

وسهلا

أهلا

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت
طائلة المسؤولية القانونية



الأستاذ الدكتور يوسف حسين

أستاذ التشريح وعلم الأجنة - كلية الطب - جامعة الزقازيق - مصر

رئيس قسم التشريح و الأنسجة و الأجنة - كلية الطب - جامعة مؤتة - الأردن

دكتورة من جامعة كولونيا المانيا

جروب الفيس د. يوسف حسين (استاذ التشريح)

اليوتيوب د. يوسف حسين

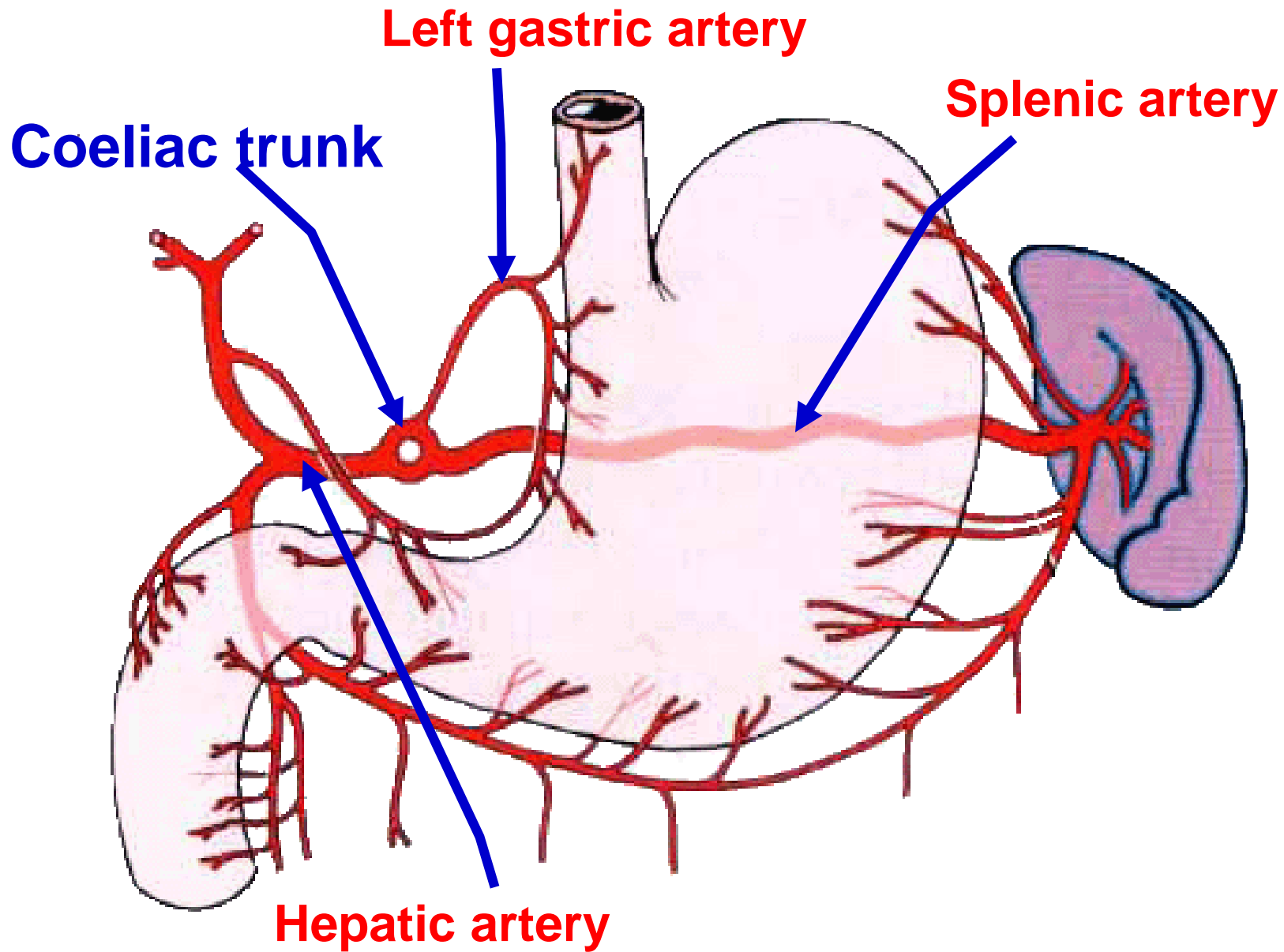
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Coeliac trunk

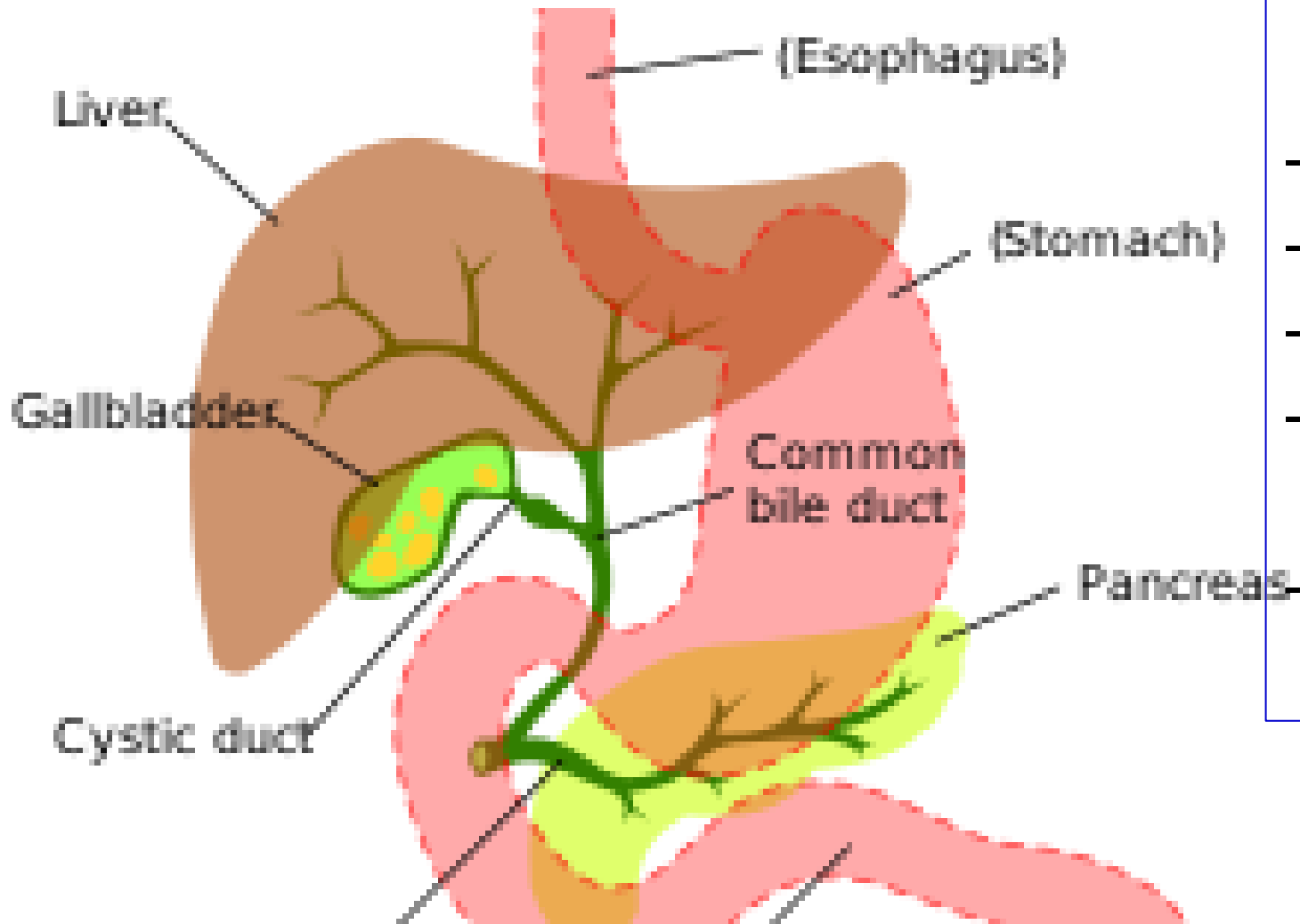
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**** Origin**, from the front of the abdominal aorta at the level of the **T12**.

**** Course**; it is a very short and wide arterial trunk.

**** Branches**



- **Coeliac Trunk**

- **This is the artery of the foregut**
- Abdominal part of esophagus
- Stomach
- Liver and gall bladder
- 1st part and upper 1/2 of the 2nd part of duodenum
- Pancreas (upper 1/2 of the head, body, and tail).

- **Left Gastric Artery**

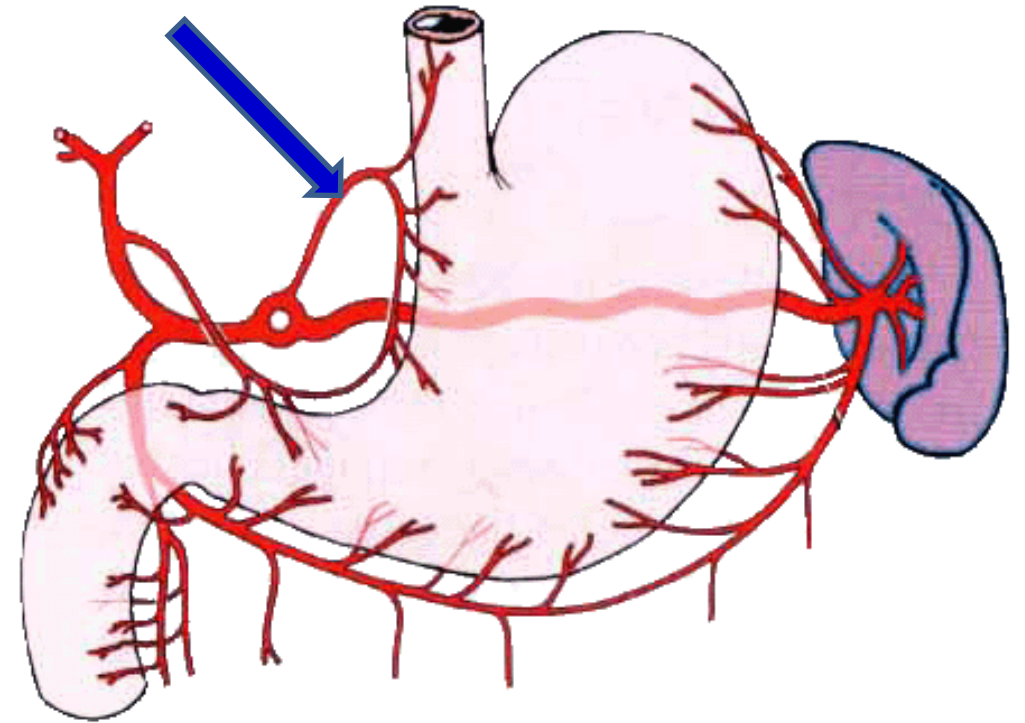
** **Origin** the smallest branch of the coeliac trunk.

** **Course:** it descends along the lesser curvature of the stomach between the two layers of the lesser omentum.

** **Ends** by anastomosing with right gastric artery.

- **It supplies**

- 1) Abdominal part of the esophagus.
- 2) Cardiac end of the stomach.
- 3) Upper part of the body of the stomach along lesser curvature.



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- **Splenic Artery**

**** Origin**, the **largest** branch of coeliac trunk.

**** Course**, - It runs as a tortuous course along the **upper border** of pancreas, behind stomach.

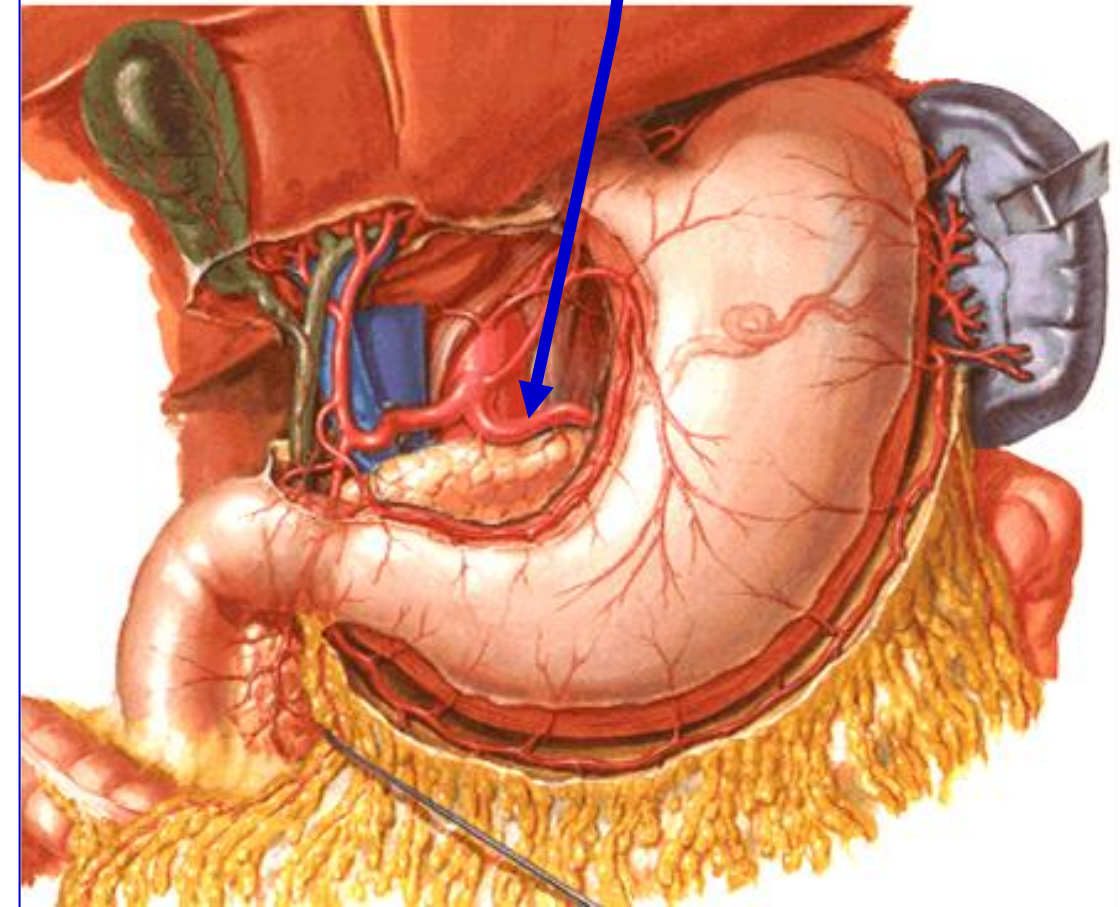
- It enters the lienorenal ligament to reach the hilum of spleen and ends by dividing into 5-6 branches.

**** It passes on (posterior relations)**

a- Left psoas major.

b- Left kidney

c- Left suprarenal gland.

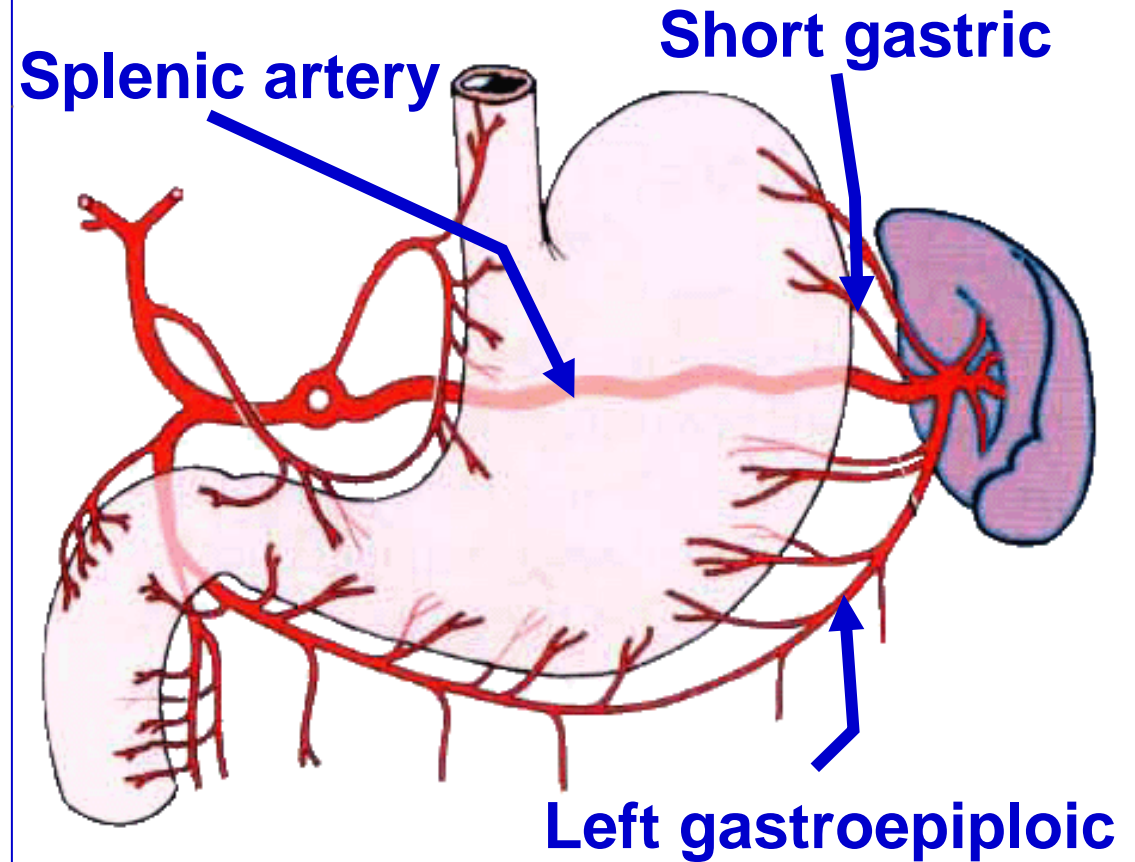


- **Why Splenic Artery is tortuous:**

- 1) Protects the artery during gastric distention and splenic enlargement.
- 2) Slows rate of blood flow to the spleen.

**** Branches**

- 1- **Pancreatic branches** to the pancreas.
- 2- **Short gastric arteries** to fundus of stomach.
- 3- **Left gastroepiploic artery** runs along the upper part of greater curvature of the stomach anastomosis with right **gastroepiploic artery** . It supply upper part of the body of the stomach along the greater curvature
- 4- **Terminal 5 to 6 splenic branches**



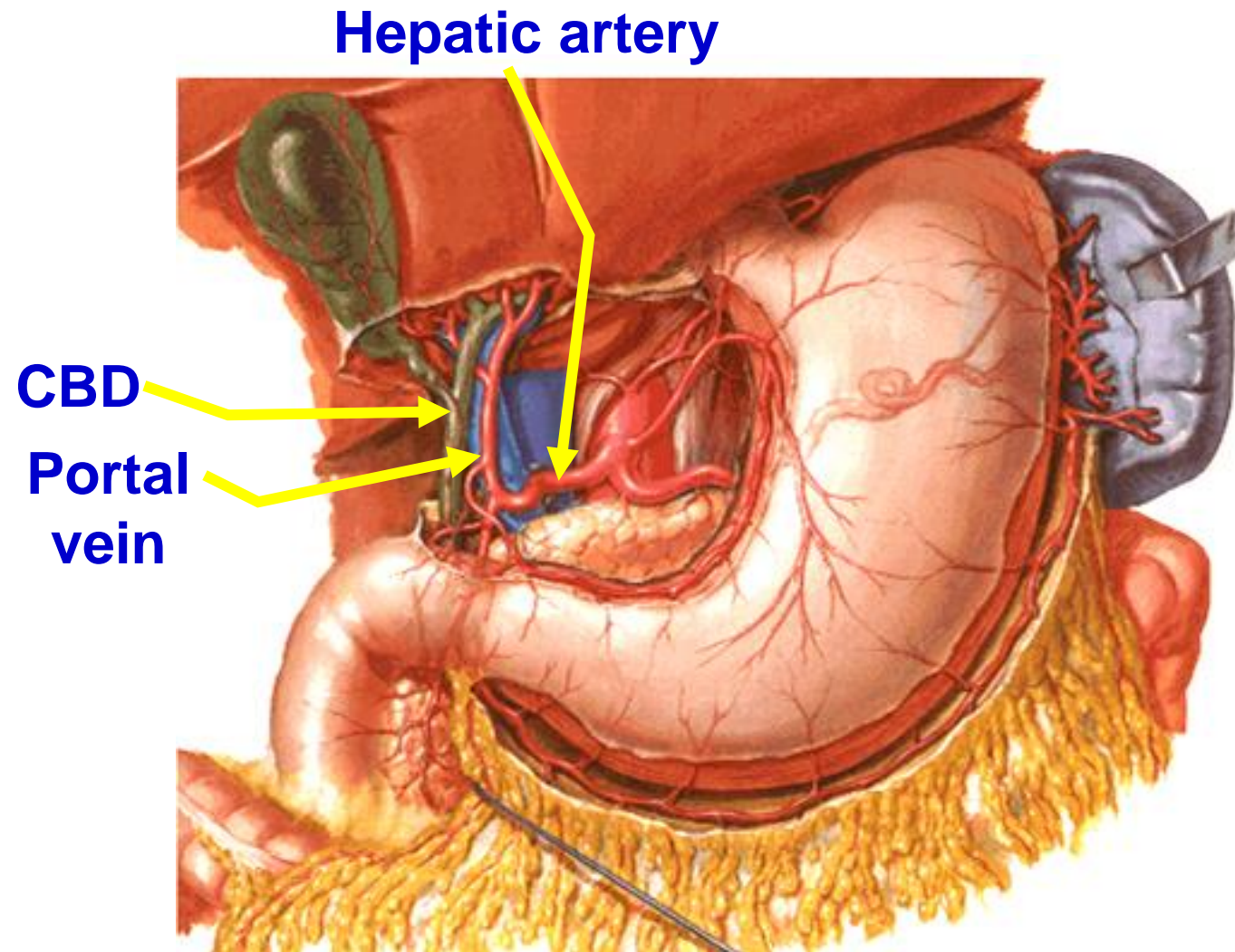
- **Hepatic Artery**

** **Origin**, the medium branch of the coeliac trunk.

** **Course**, it passes forwards and to right to reach the upper surface of the first part of the duodenum.

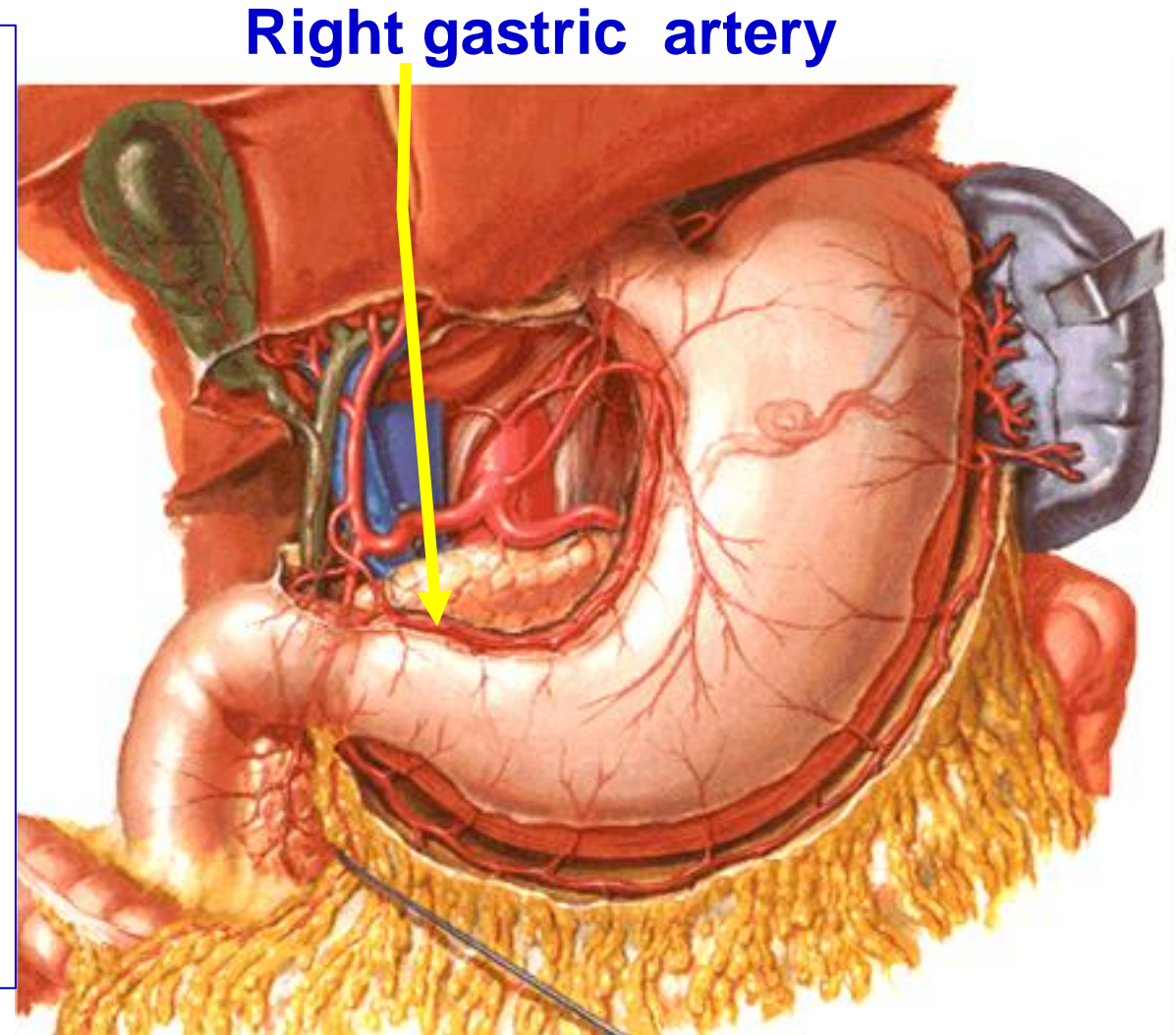
- It ascends in the right free margin of the lesser omentum to the porta hepatis (anterior to the portal vein and to the left of the common bile duct).

** **Termination**, by dividing into right and left hepatic branches.



**** Branches**

- **Right gastric artery** runs on the lesser curvature of the stomach.
- **It ends** by anastomosing with left gastric artery.
- **It supplies**
 - 1) Lower part of body of stomach along lesser curvature.
 - 2) Pylorus of the stomach.
 - 3) The 1st part of the duodenum.



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- **Gastrooduodenal artery**

- **It** descends behind the first part of the duodenum. It divides into two terminal branches

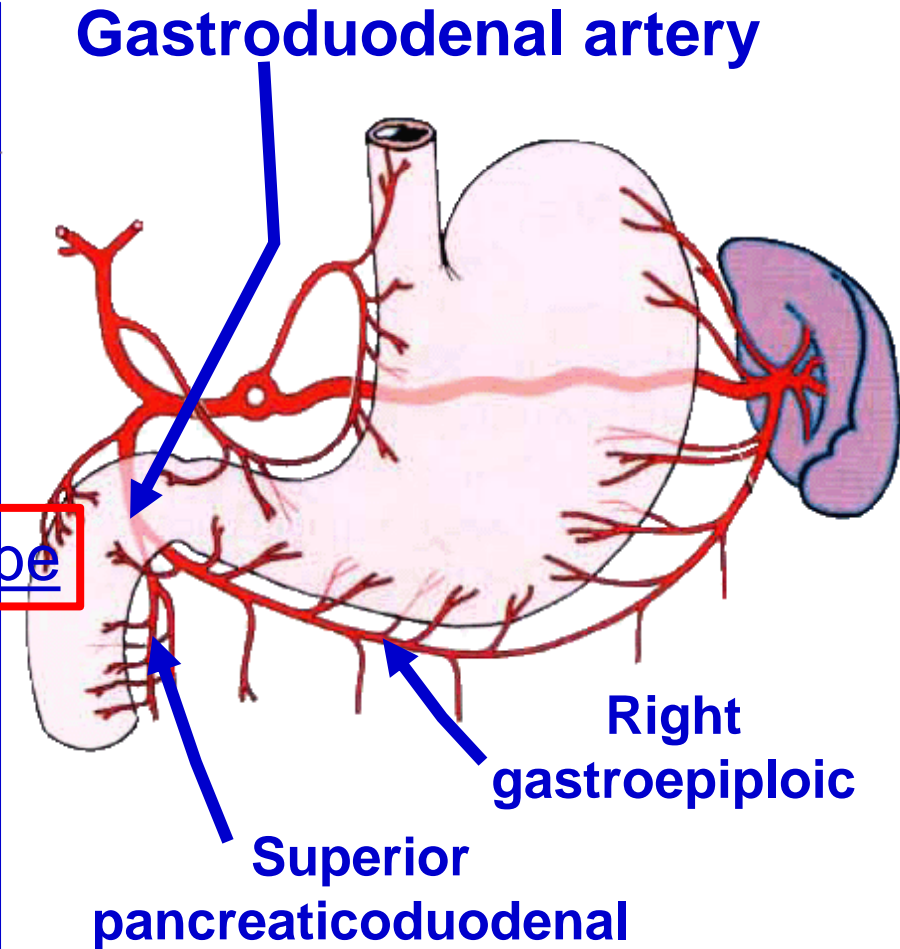
- a- Right gastroepiploic artery** runs along greater curvature of stomach. It ends by anastomosing with left gastro-epiploic artery.

- **It supplies** [Prof. Dr. Youssef Hussein Anatomy - YouTube](#)

- 1) Lower part of body of stomach along greater curvature.
- 2) Pylorus of the stomach.
- 3) The 1st part of the duodenum.

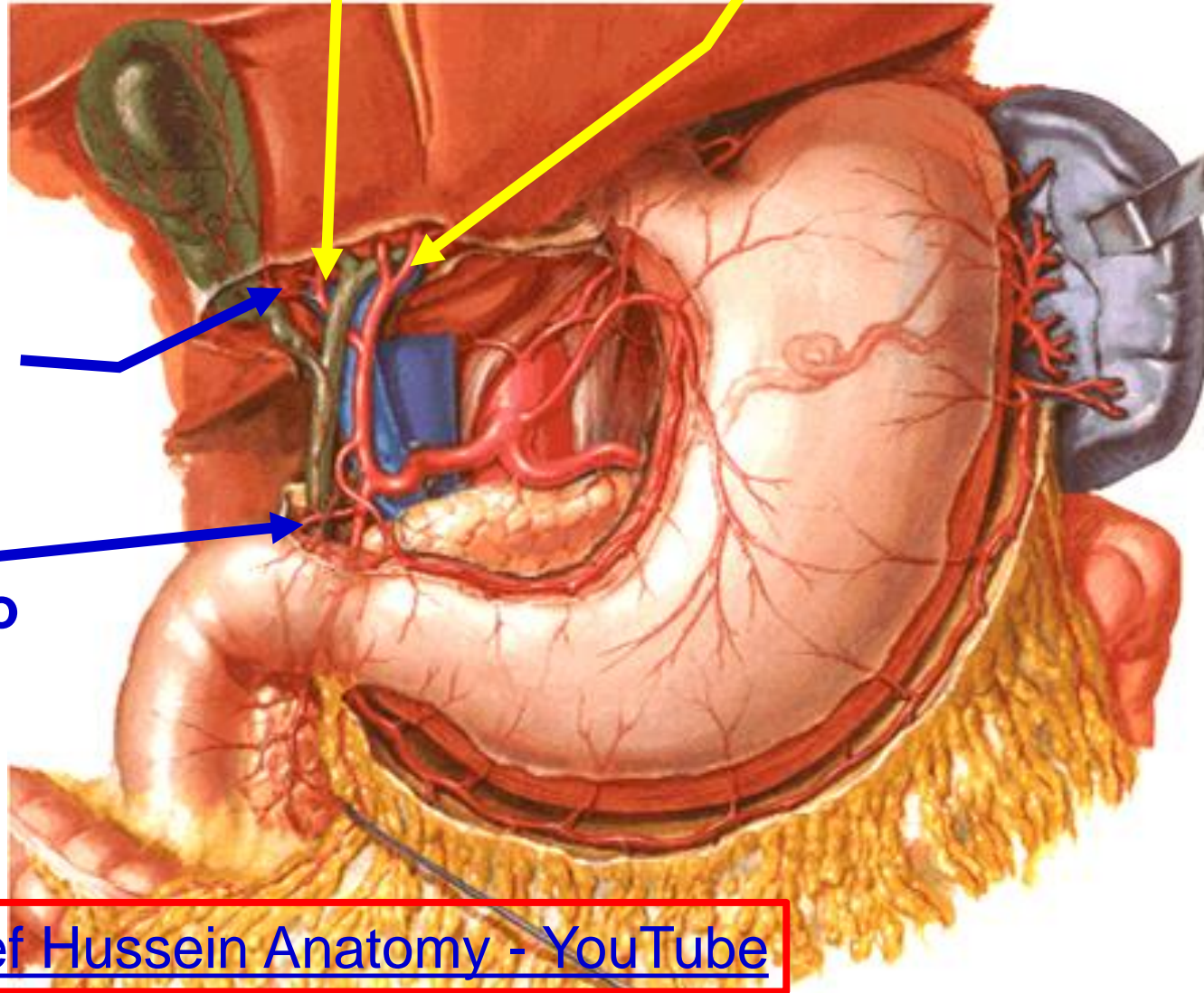
- b- Superior pancreaticoduodenal artery** run between duodenum and head of pancreas, end by anastomosing with inferior pancreaticoduodenal artery.

- **It supplies** the duodenum above the major duodenal papilla and upper half of the head of pancreas.



**Right terminal branch to
right lobe of liver**

**Left terminal branch to
left lobe of liver**



**Cystic artery to
gall bladder from
right hepatic**

**Supraduodenal to
the 1st part of
duodenum**

- **Clinical notes**

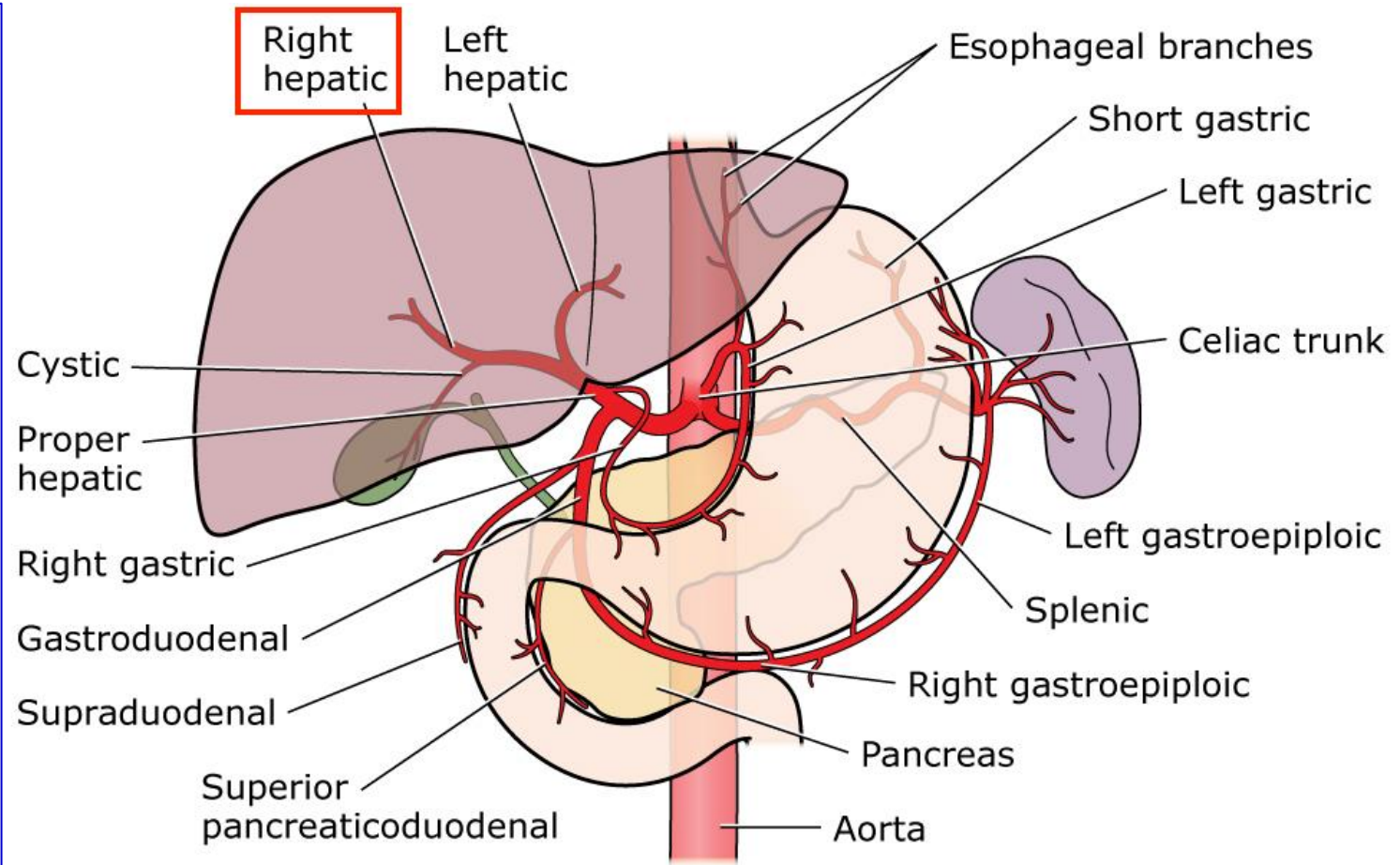
1- If the hepatic artery is ligated proximal to right gastric branch,

- A collateral circulation to the liver through Left gastric artery, splenic artery and superior mesenteric artery.

2- If the hepatic artery is ligated distal to gastroduodenal branch, hepatic necrosis

commonly occurs.

- A collateral circulation to the liver is only carried by the **inferior phrenic arteries.**



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Superior mesenteric artery

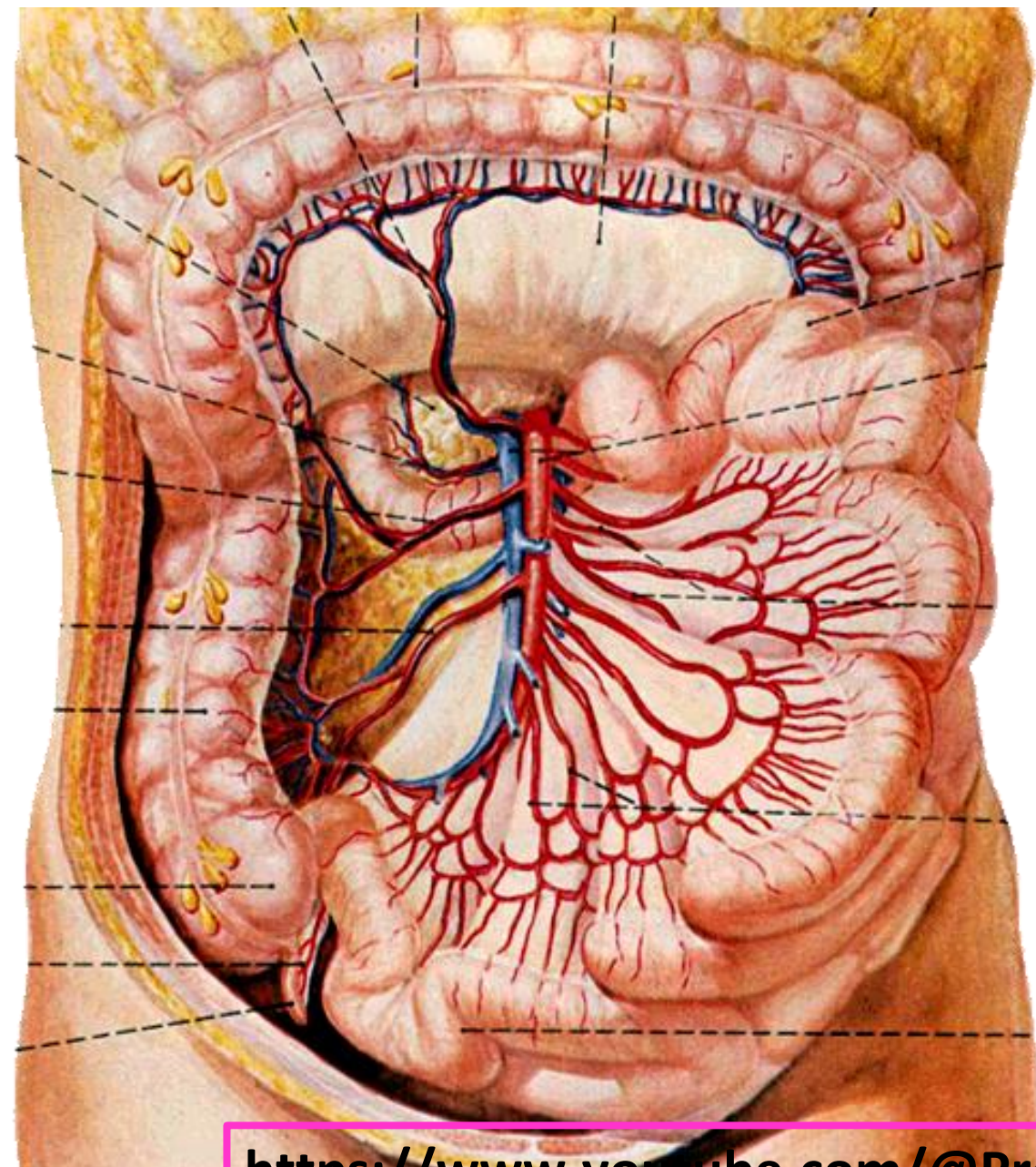
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• Superior Mesenteric Artery

- This is the **artery of the midgut**:
- Pancreas (lower 1/2 of head, uncinate processes)
- Lower 1/2 of the 2nd part, 3rd, 4th of the duodenum
- Jejunum, ileum, caecum, appendix,
- Ascending colon and right 2/3 of transverse colon.

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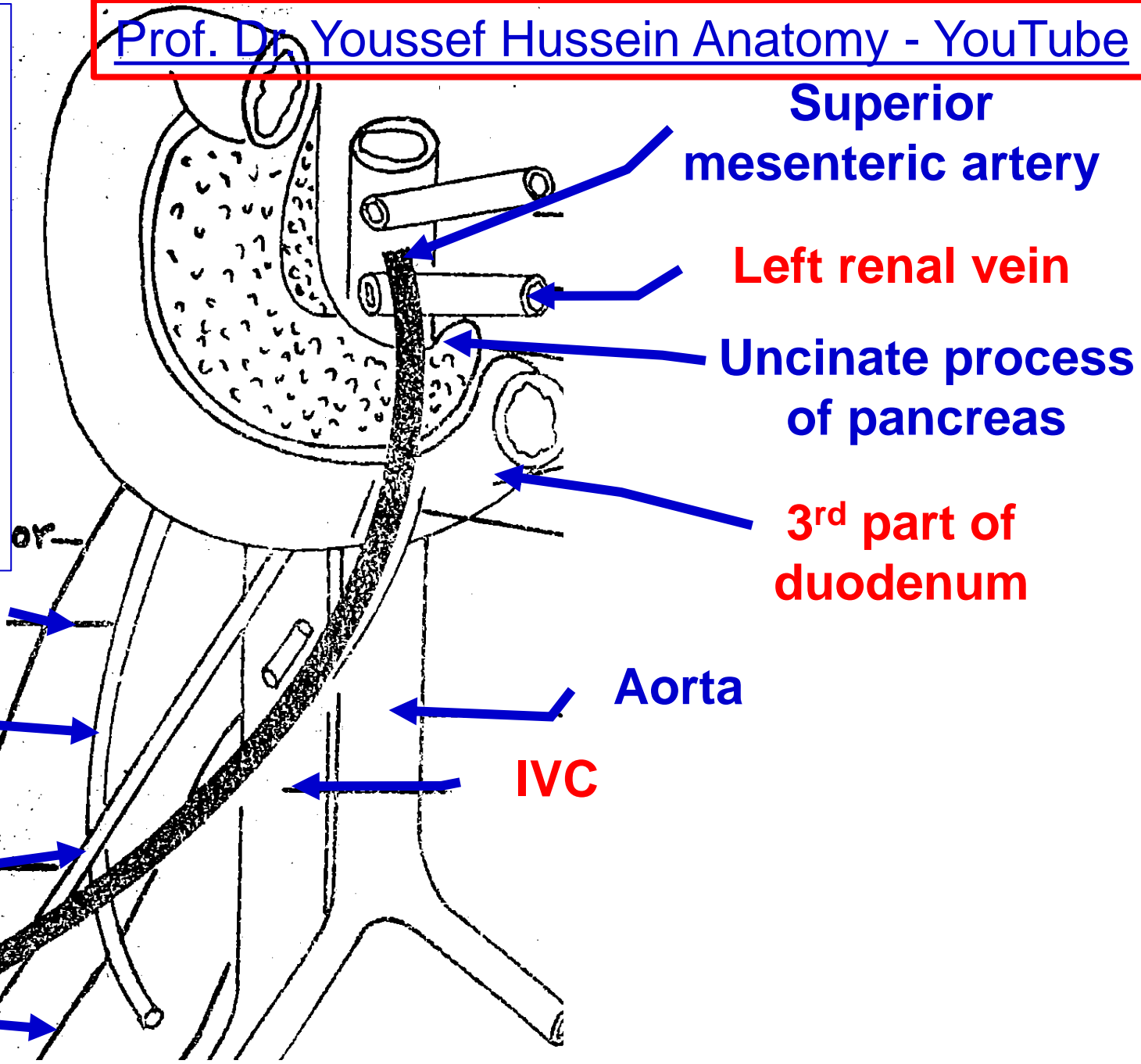
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**** Origin**, from the front of the abdominal aorta at the level of **L1**, behind by the body of the pancreas..

**** Course** : It runs through the **root of the mesentery** with a concavity to the right.

- It crosses **in front of** the following structures



Superior mesenteric artery

Left renal vein

Uncinate process of pancreas

3rd part of duodenum

Aorta

IVC

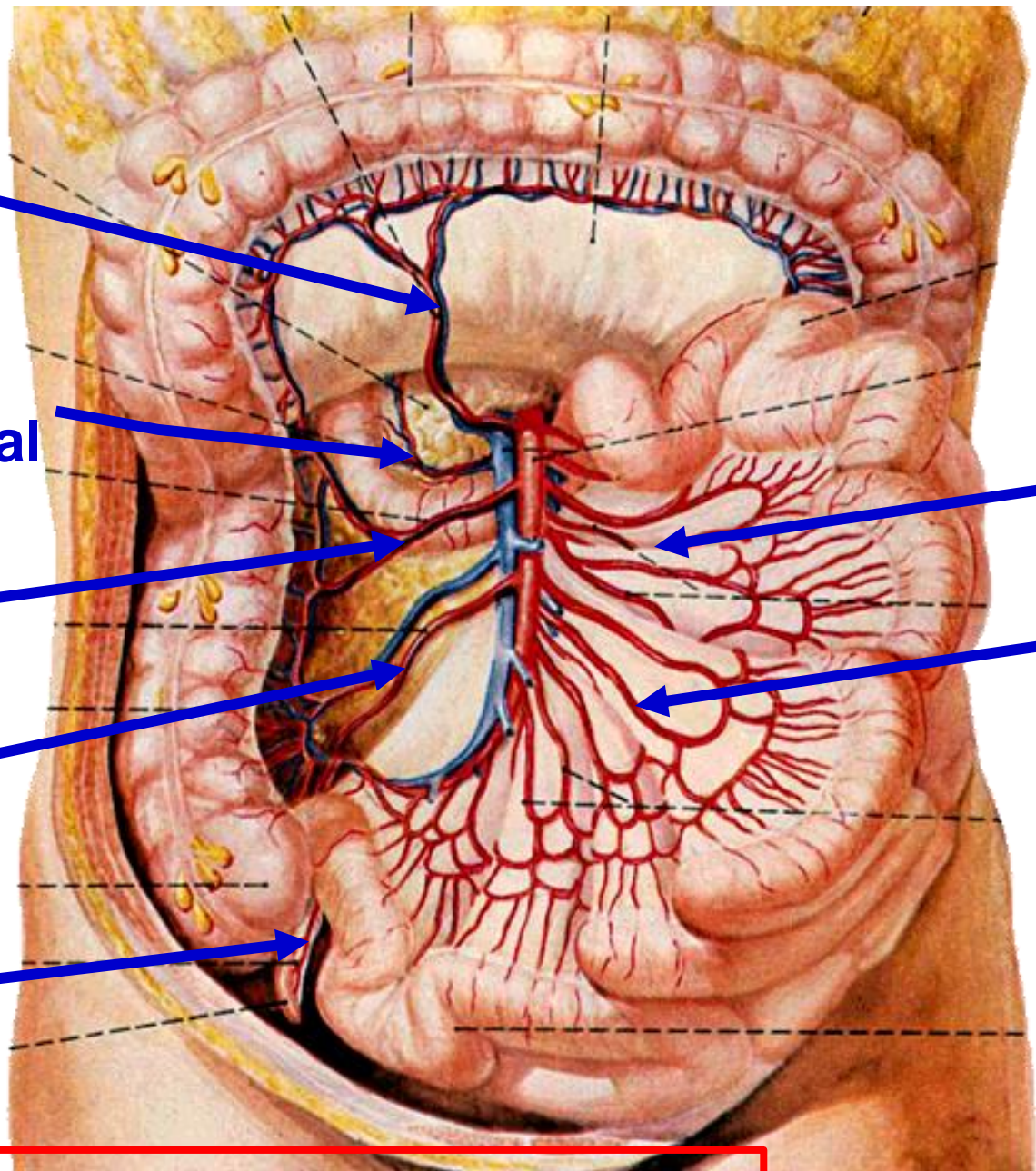
Right psoas major M

Right ureter

Right gonadal vessels

Right genitofemoral Nerve

Middle colic
**Inferior
pancreaticoduodenal**
Right colic
Ileocolic artery
**Appendicular
artery**



**• Branches of
Superior
Mesenteric Artery**

Jejunal branches
Iliac branches

**** Branches of Superior Mesenteric Artery**

1- Inferior pancreaticoduodenal artery

- Anastomosis with superior pancreaticoduodenal artery.
- It supplies duodenum below major duodenal papilla
- Lower half of the head of pancreas.

2- Jejunal branches to the jejunum.

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3- Ileal branches to the ileum.

4- Ileocolic artery

5- Right colic artery to the ascending colon and right colic flexure, **It divides into:**

- a- Ascending branch anastomoses with the right branch of the middle colic artery.
- b- Descending branch anastomoses with ascending branch of the ileocolic artery.

6- Middle colic artery, to the right 2/3 of the transverse colon. It divides into

- a- Right branch anastomoses with the ascending branch of right colic artery.
- b- Left branch anastomoses with the ascending branch of the left colic artery.

Ascending branch to lower part of ascending colon

Anterior caecal to the front of caecum

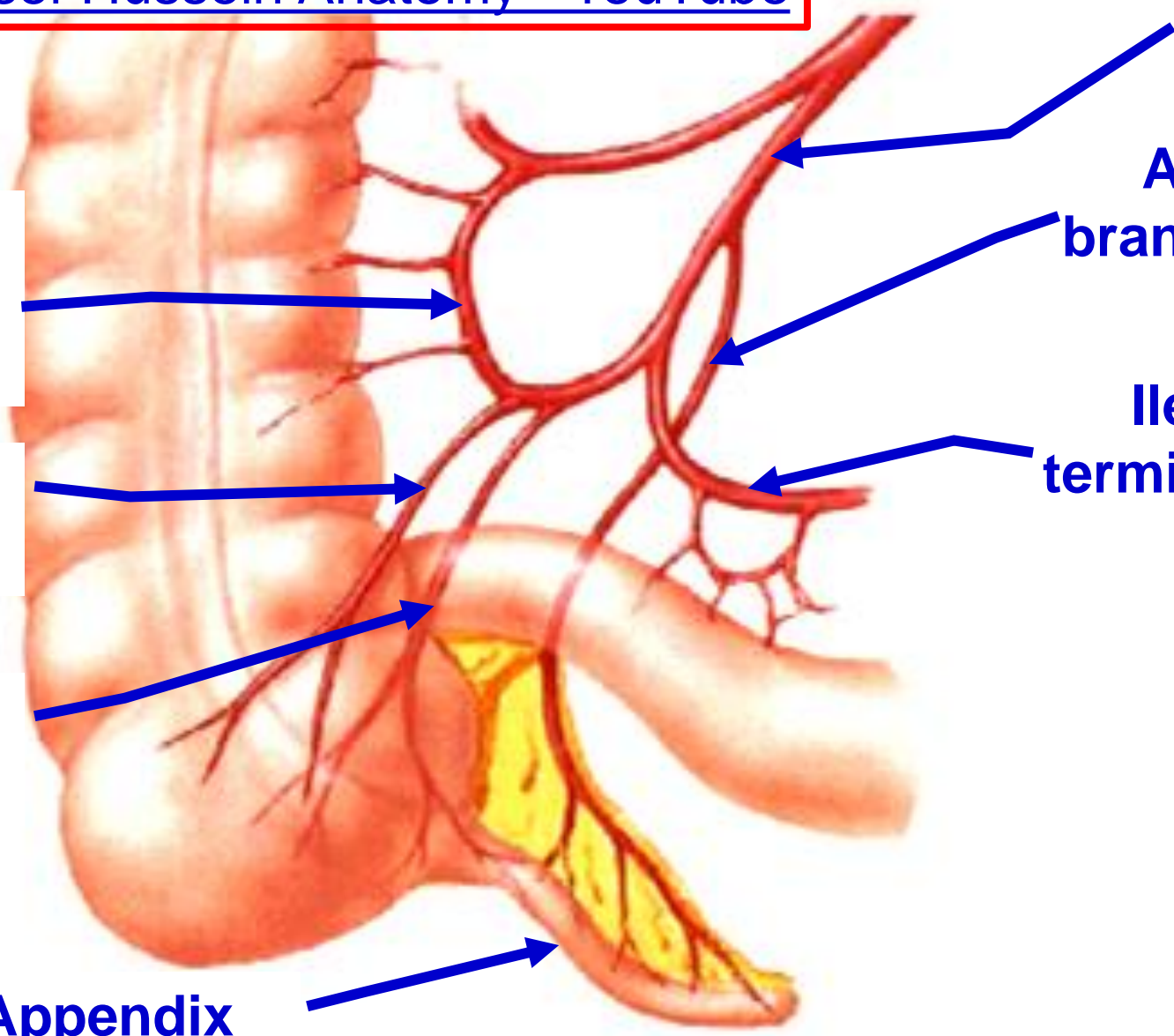
Posterior caecal to the back of caecum

Appendix

Ileocolic artery

Appendicular branch to appendix

Ileal branch to terminal part of ileum

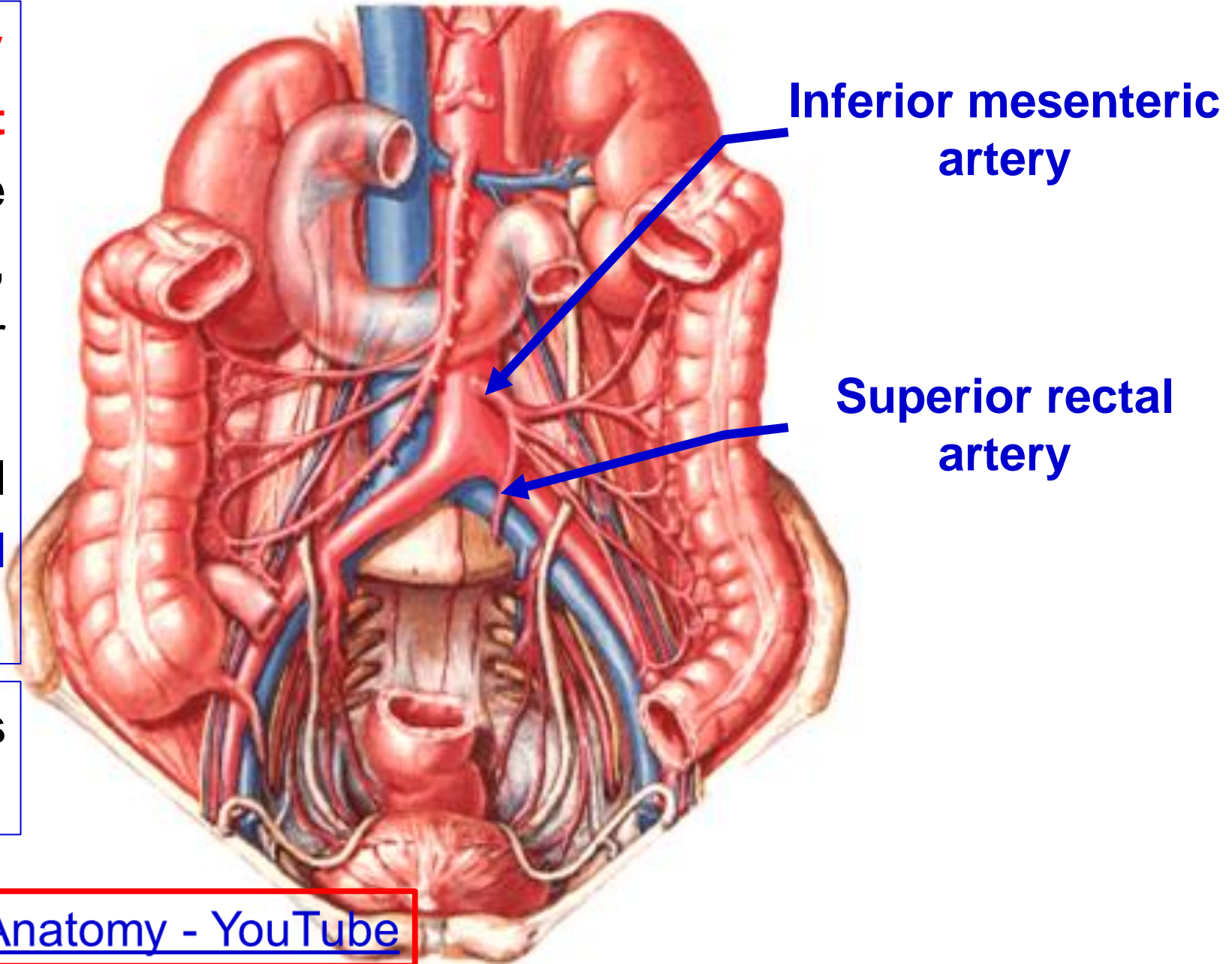


Inferior mesenteric artery

- **Inferior Mesenteric Artery**
- **The artery of the hindgut** (left 1/3 of the transverse colon, descending colon, sigmoid colon, and upper part of the rectum).

**** Origin,** from the abdominal aorta at the level of **the 3rd lumbar vertebra.**

**** Termination:** It **continues** as the superior rectal artery.



1- Left colic artery divides into,
a- Ascending branch anastomoses with left branch of middle colic artery
b- Descending branch anastomoses with highest sigmoid artery.

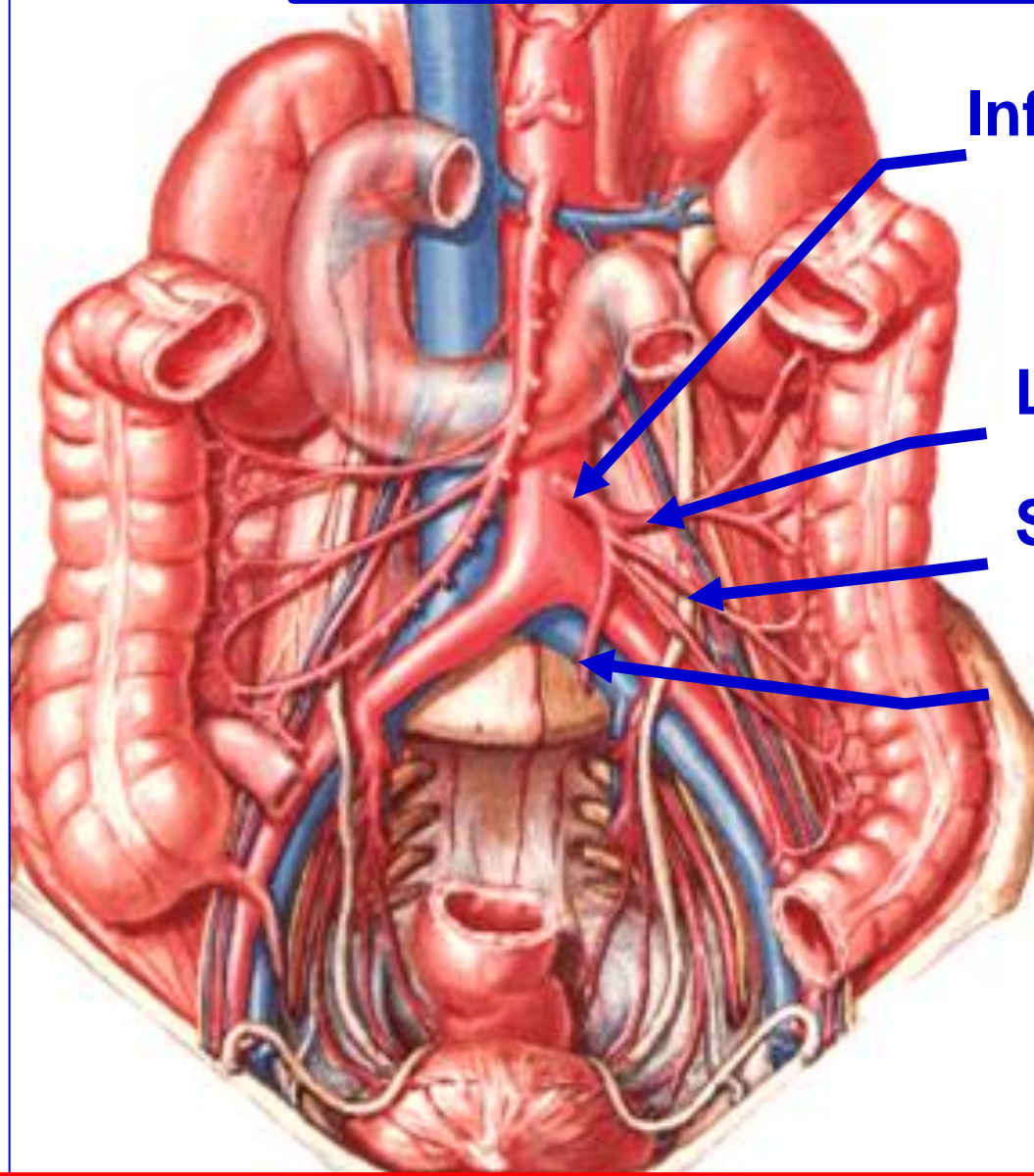
- to the left 1/3 of the transverse colon, left colic flexure and upper part of the descending colon

2- Sigmoid arteries (2-3), to the lower part of the descending colon and sigmoid colon, anastomoses together and with left colic and superior rectal arteries.

3- Superior rectal (Hemorrhoidal) artery to rectum and anal canal.

- It anastomoses with the middle and inferior rectal arteries

• Branches of inferior mesenteric artery

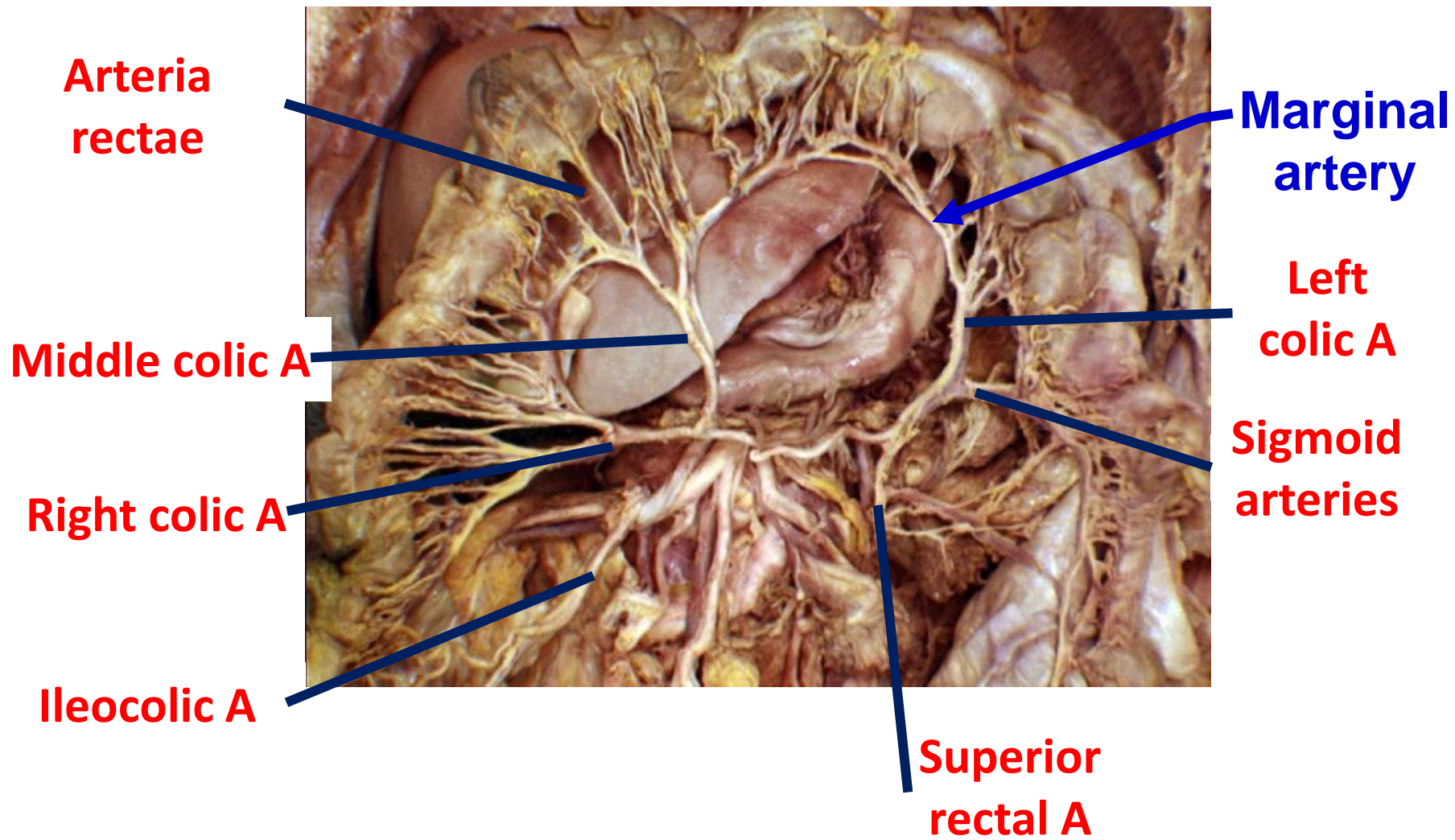


Inferior mesenteric artery

Left colic artery

Sigmoid arteries

Superior rectal artery



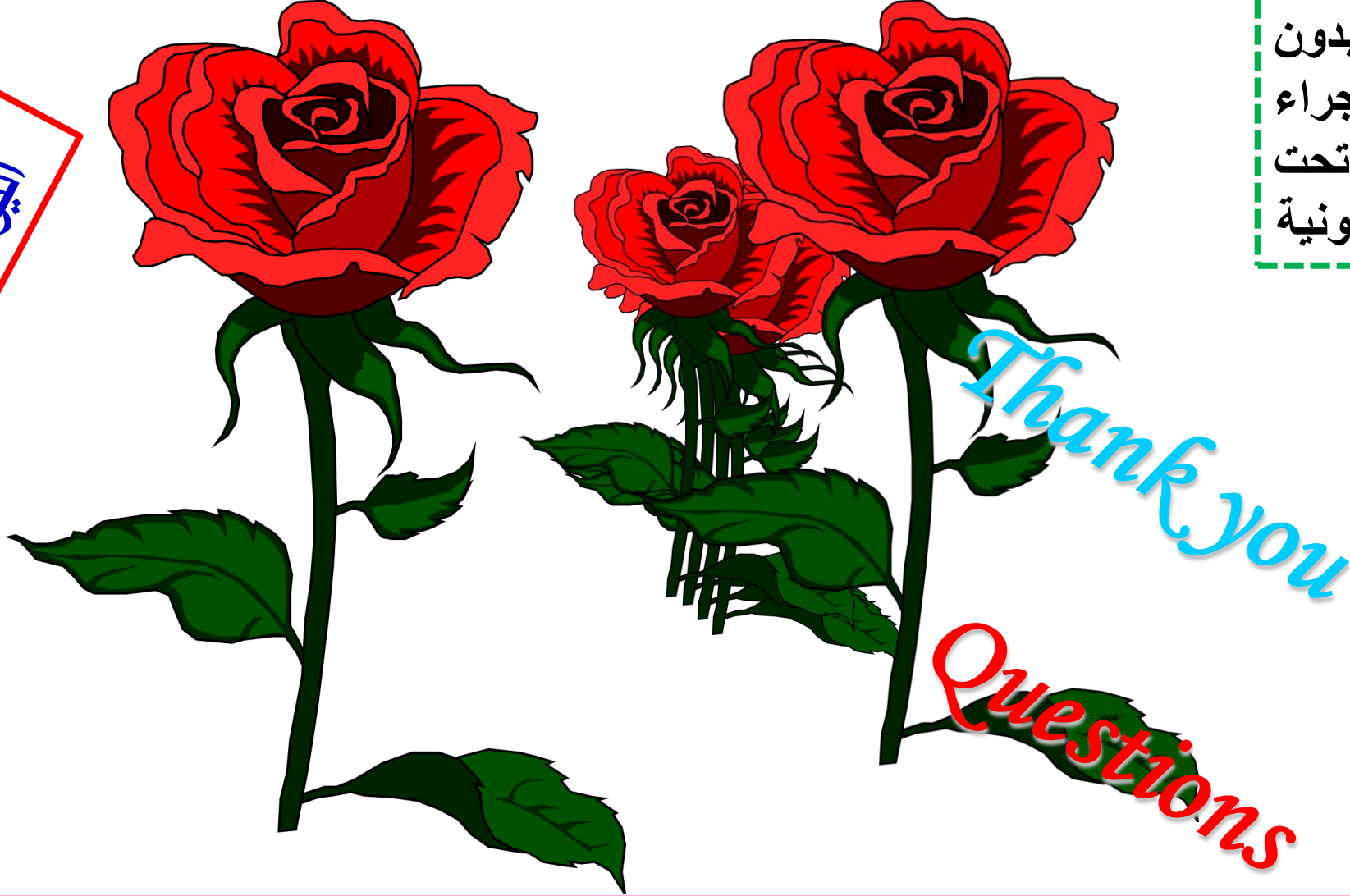
- **Marginal artery of Drummond (marginal arcade)**

- It is the serial anastomoses close to the wall of the colon.
- They form marginal artery that gives straight arteries supply intestine called arteria rectae
- **It is formed by** the branches of the superior and inferior mesenteric arteries:
 - 1- Ascending branch of **ileocolic artery** anastomoses with descending branch of right colic.
 - 2- Ascending branch of **right colic** anastomoses with the right branch of middle colic artery.
 - 3- Left branch of **middle colic** anastomoses with ascending branch of left colic artery. [Prof. Dr. Youssef Hussein Anatomy - YouTube](#)
 - 4- Descending branch of **left colic** anastomoses with the highest sigmoid artery.
 - 5- The **sigmoid arteries** anastomose with each other.
 - 6- The lower sigmoid artery anastomoses with **superior rectal artery**.

https://www.youtube.com/channel/UCVSNqbibj9UWYaJdd_cn0PQ

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