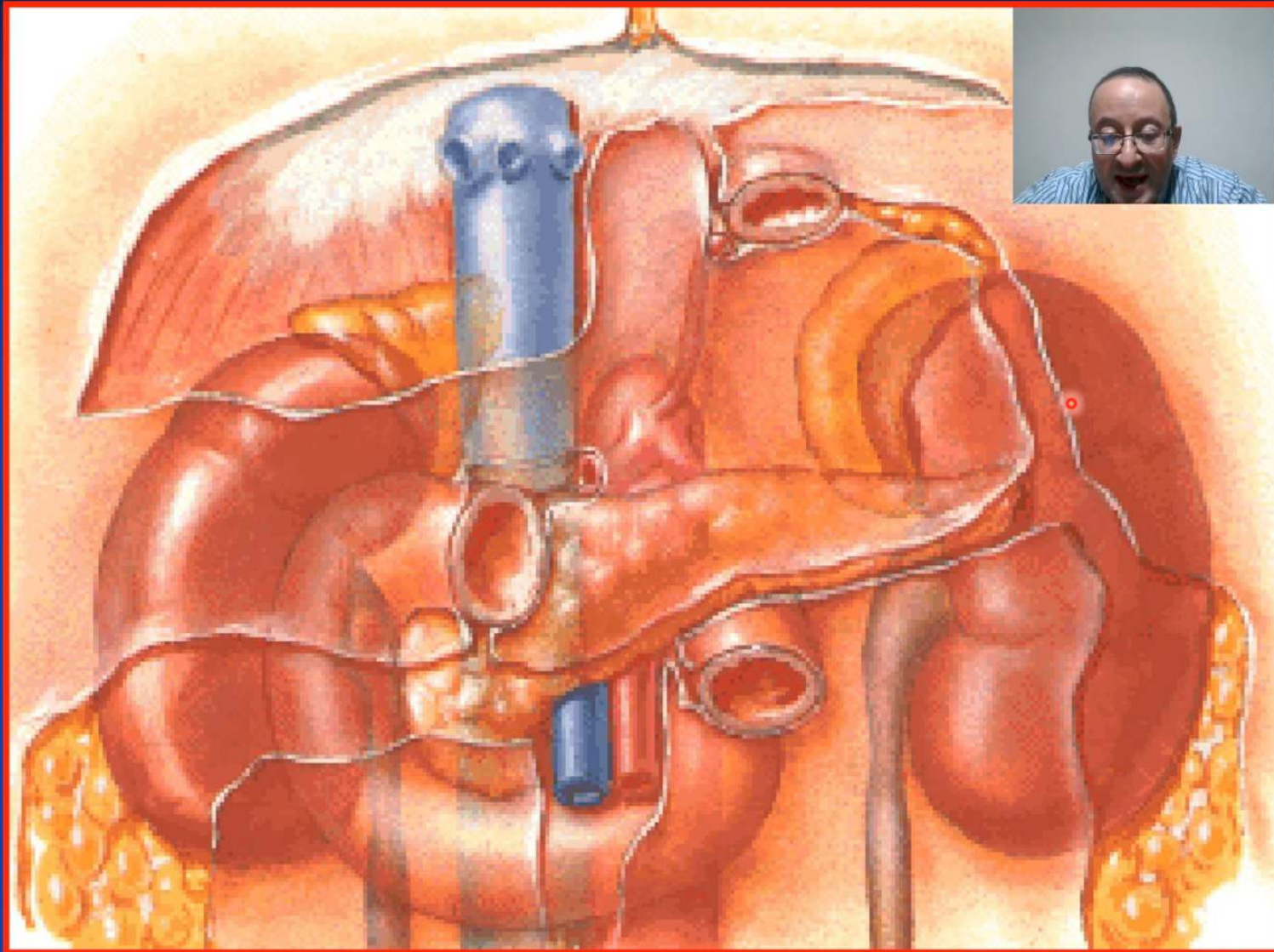


(Site and shape of the suprarenal gland – Anterior view)

Relations

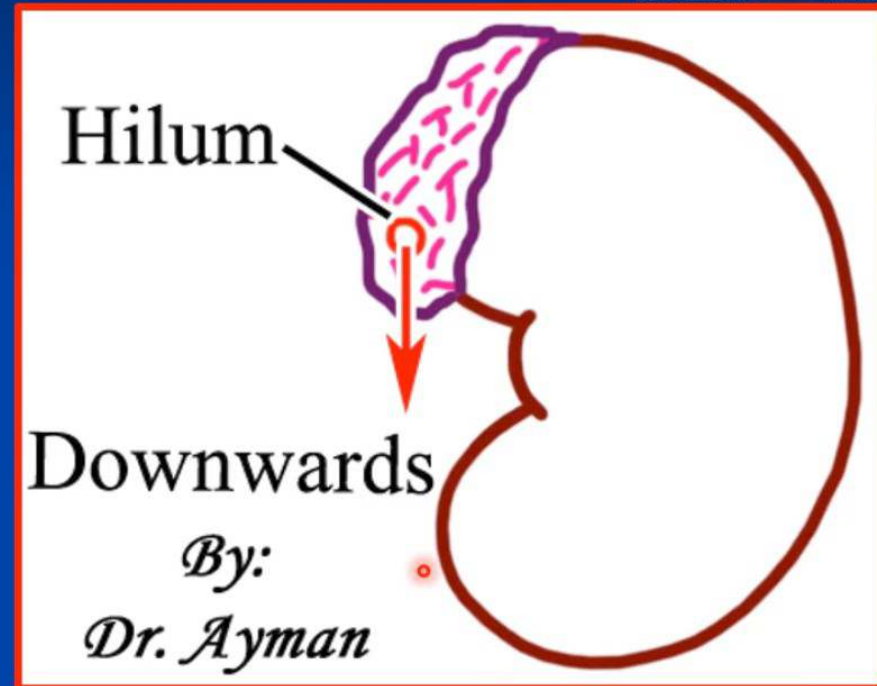
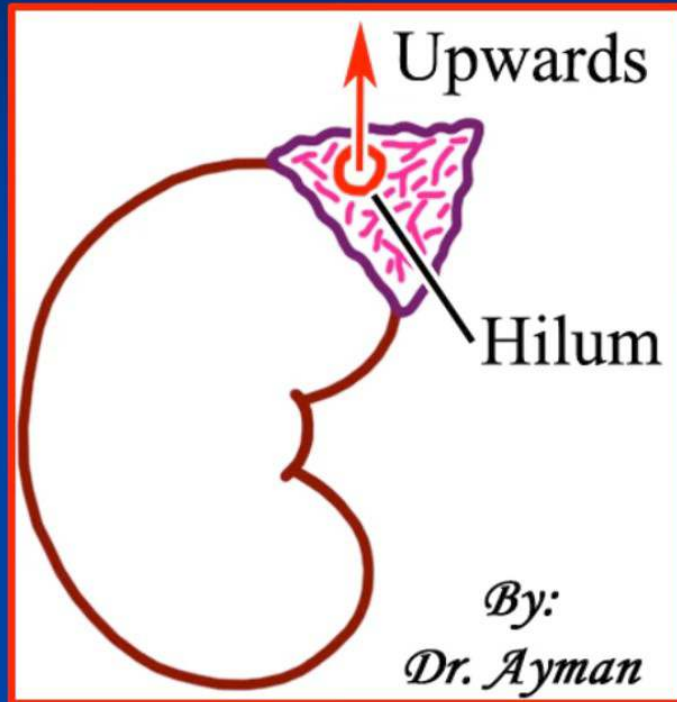


	Right Suprarenal Gland	Left Suprarenal Gland
- Anterior	- Partially covered by peritoneum and related to: a. Liver (including the bare area). b. IVC.	- Covered by peritoneum and forms a part of the <i>stomach bed</i> . - The lower part is directly related to the splenic vessels and the body of the pancreas.
- Posterior	- Diaphragm.	- Diaphragm.
- Posteroinf.	- Right kidney.	- Left kidney.
- Medial	- Right coeliac ganglion.	- Left coeliac ganglion.



(Relations of the suprarenal gland – Anterior view)

Hilum



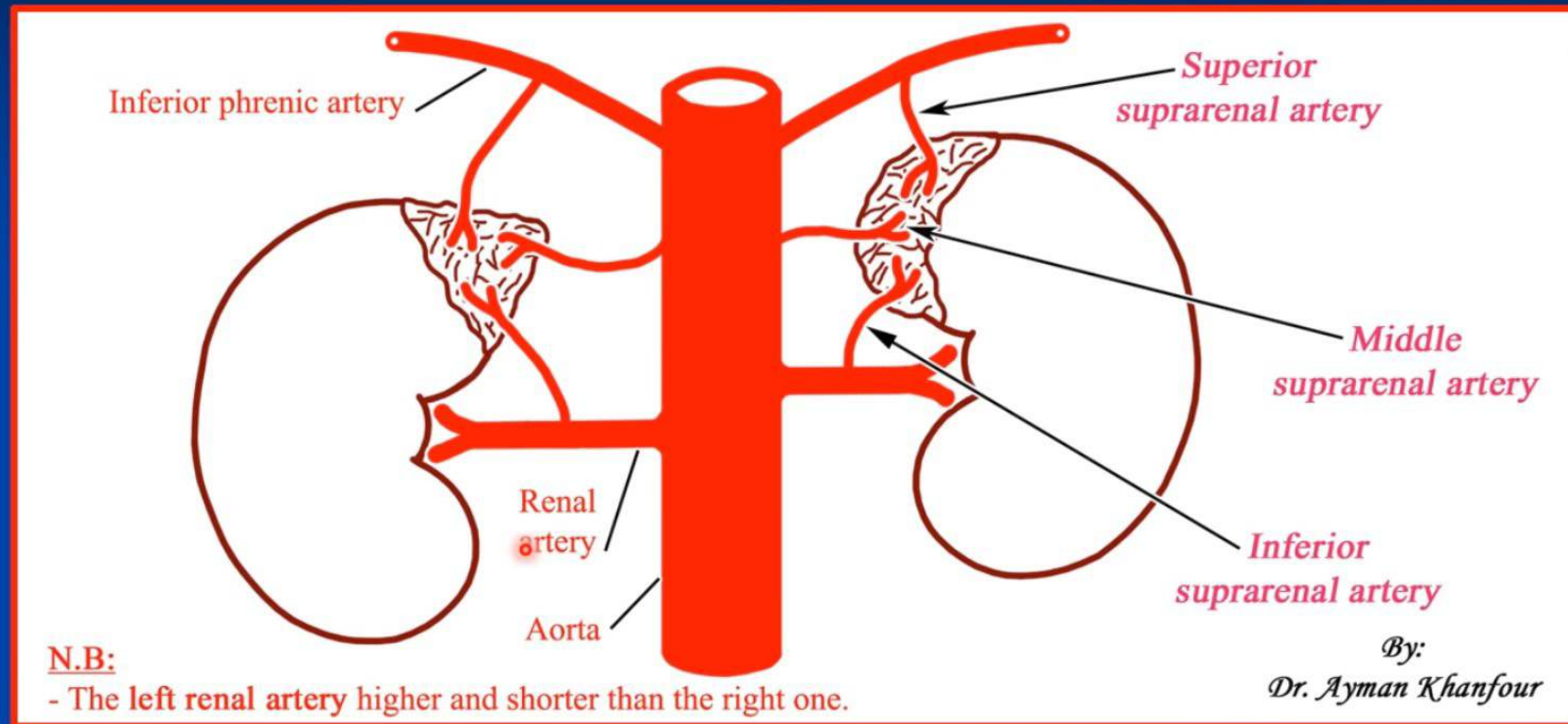
Right Suprarenal Gland

- Directed upwards.

Left Suprarenal Gland

- Directed downwards.

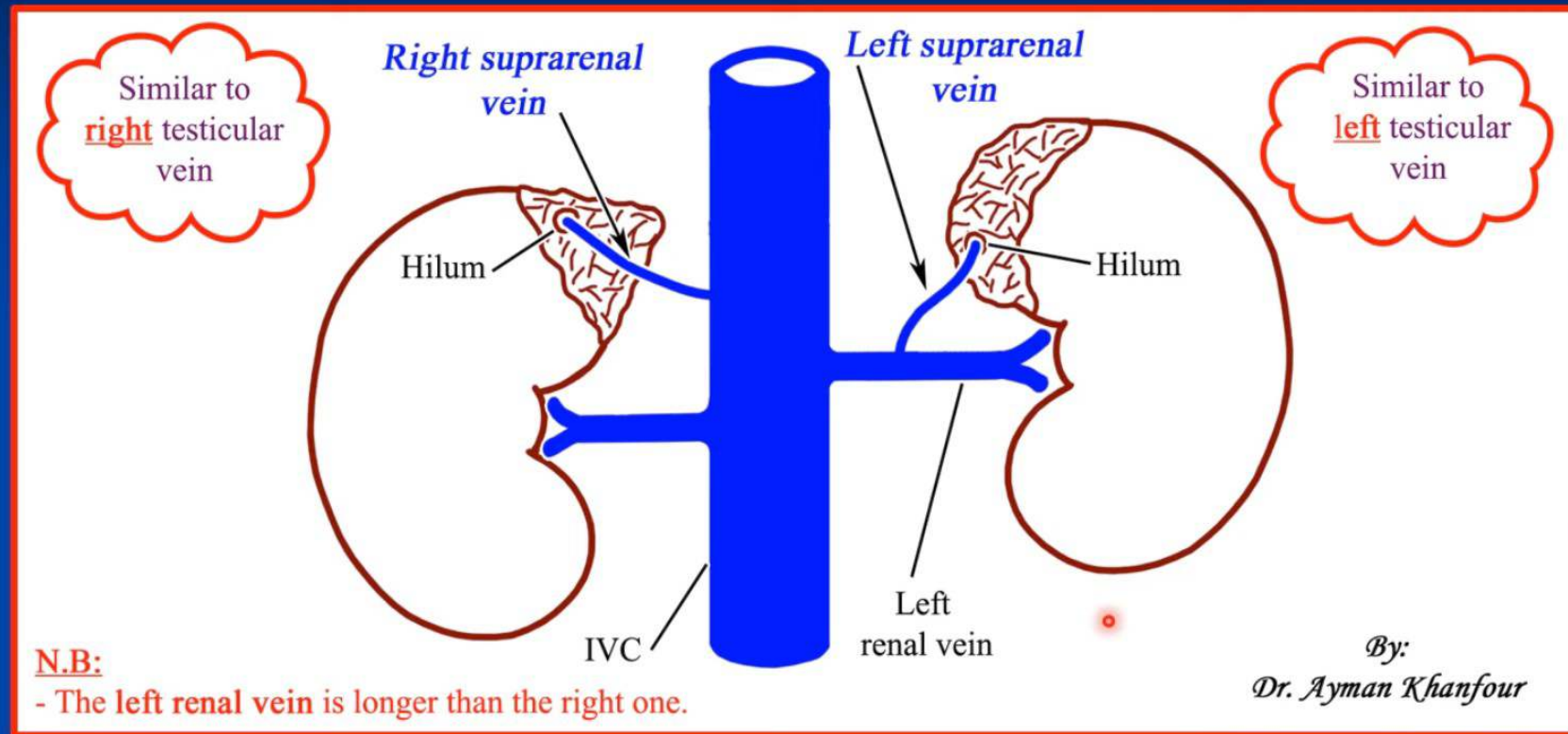
Arterial Supply



- ❑ Each gland is supplied by “three” arteries which are: 🙋
1. Superior suprarenal artery (from the inferior phrenic artery).
 2. Middle suprarenal artery (from the abdominal aorta).
 3. Inferior suprarenal artery (from the renal artery).



Venous Drainage

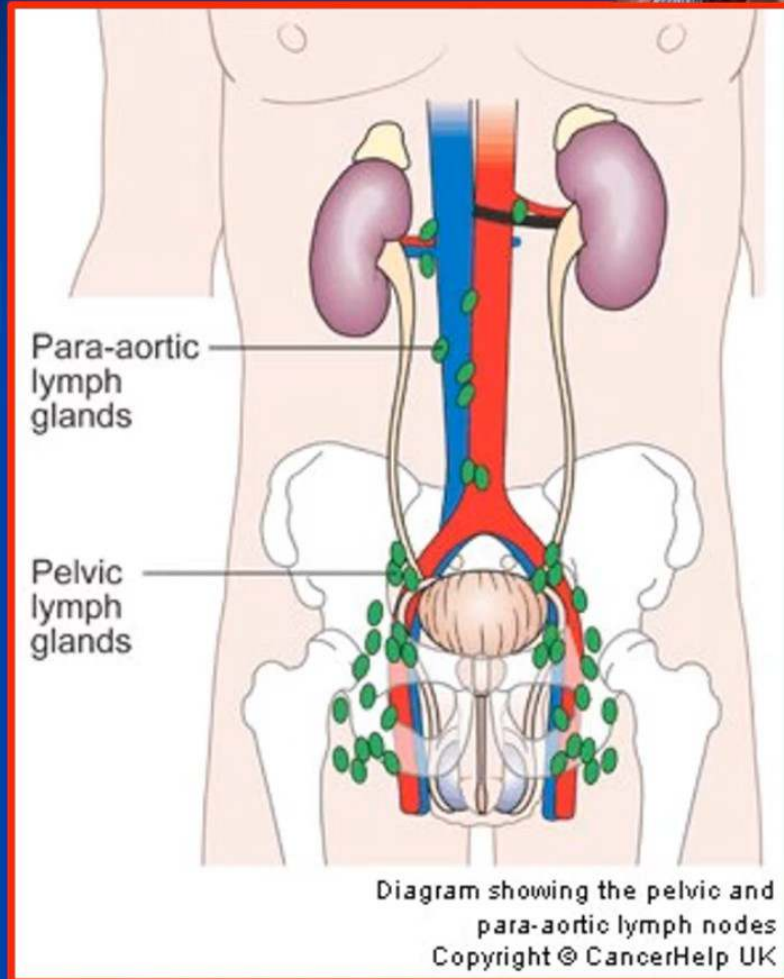
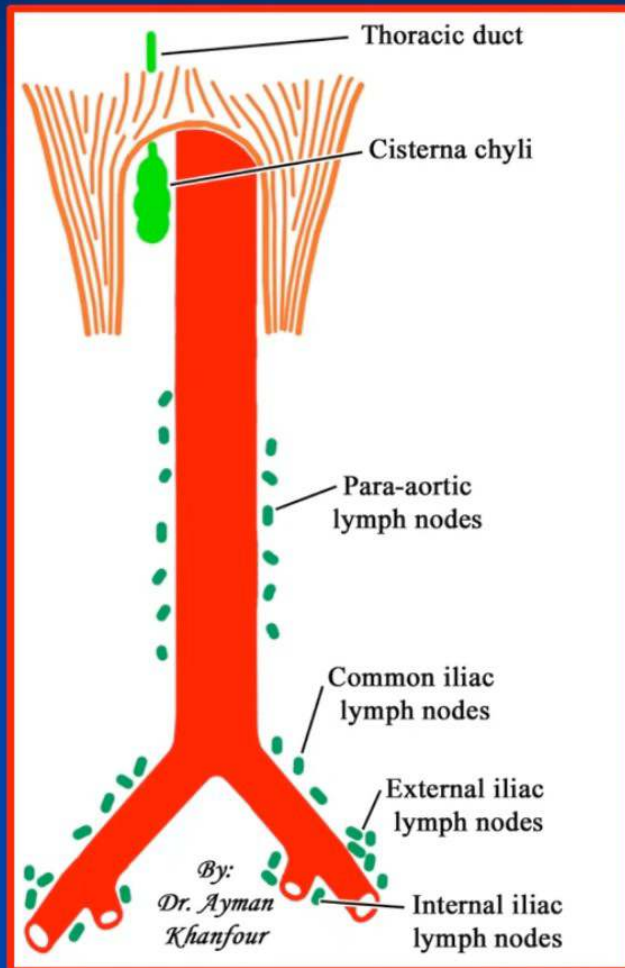


❑ Each gland is drained by a “single” vein which arises from the hilum. 📖

- The right suprarenal vein drains into the IVC.
- The left suprarenal vein drains into the left renal vein.



Lymphatic Drainage

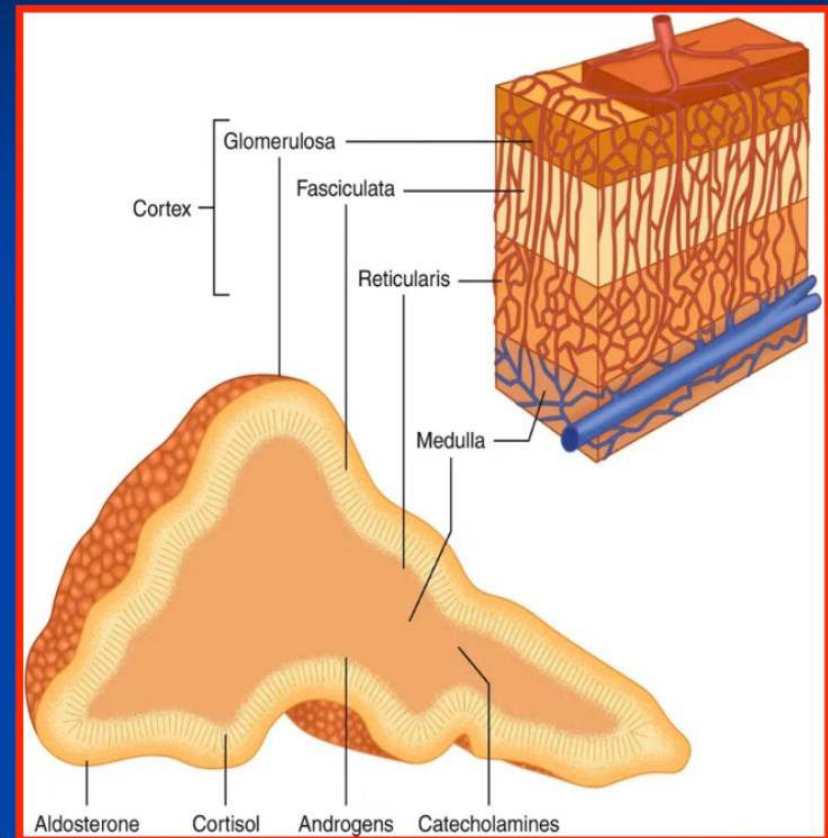
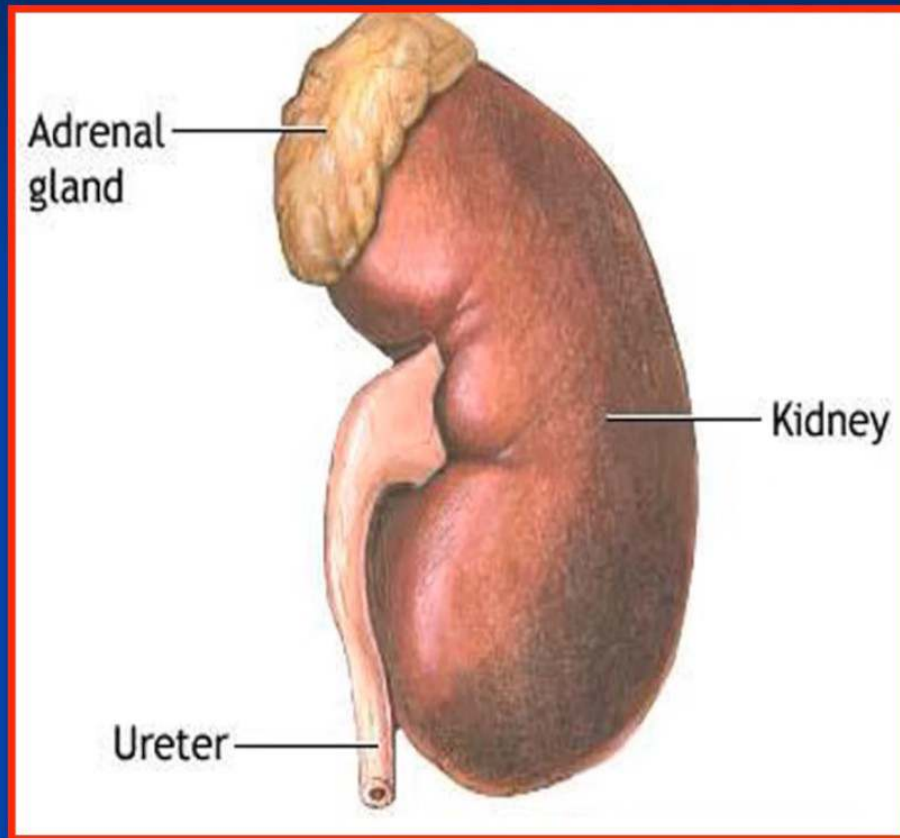


□ Into the para-aortic lymph nodes.

Development of Suprarenal Gland



Embryological Origin

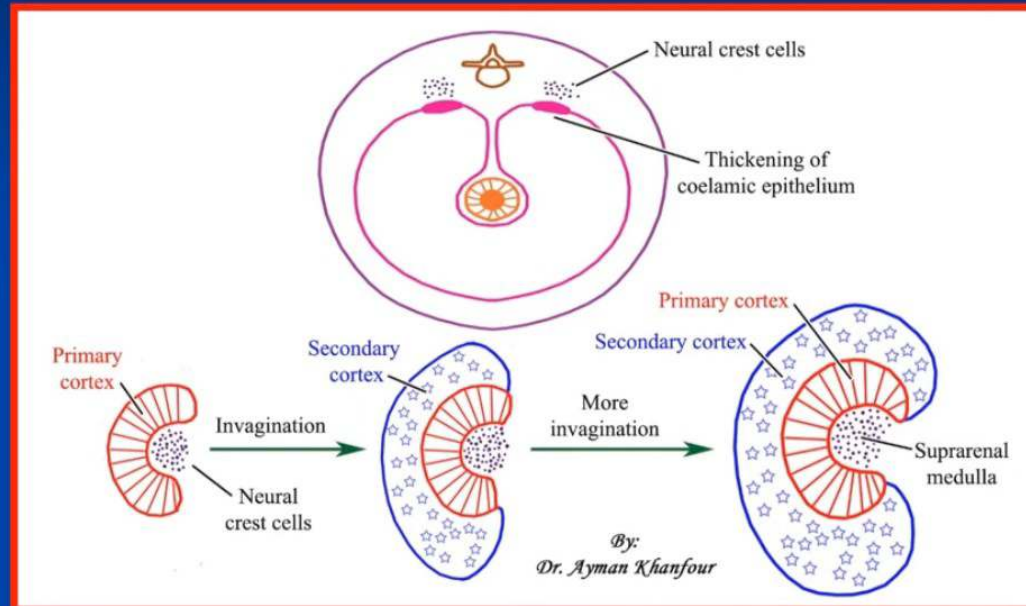


- a. Suprarenal cortex:** Meseodermal (Coelomic epithelium)
- b. Suprarenal medulla:** Neuroectoderm (Neural crest cells)



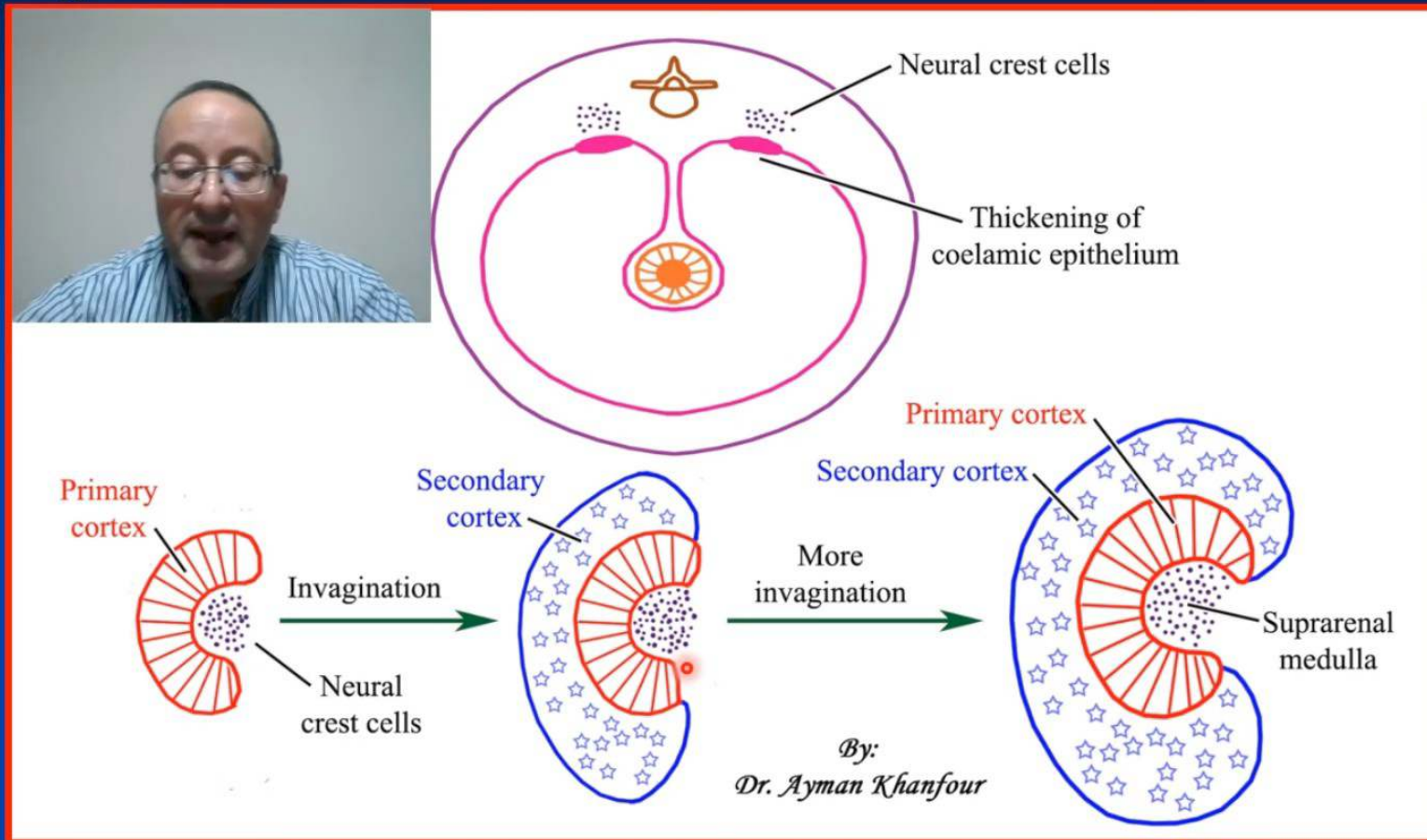
Development

a. Suprarenal cortex

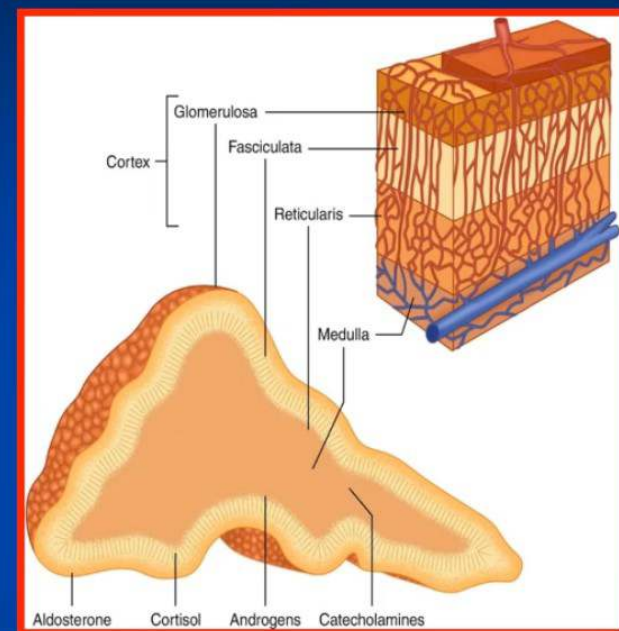
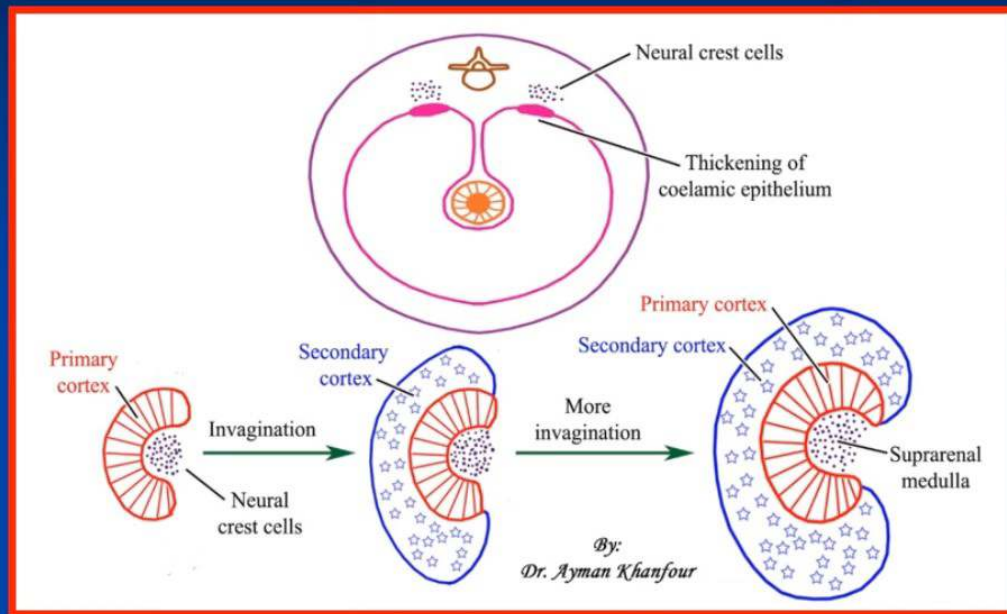


- ❑ It develops from the thickening of the coelomic epithelium covering posterior abdominal wall (between the dorsal mesentery and mesonephric ridge).
- ❑ Proliferation of these cells forms the “primary cortex” (fetal cortex) which is invaginated by the medulla).
- ❑ Another layer of proliferation of coelomic epithelium forms the “secondary cortex” (which lies outside the primary cortex).
- ❑ The surrounding mesenchyme gives capsule + fibrous tissue of the gland.

b. Suprarenal medulla



- ❑ It is developed from the **neural crest cells** (sympathetic ganglia) which migrates (moves) and invade the primary cortex.
- ❑ The neural crest cells are transformed into secretory cells of the suprarenal medulla.



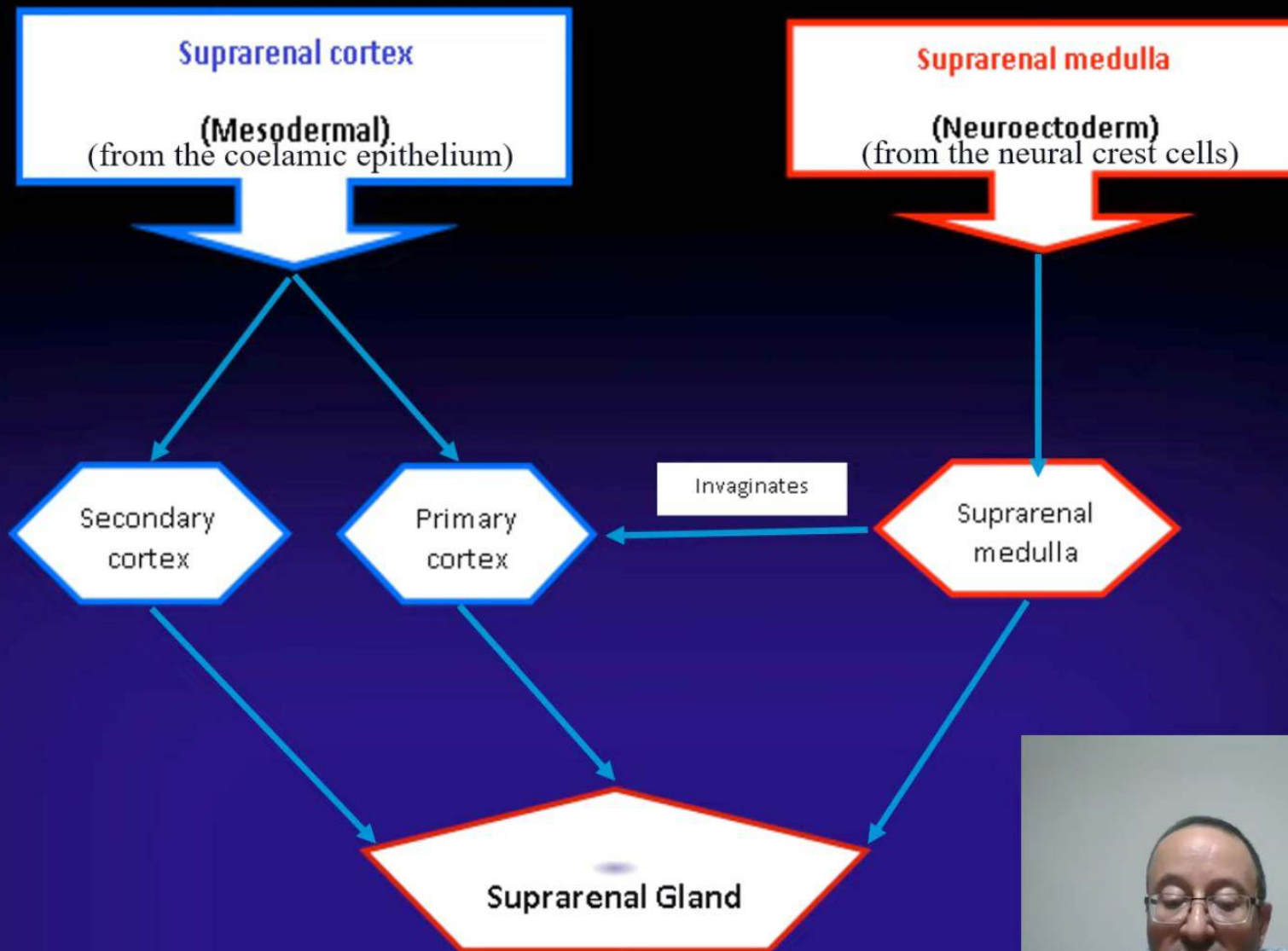
a. The primary (fetal) cortex (which is large at birth) decreases in size and degenerates at the end of the 1st year while the secondary cortex persists.

b. At the 4th year, the secondary cortex differentiates into: zona fasciculata and zona reticularis (from outside inwards)

b. The medulla is small at birth but increases in size during the

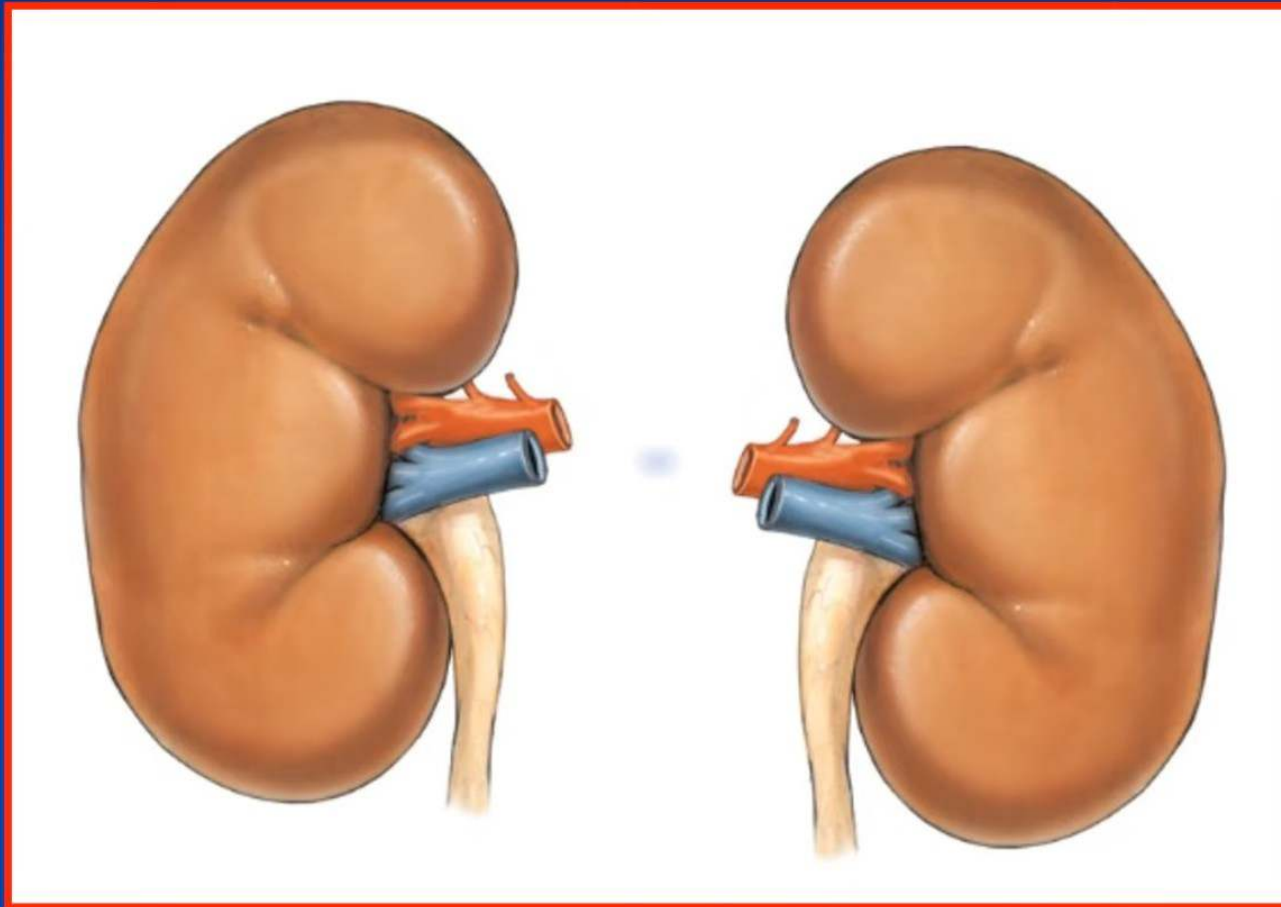


❖ Summary of development of suprarenal gland:

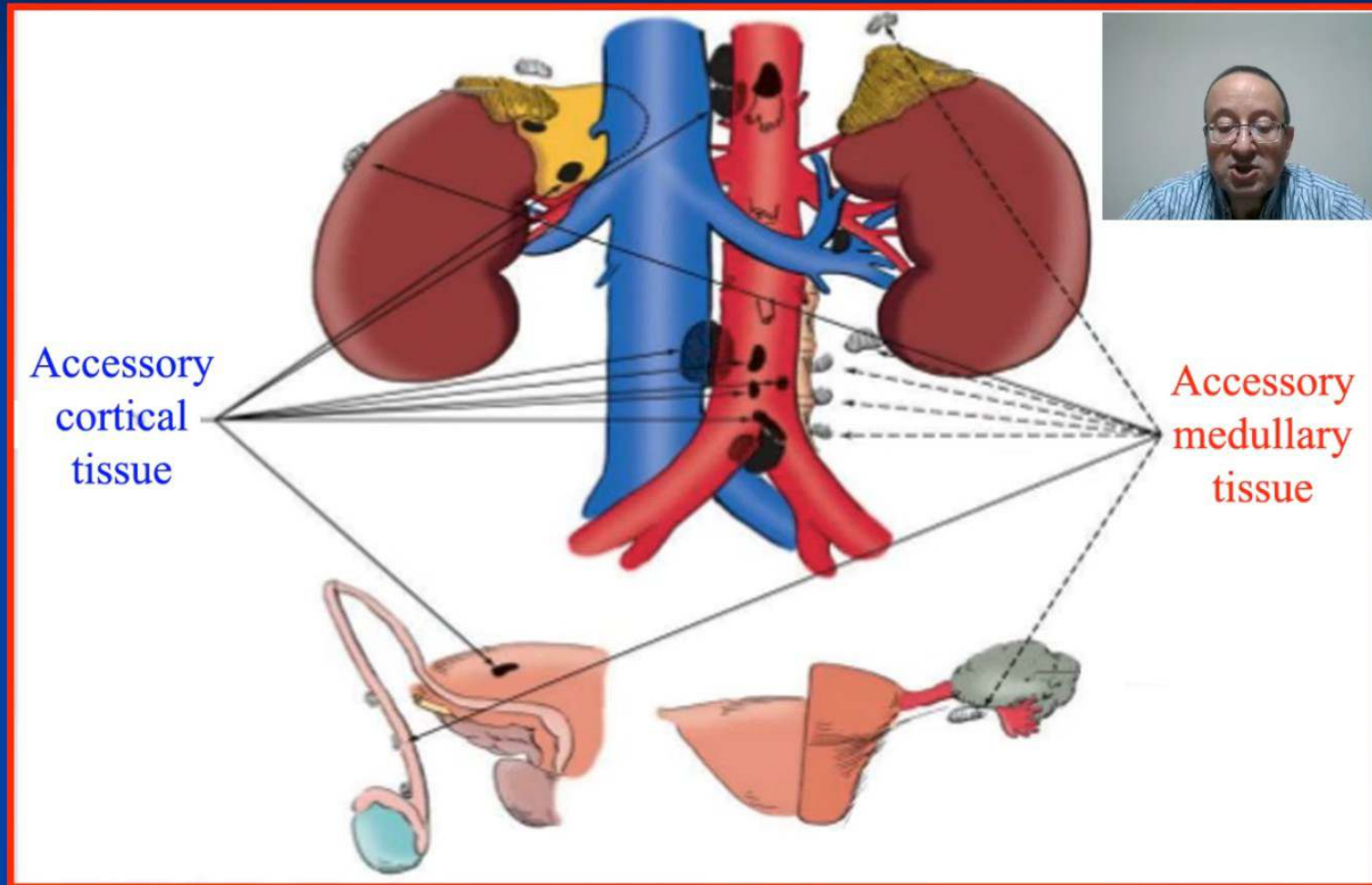


Congenital Abnormalities

1. Agenesis of the gland

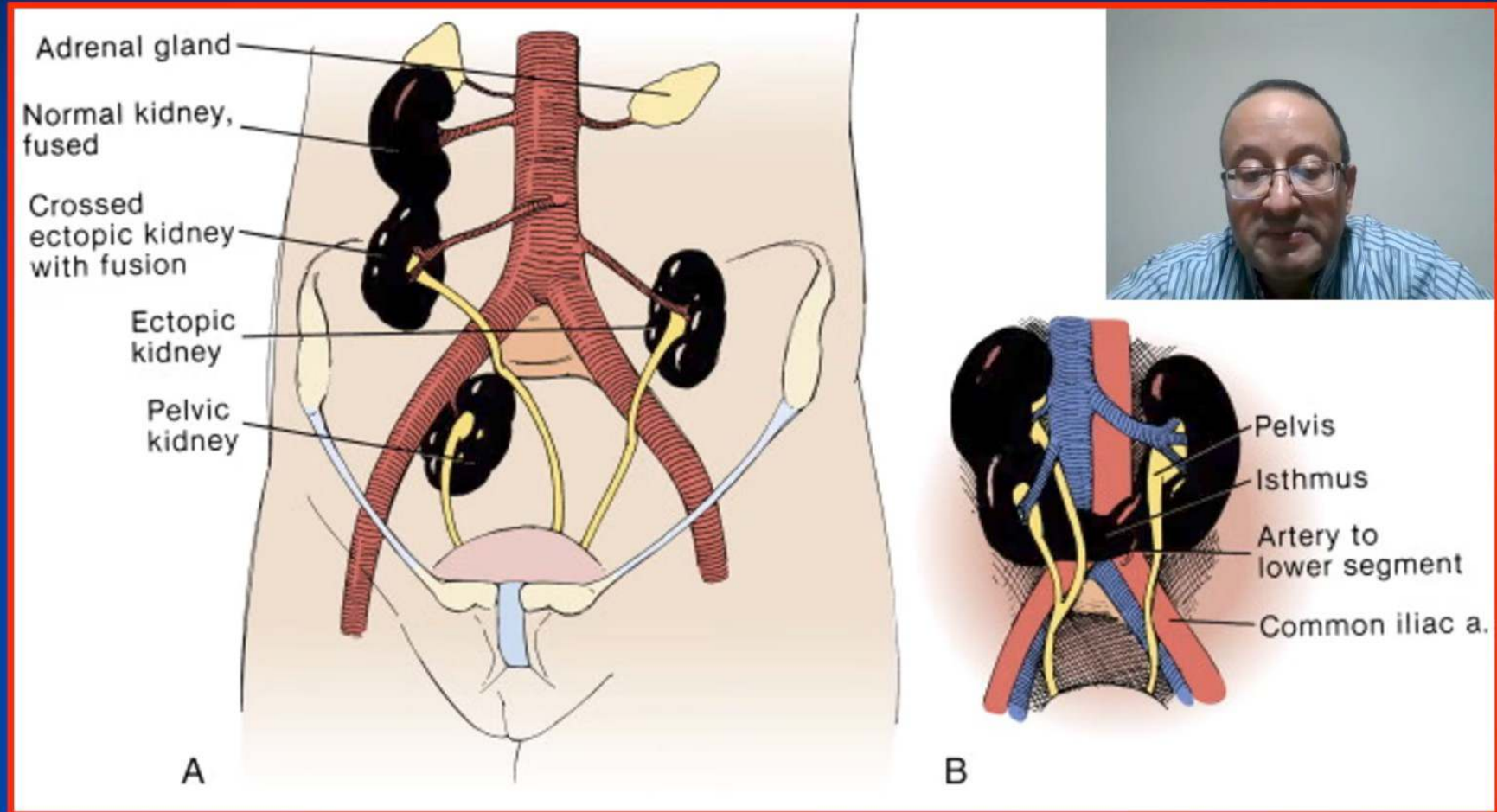


2. Accessory cortical tissue



- Some cortical tissue may be found around the suprarenal gland.

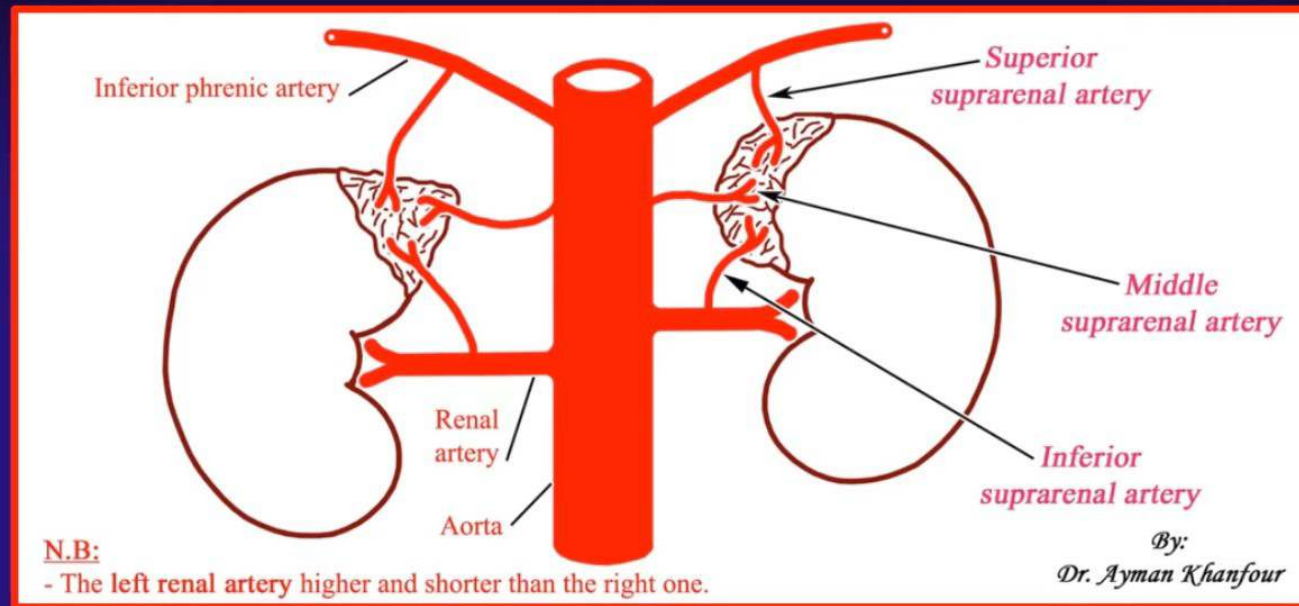
4. Ectopic suprarenal gland



- It may be found deep to the capsule of the thyroid gland.

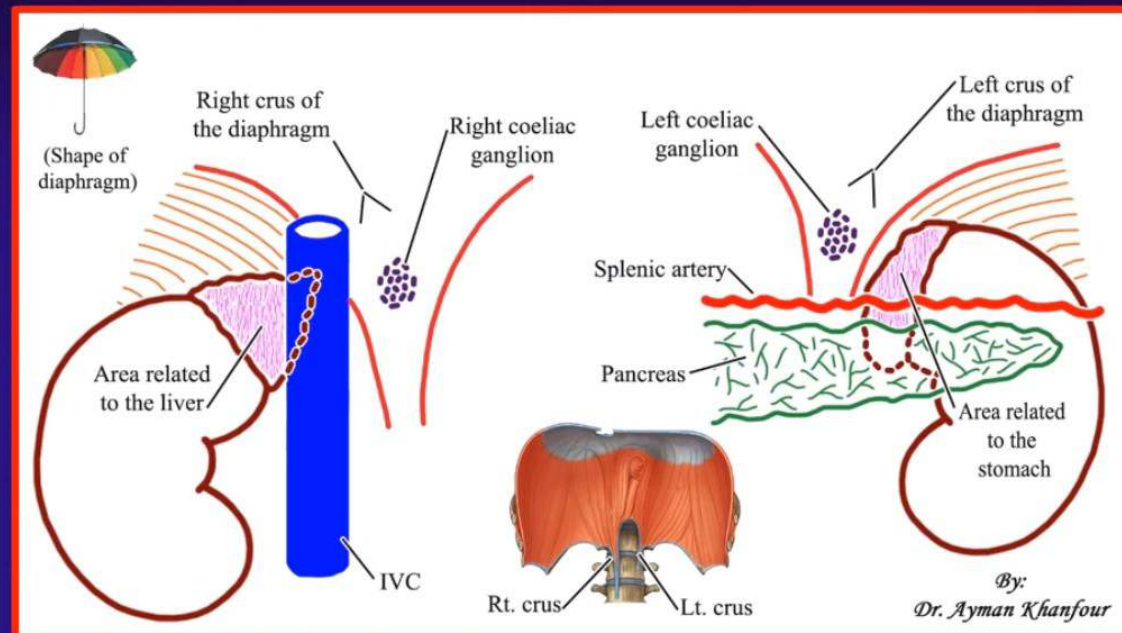
❑ What is the origin of the middle suprarenal artery?

- a. Abdominal aorta.
- b. Splenic artery.
- c. Renal artery.
- d. Inferior phrenic artery.



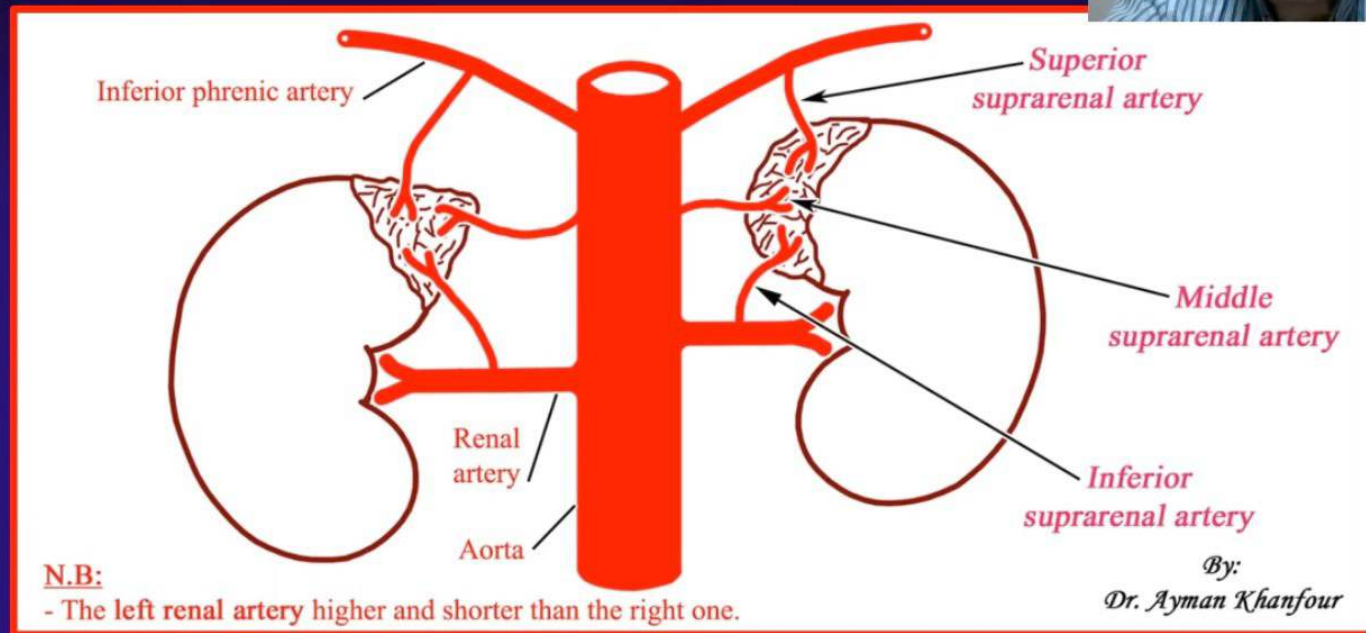
❑ Which of the following is an anterior relation to right suprarenal gland?

- a. Splenic artery
- b. Stomach
- c. IVC
- d. Pancreas



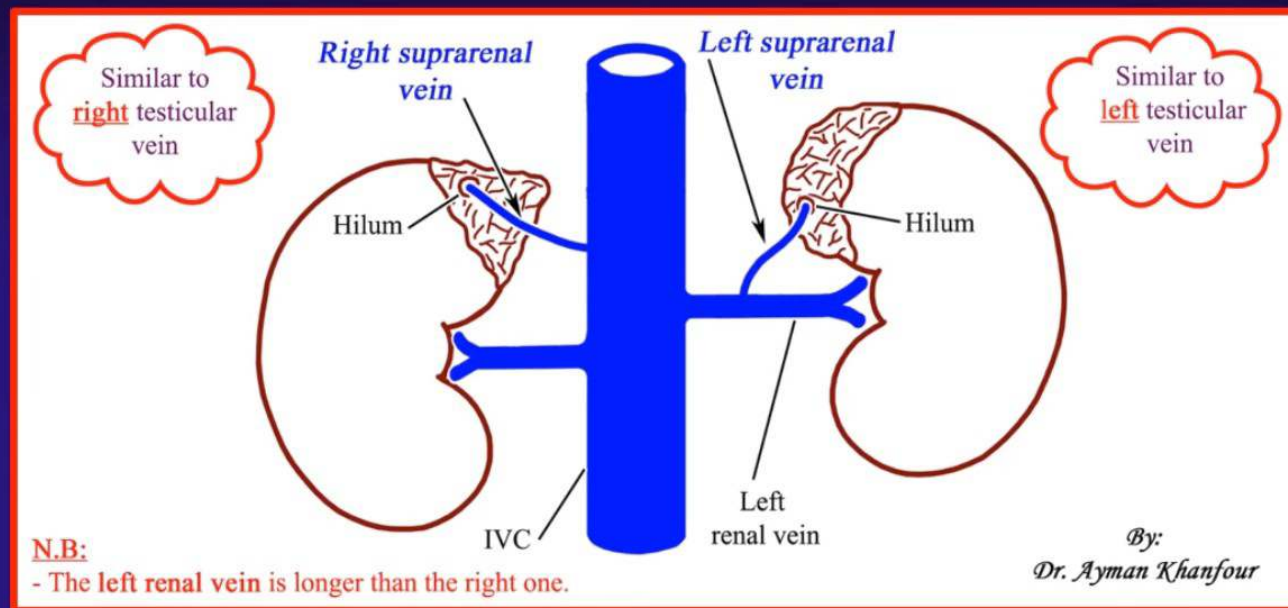
❑ The suprarenal gland receives its arterial supply from which of the following:

- a. Aorta, inferior phrenic and renal arteries.
- b. Lumbar arteries.
- c. Superior phrenic artery.
- d. Testicular (ovarian) artery.



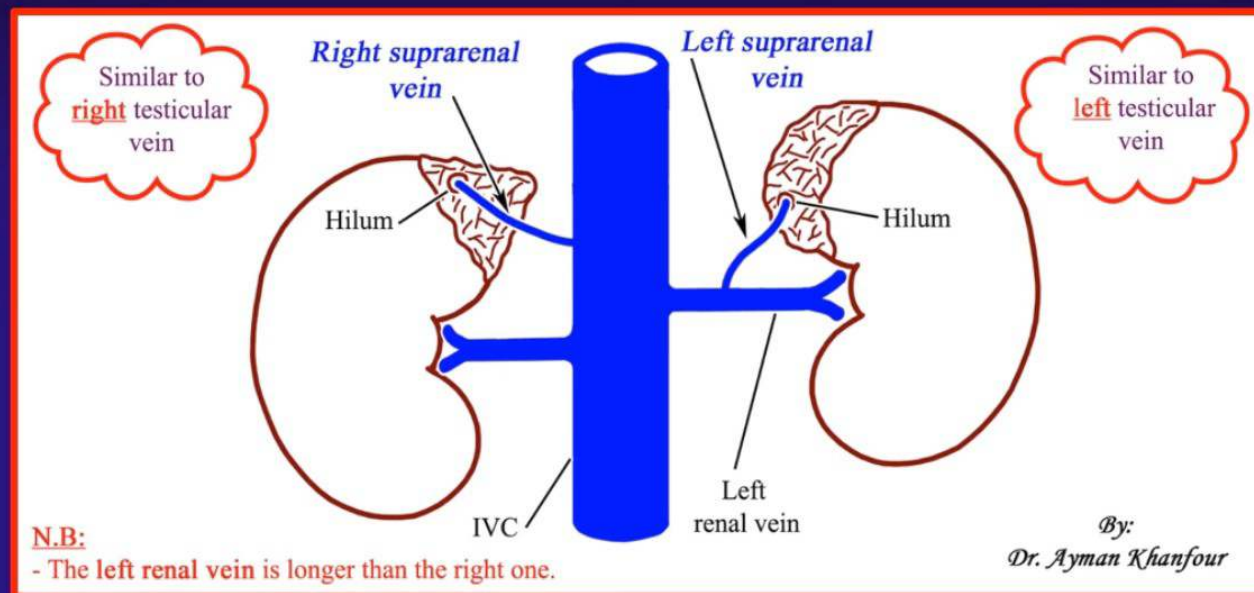
❑ The suprarenal gland drains its venous blood through which of the following:

- a. Three suprarenal veins.
- b. Two suprarenal veins.
- c. One suprarenal veins.
- d. Multiple suprarenal veins.



❑ The right suprarenal vein drains into which of the following?

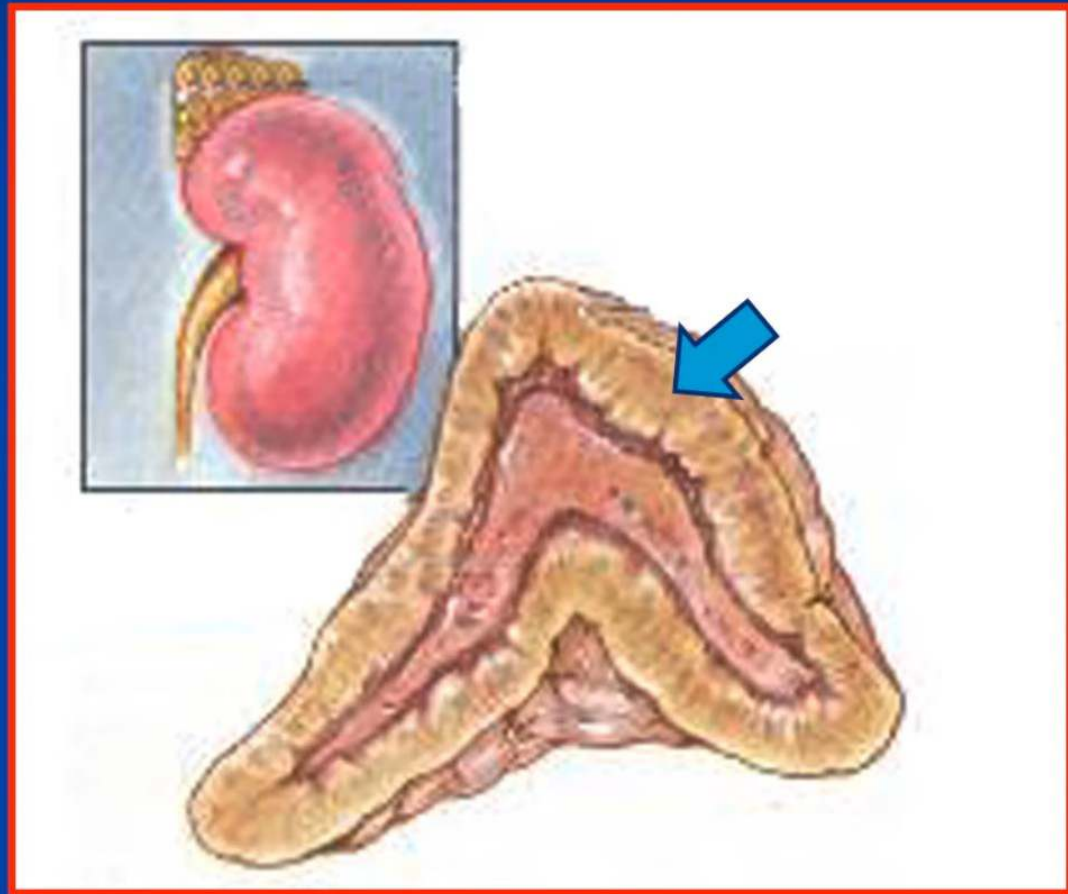
- a. IVC.
- b. Right renal vein.
- c. Portal vein.
- d. Superior mesenteric vein.



❖ Identify the pointed structure?

❑ Answer:

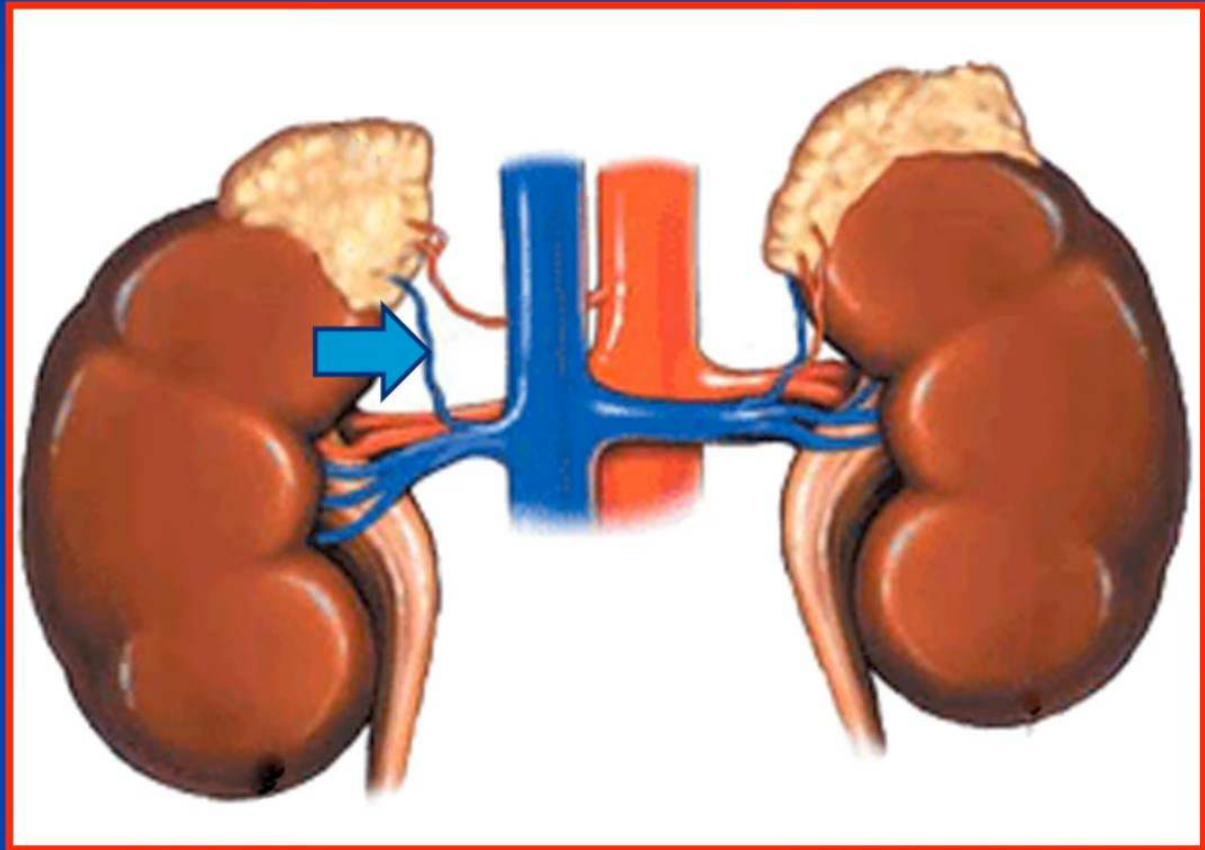
- Suprarenal cortex



❖ Identify the pointed structure?

□ Answer:

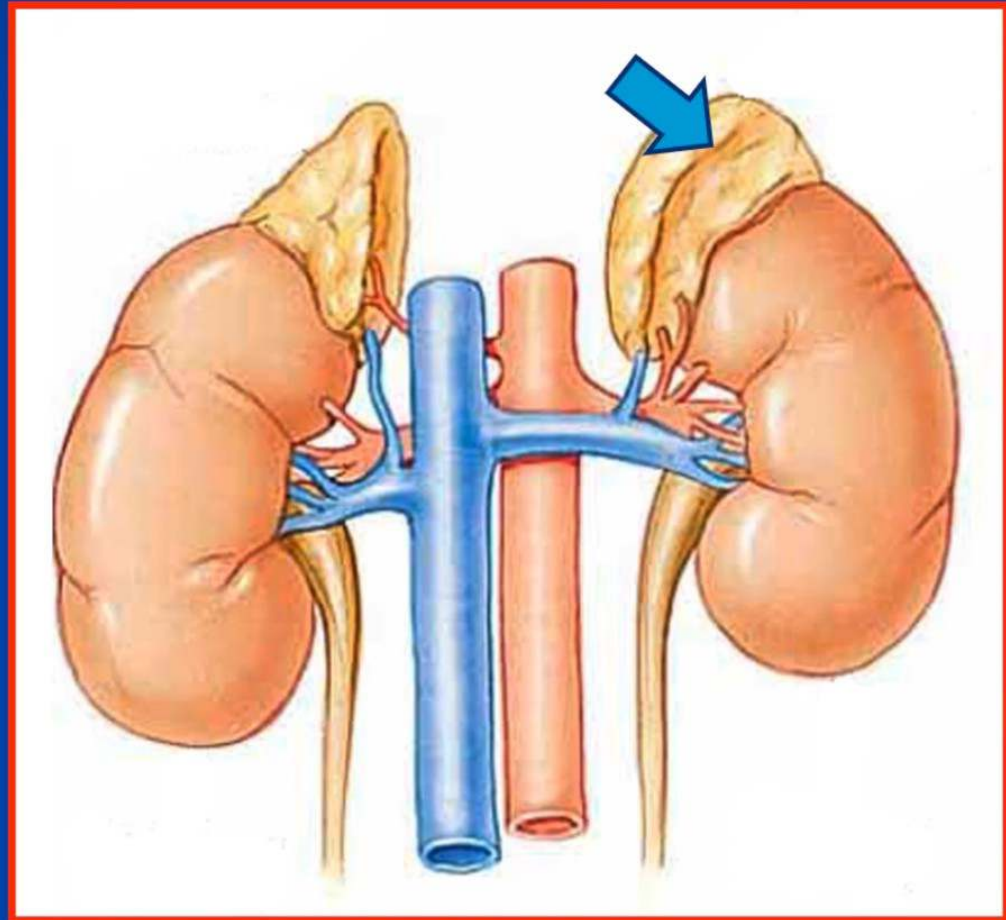
- Suprarenal vein



❖ Identify the pointed structure?

□ Answer:

- Left suprarenal gland



Question 1

Immediately after delivery of the fetus, the doctor has to hold the baby upside down and strike over his buttocks to stimulate crying and breath of the baby, why the doctor is instructed not to strike over the back of the baby?





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هل ج



Immediately after delivery of the fetus, the doctor has to hold the baby upside down and strike over his buttocks to stimulate crying and breath of the baby, why the doctor is instructed not to strike over the back of the baby?



29,562 مشاهدة قبل سنتين 7a. Endocrine system (Lectures) ...المزيد

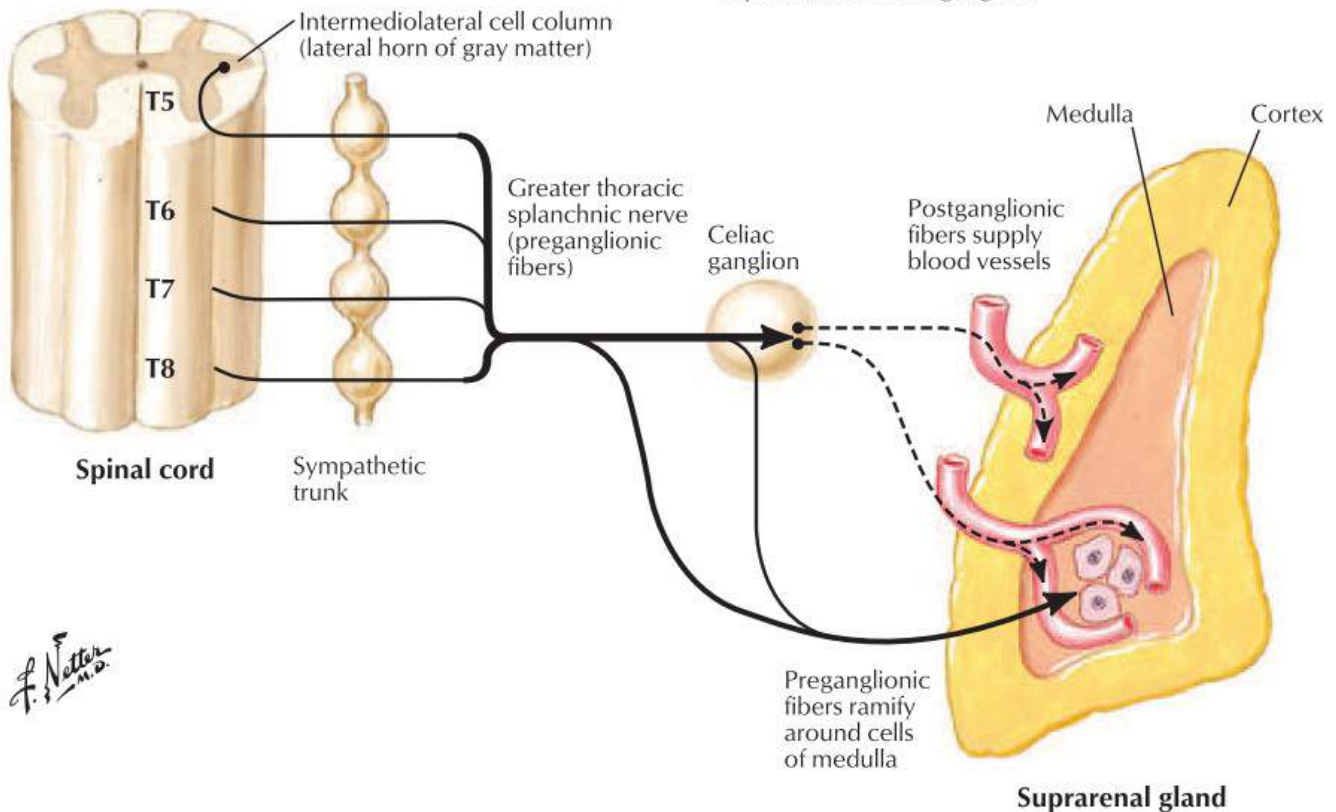
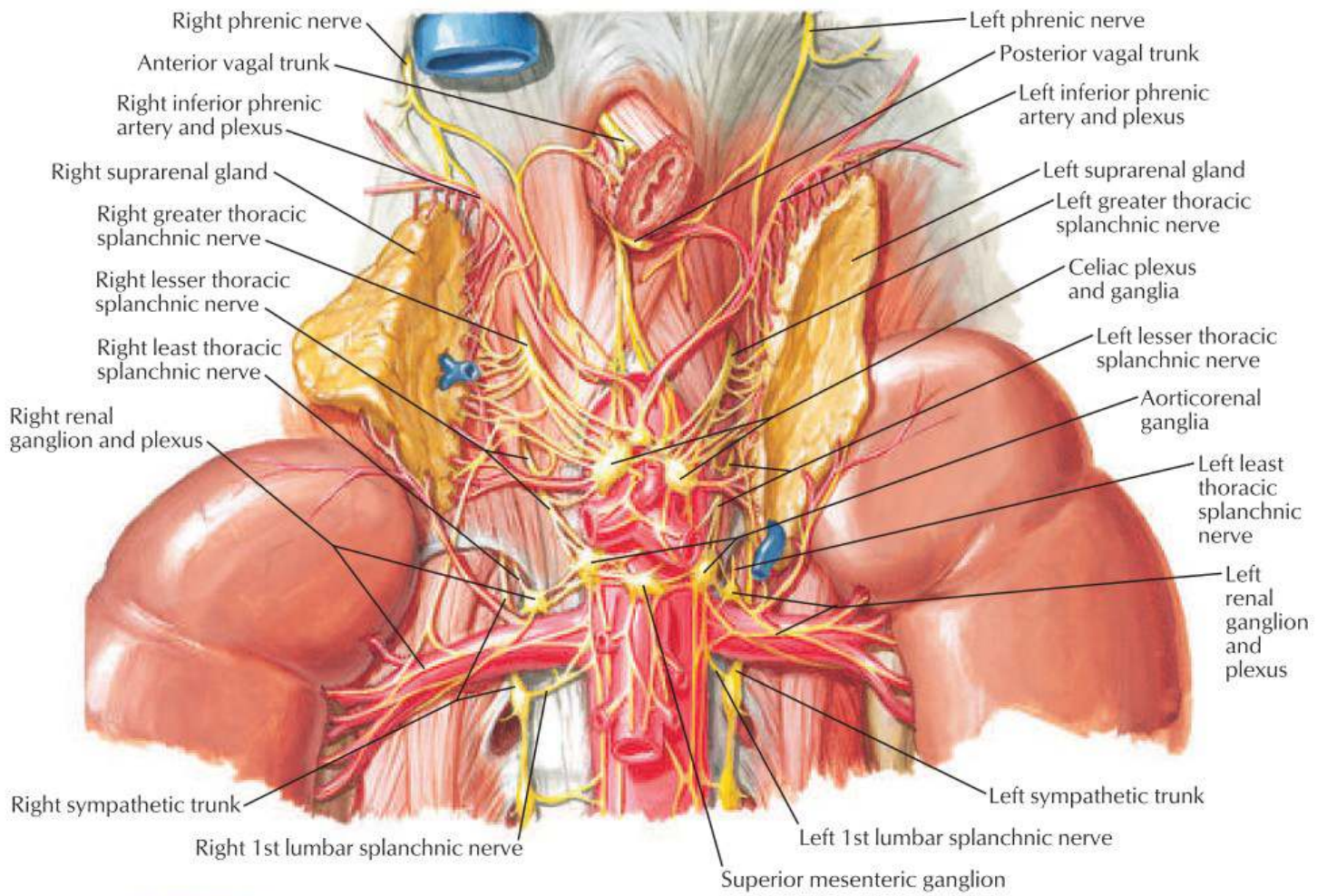


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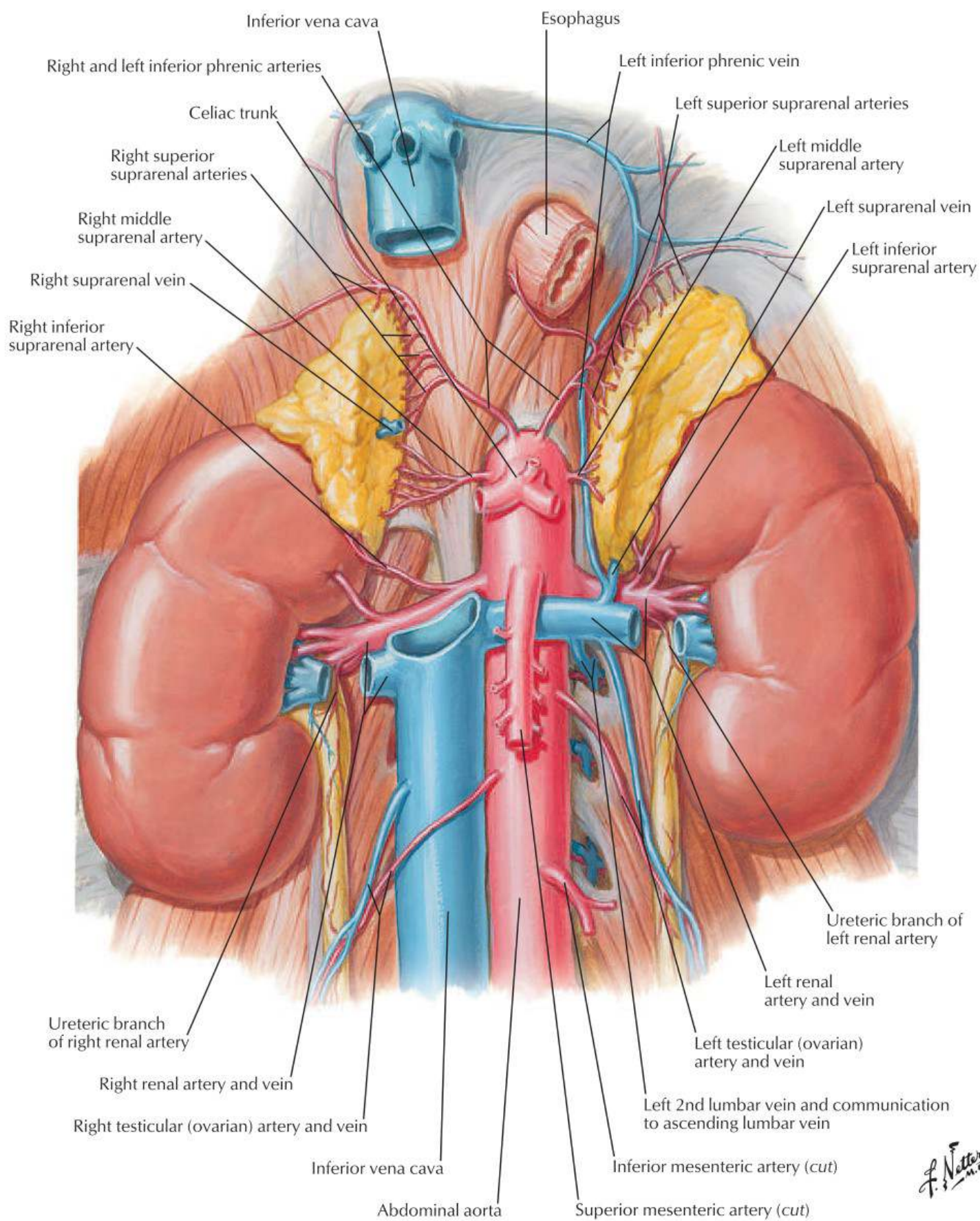
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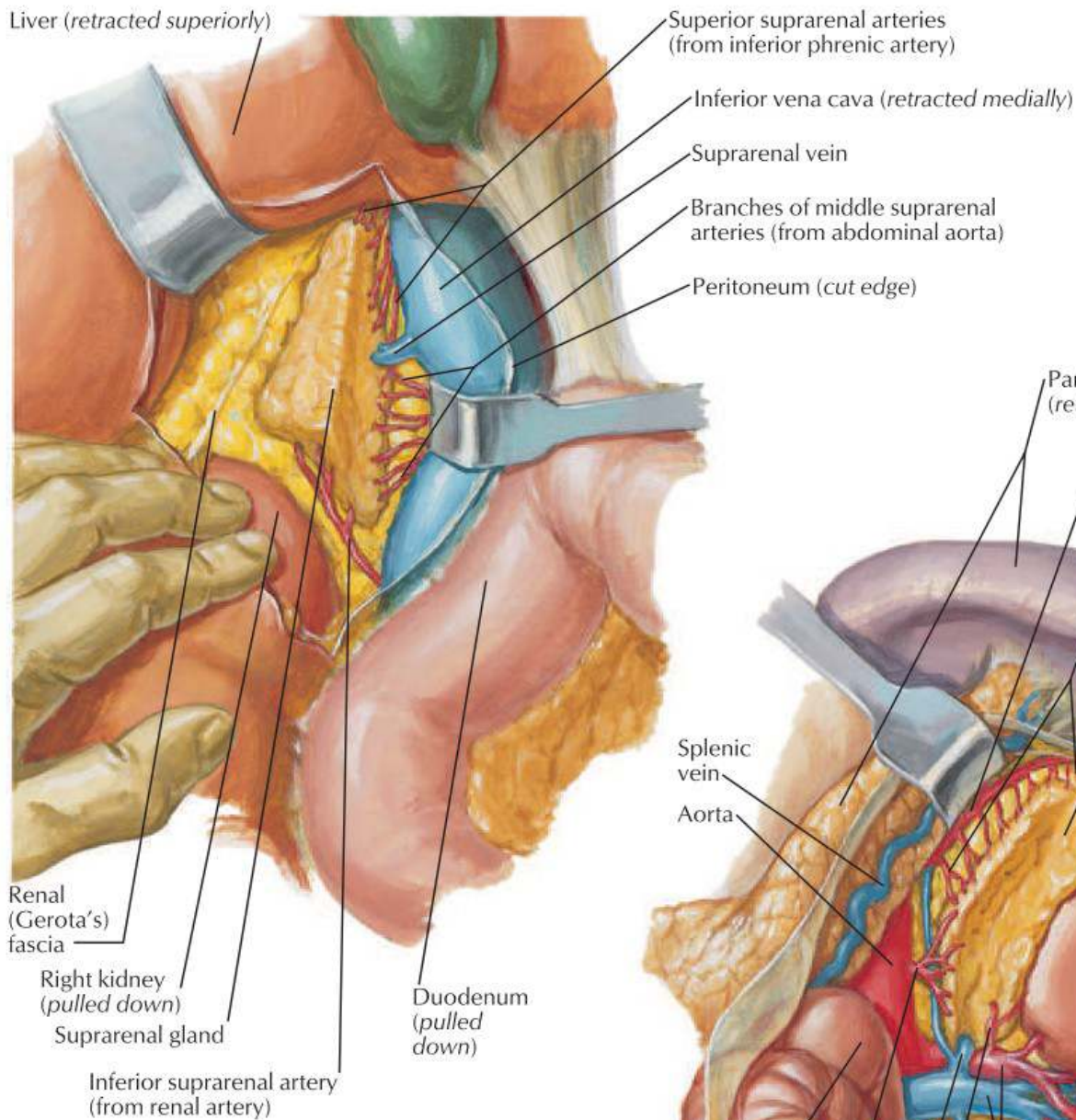
40 التعليقات

عشان ال buttocks تعتبر منطقة آمنة يعني safe zone مش هضر الطفل !! صح كده 😊



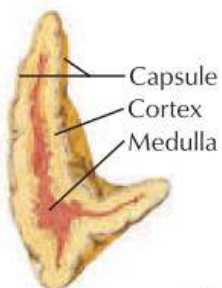
F. Netter M.D.



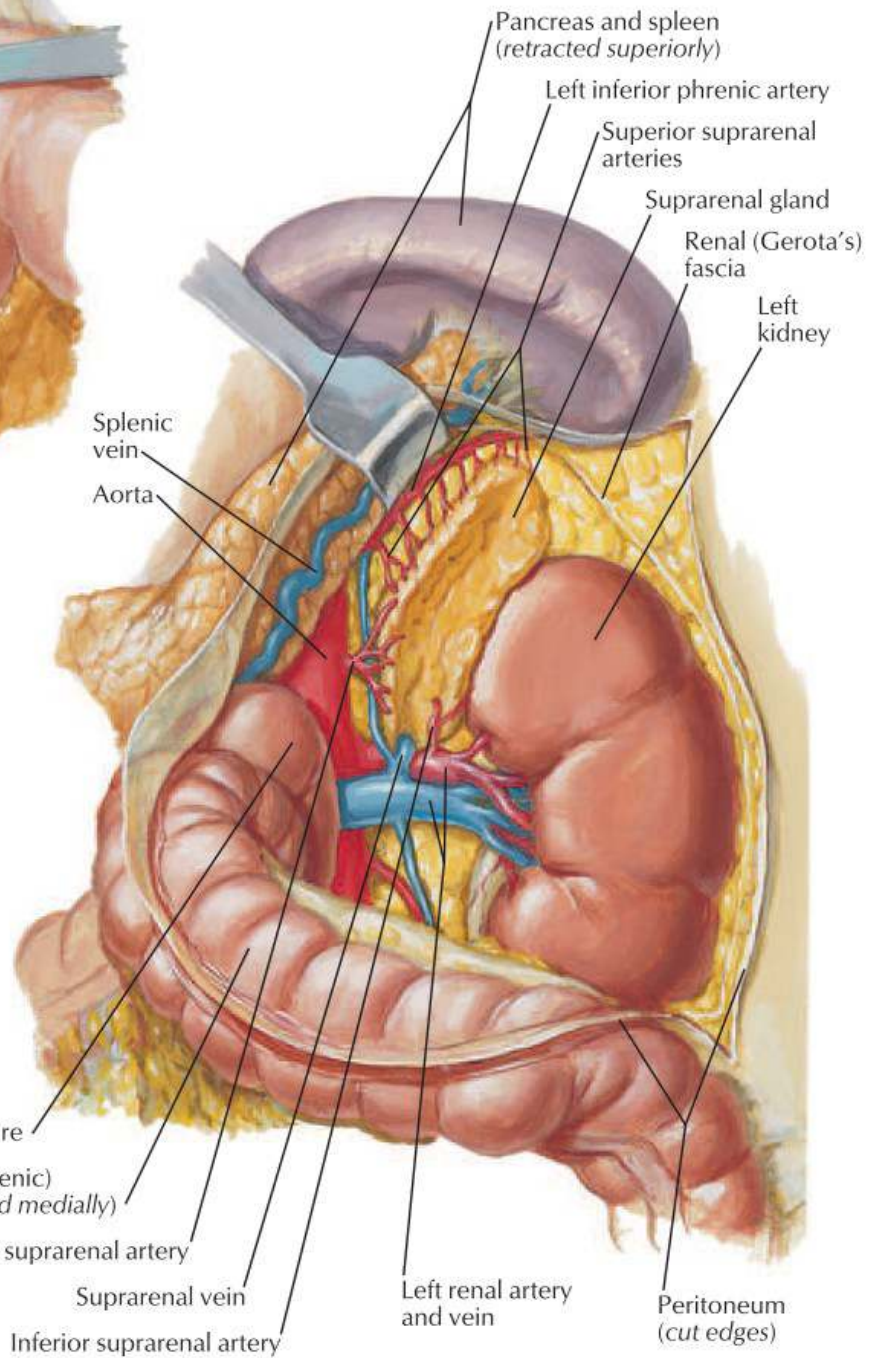


Abdominal exposure of right suprarenal gland

Cross section through suprarenal gland



F. Netter M.D.



Abdominal exposure of left suprarenal gland