

وسهلا



أهلا

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت طائلة
المسؤولية القانونية
جميع المعلومات للاستخدام
التعليمي فقط

الأستاذ الدكتور يوسف حسين

كلية الطب - جامعة مؤتة - الأردن

دكتورة من جامعة كولونيا المانيا

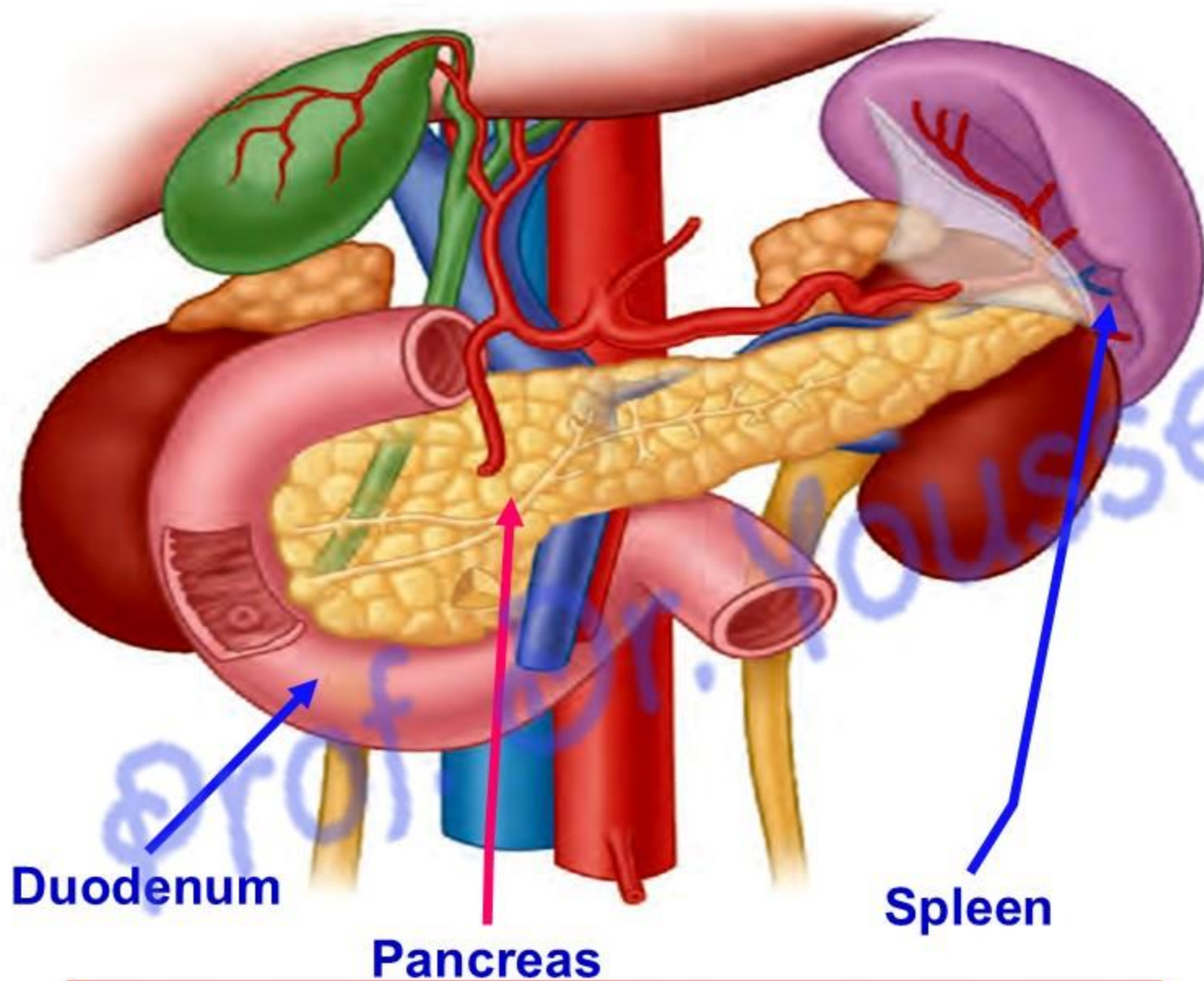
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Pancreas

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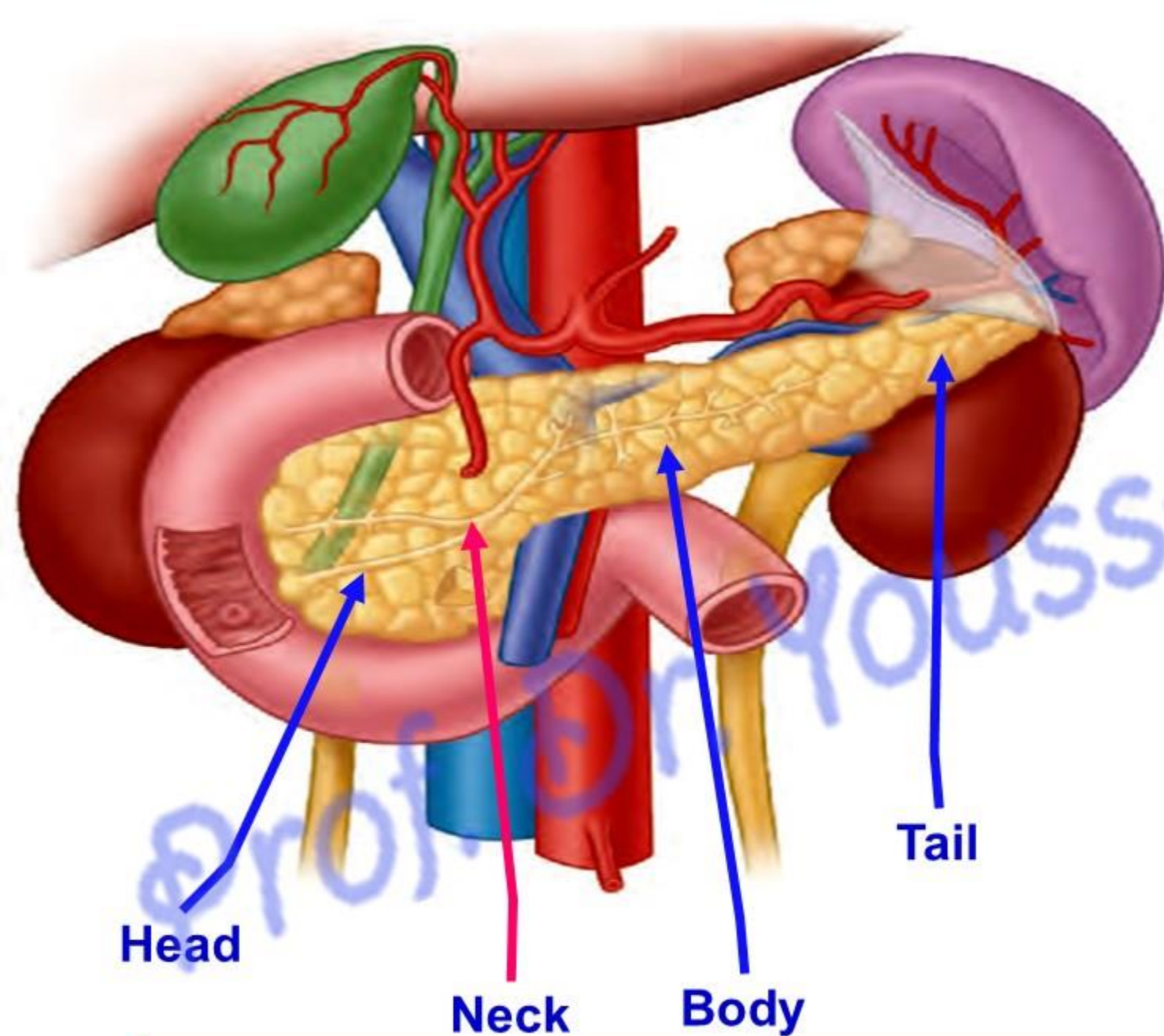
• Pancreas

** It is a combined exocrine and endocrine gland (mixed)

** **Position**, it lies transversely across posterior abdominal wall.

- It **extends from duodenum** (right) to the spleen (left), with a slight **upward inclination** from the right to the left sides.

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**** Parts of pancreas**

**** Peritoneal covering**

It is retroperitoneal except its tail completely covered by peritoneum (lienorenal ligament)

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** Surface anatomy

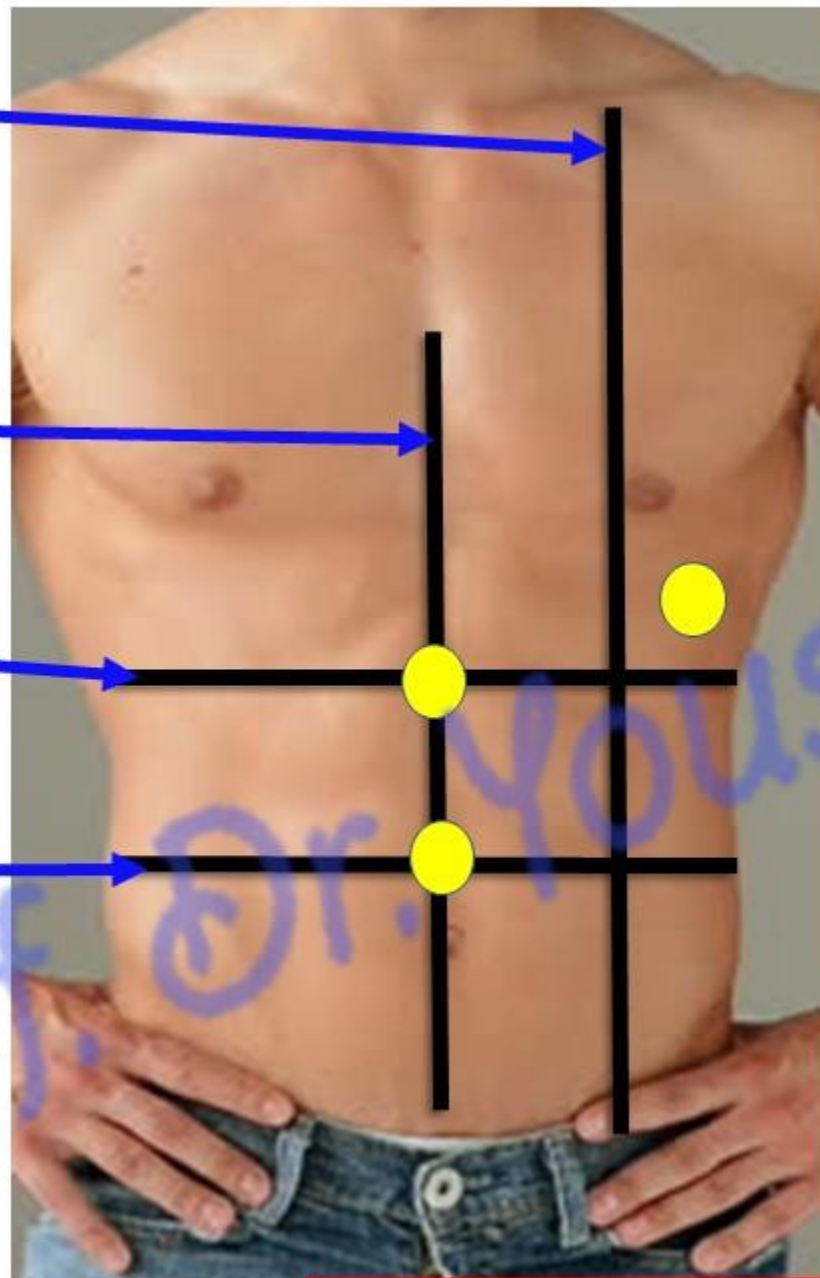
- 1- **Head** in the concavity of duodenum.
- 2- **Neck** on transpyloric plane (L1), behind the pylorus of stomach.
- 3- **Body and tail:** It is represented by a triangle as follows:
 - **Point (1)** at crossing transpyloric plane (L1) with the median plane.
 - **Point (2)** at crossing subcostal plane (L3) with the median plane.
 - **Point (3)** left and superior to point of crossing transpyloric plane with left midclavicular line.

Left
midclavicular
line

Median plane
plane

Transpyloric
plane

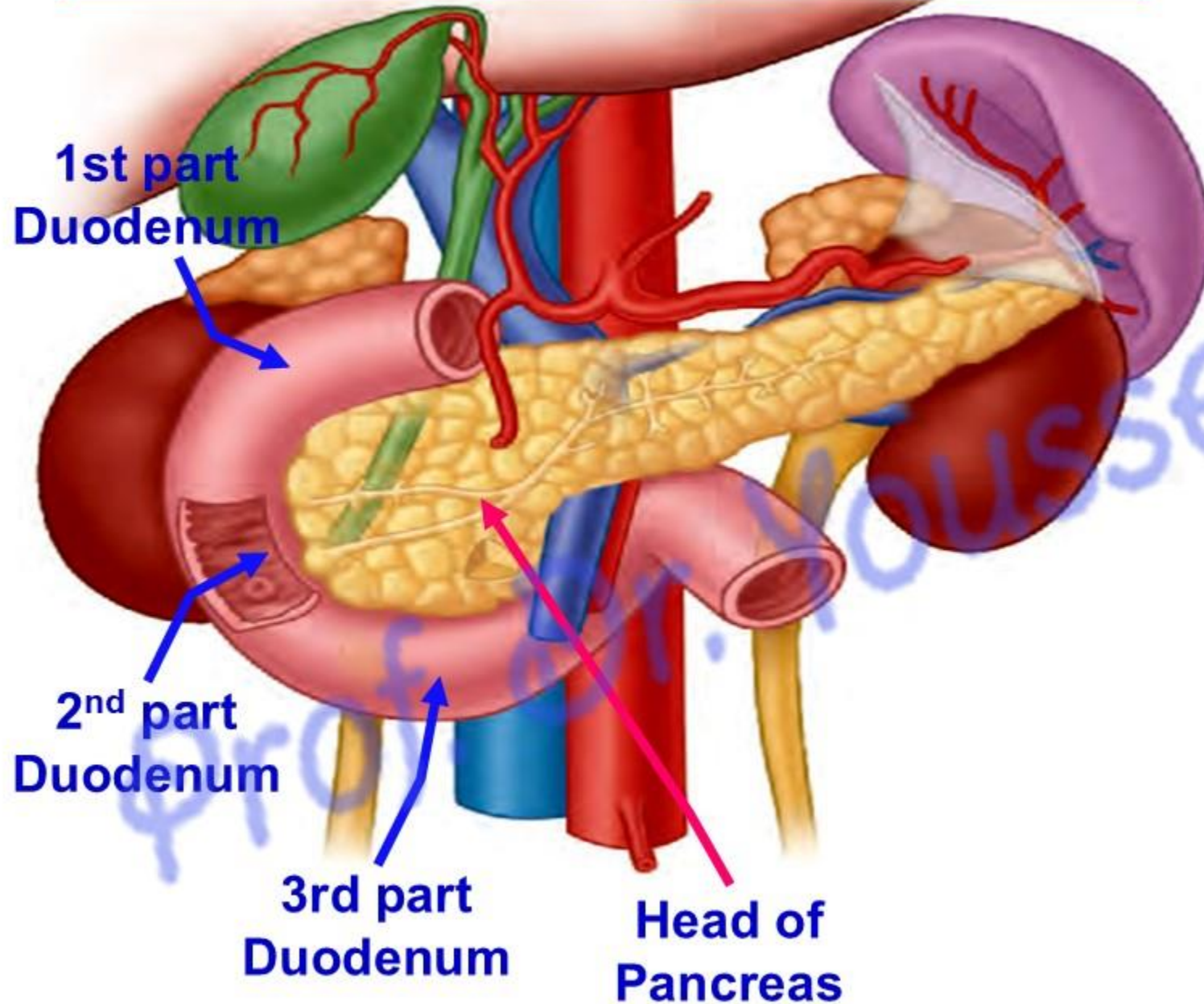
Subcostal
plane



Relations of Pancreas

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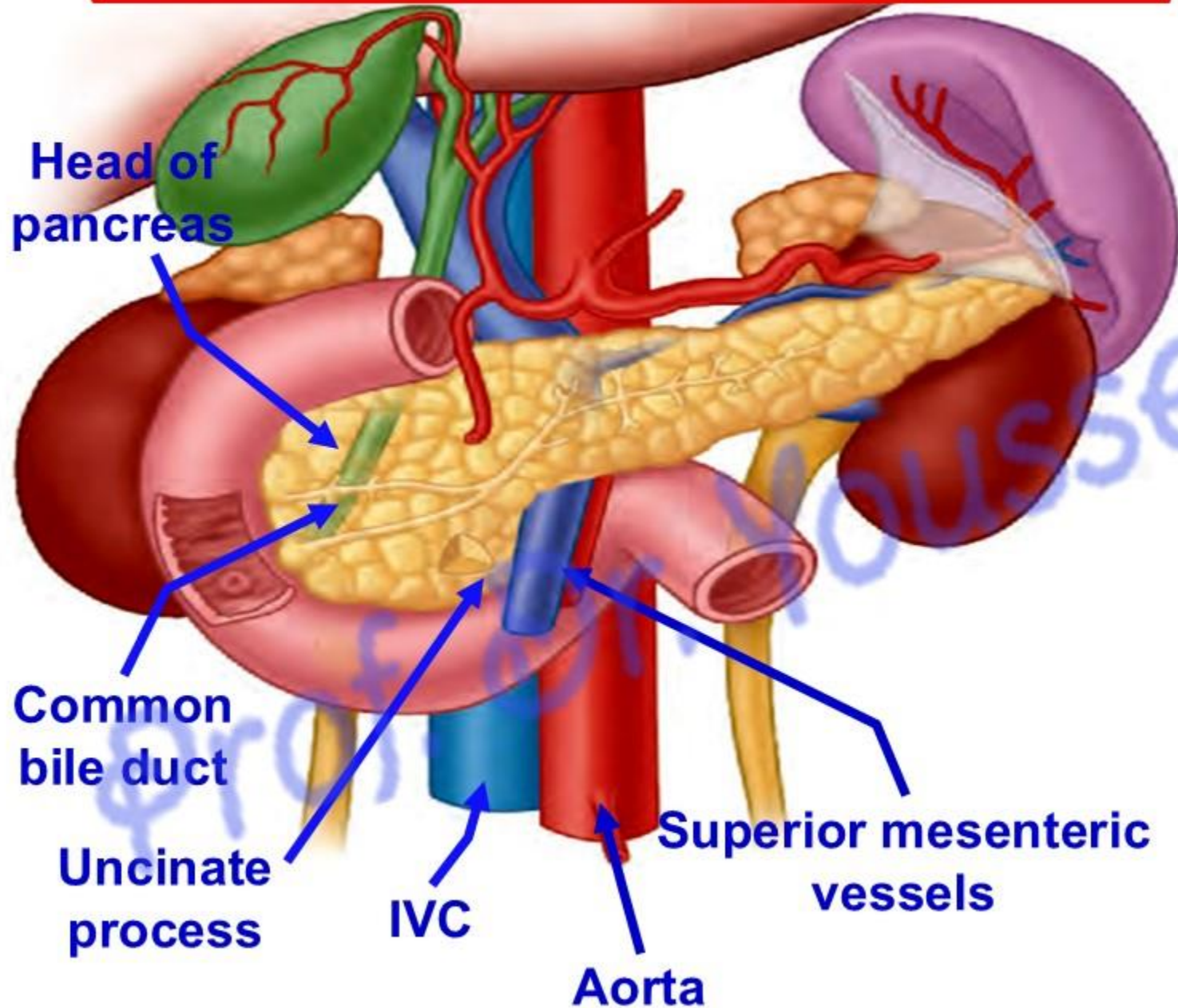
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• Head of Pancreas

- **Superiorly:** the 1st part of duodenum.
- **Inferiorly:** the 3rd part of duodenum.
- **Laterally:** the 2nd part of duodenum separated from it by superior and inferior pancreaticoduodenal vessels.

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- **Head of Pancreas**

- **Posteriorly:** common bile duct , IVC & two renal veins.
- **Anteriorly:** transverse colon & small intestine.

- **Uncinate process**

- **Posteriorly:** abdominal aorta.
- **Anteriorly:** Superior mesenteric vessels.

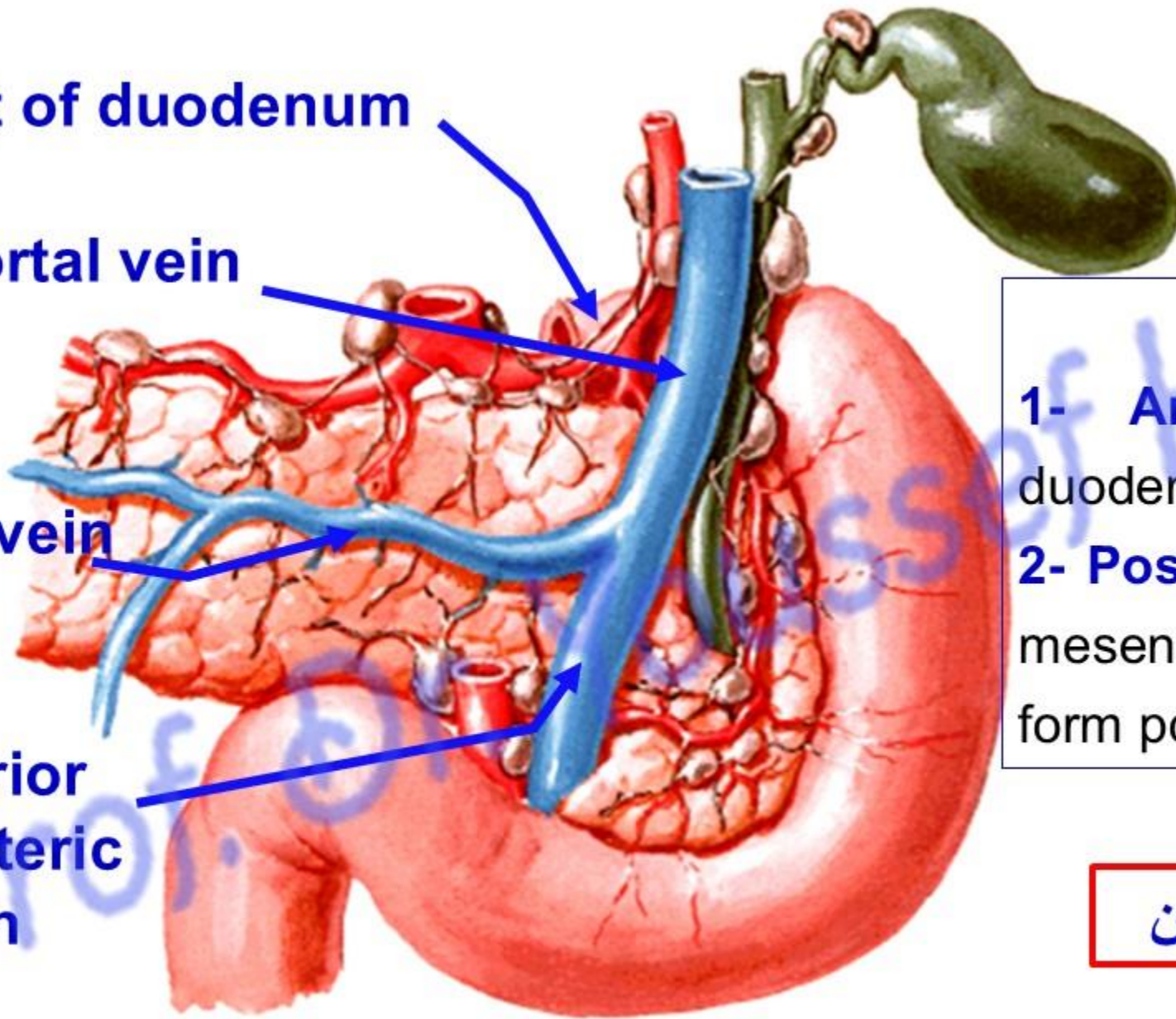
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1st part of duodenum

Portal vein

Splenic vein

Superior mesenteric vein



Neck of pancreas

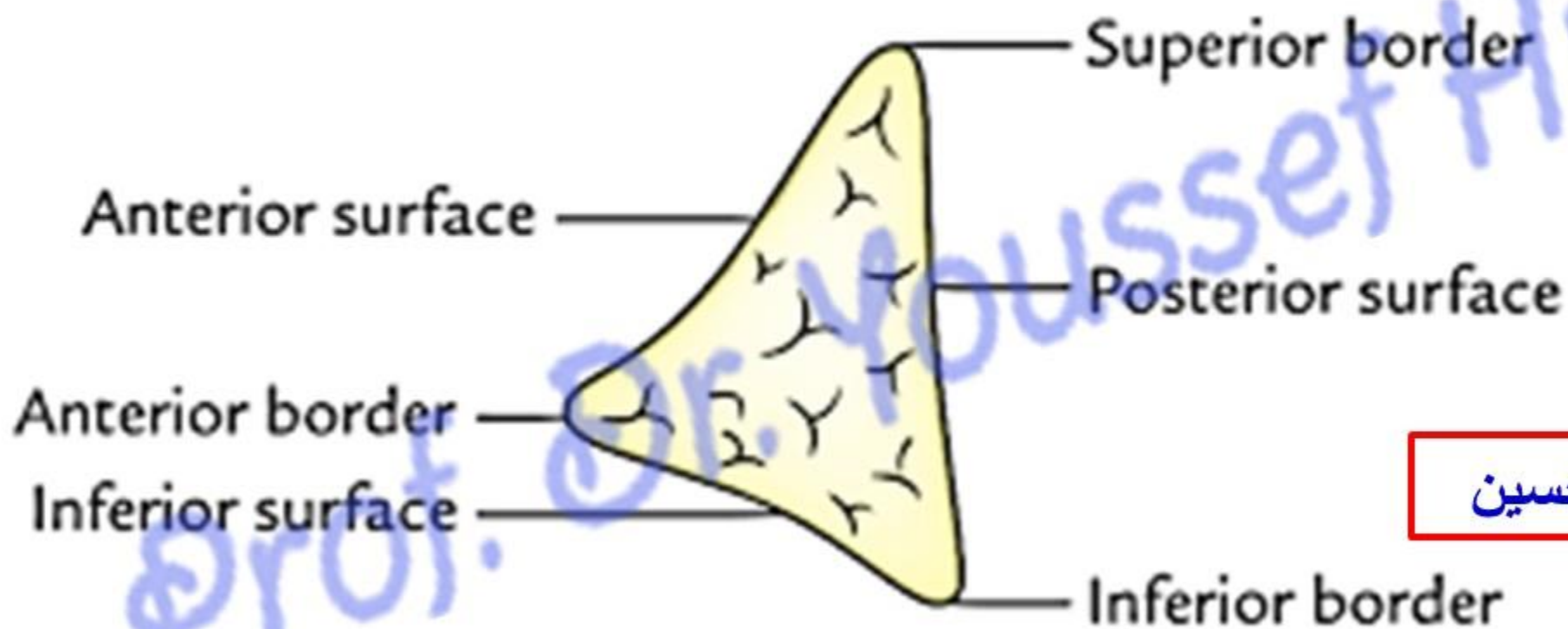
1- **Anteriorly:** 1st part of duodenum.

2- **Posteriorly:** union of superior mesenteric and splenic veins to form portal vein.

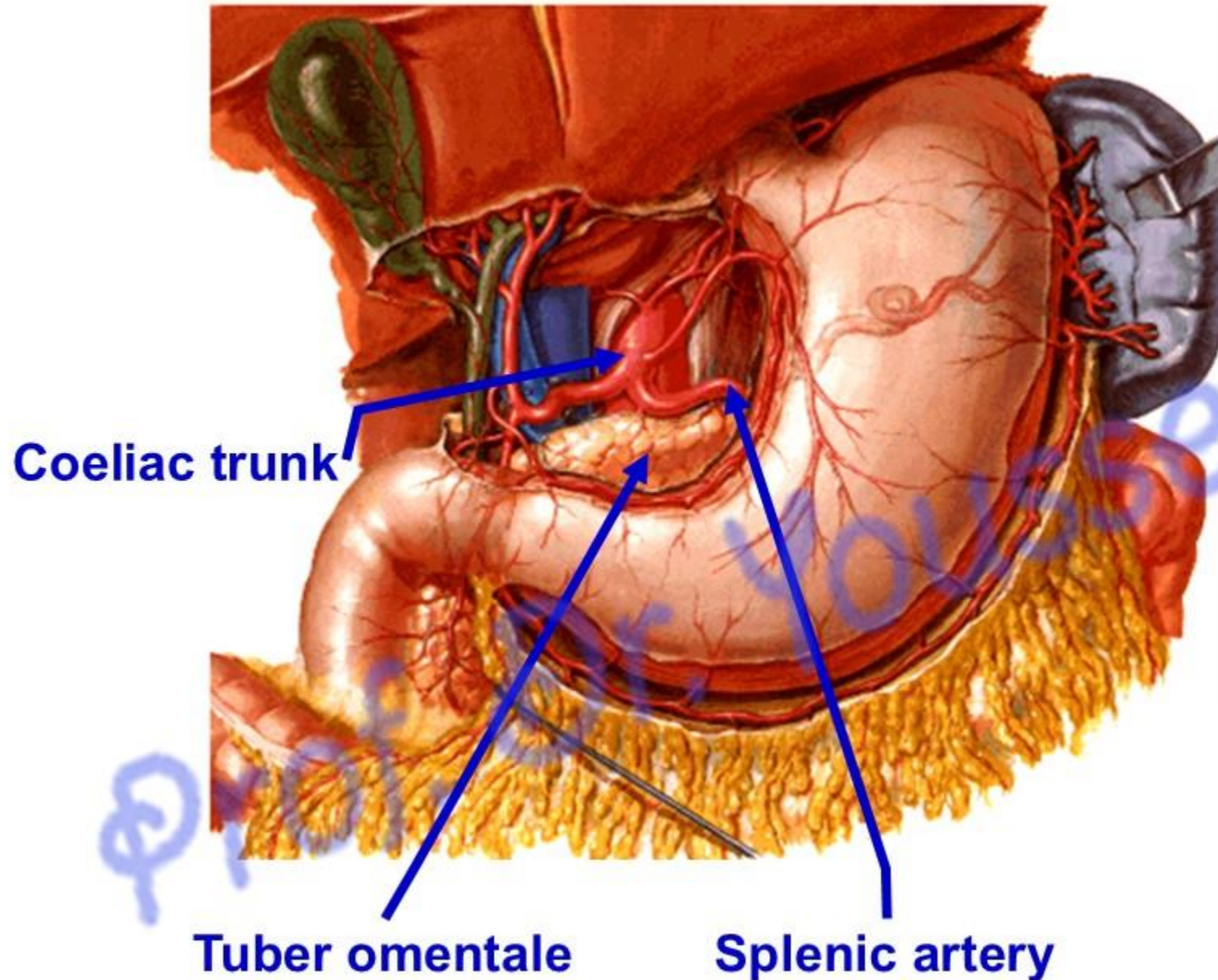
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- **Transverse section of the body of pancreas**

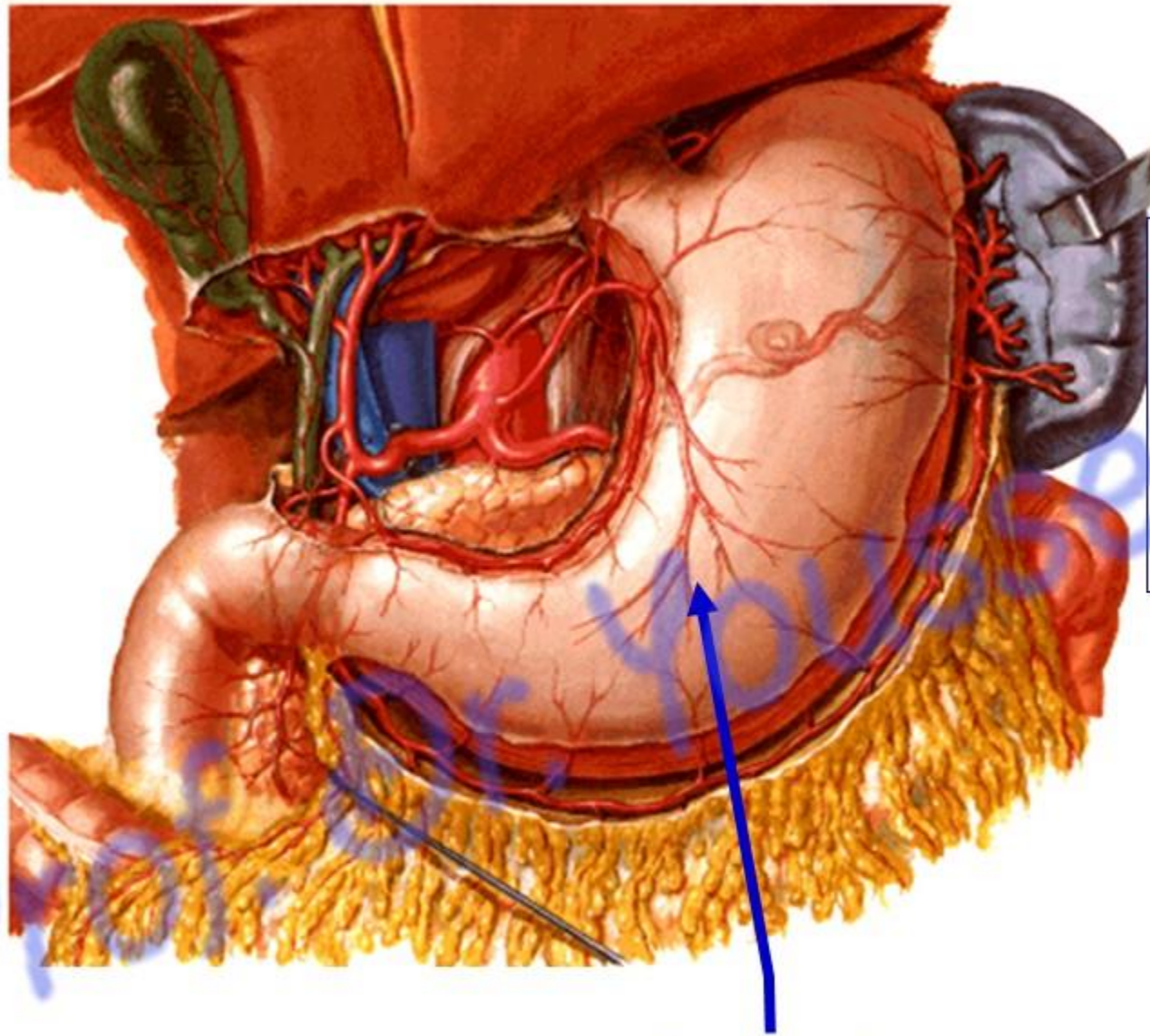


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- **Relations of superior border of body of pancreas**
- **Tortuous Splenic artery** passes on the superior border of pancreas
- **Tuber omentale of pancreas**, upward projection of superior border above level of lesser curvature of stomach which related to coeliac trunk.

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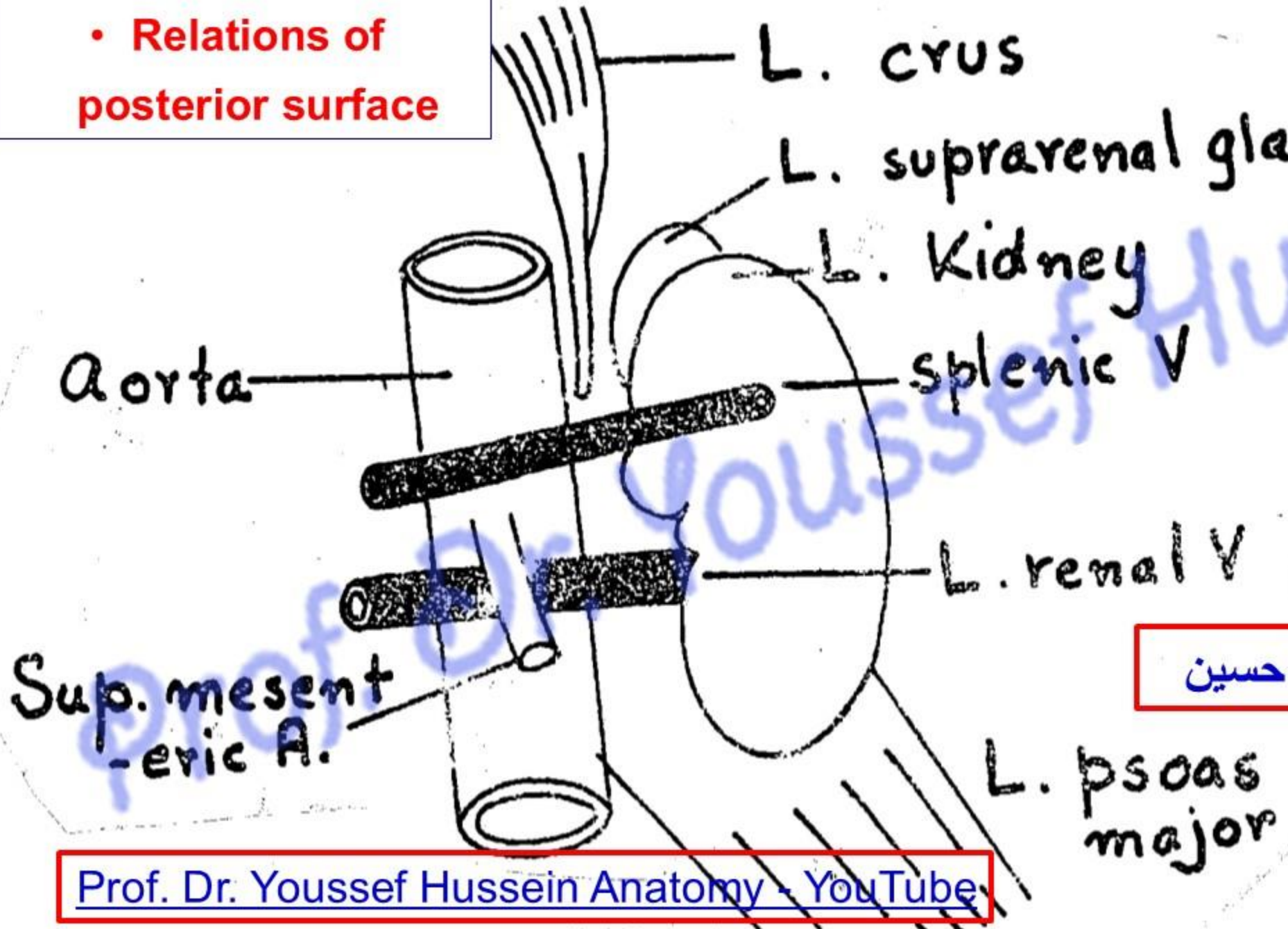
Stomach

- **Relations of anterior surface of body of pancreas**
 - Posterior surface of stomach.
 - Cavity of the lesser sac.

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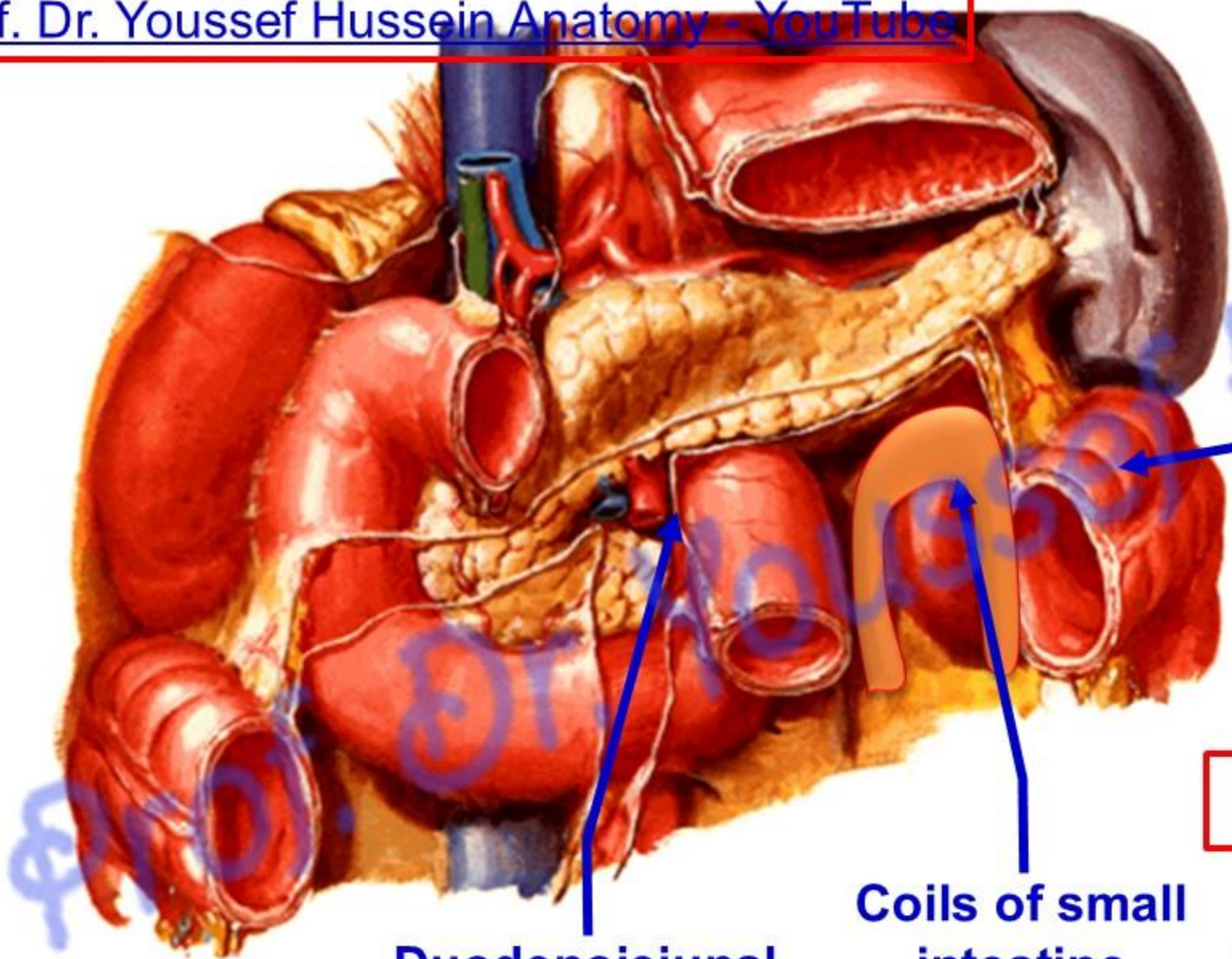
• Relations of posterior surface



- 2 Organs
- 2 Arteries
- 2 veins
- 2 muscles

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• Relations of inferior surface of body of pancreas

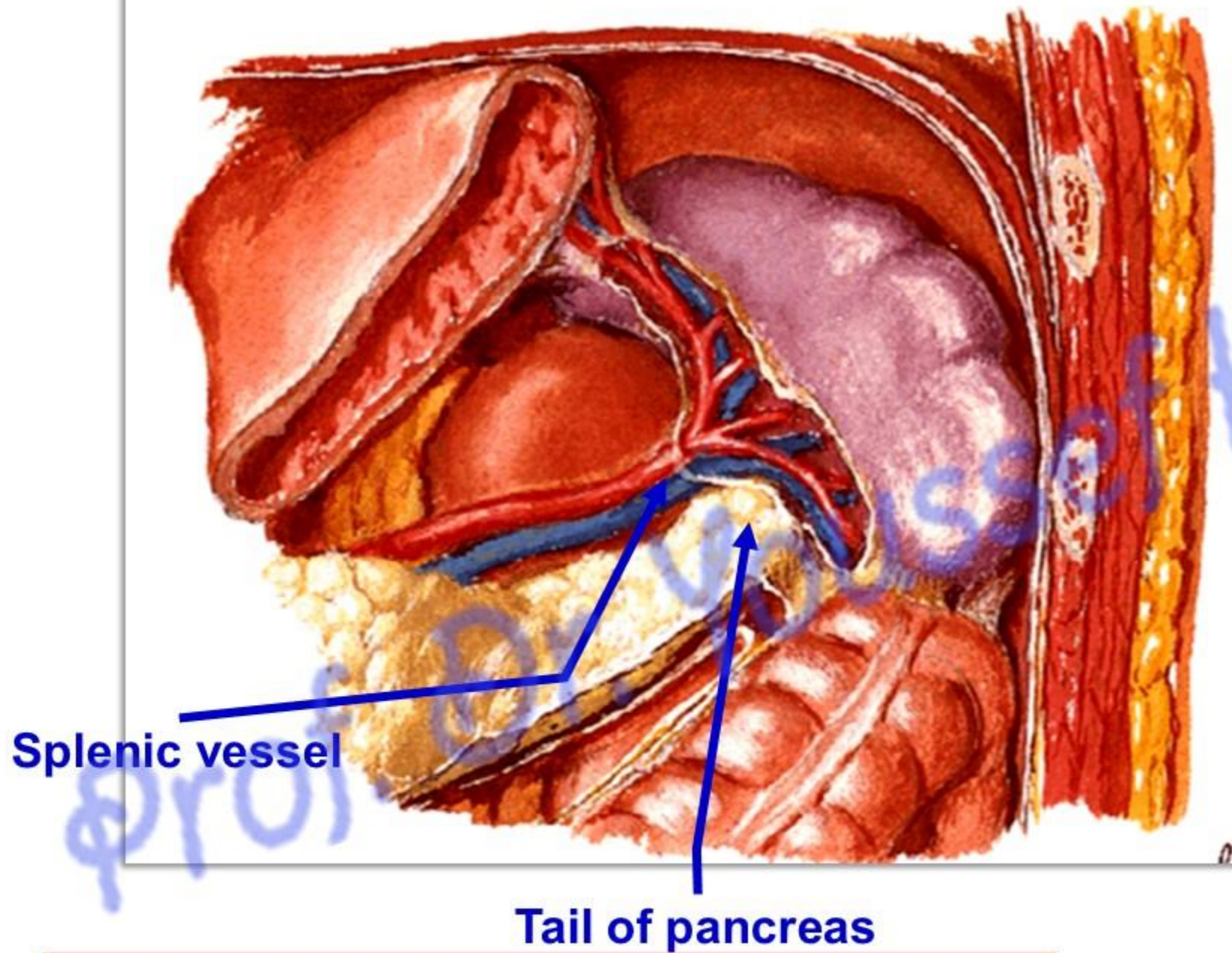


Left colic flexure

Duodenojejunal flexure

Coils of small intestine

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Tail of pancreas passes between two layers of lienorenal ligament to the spleen with splenic vessel.

Splenic vessel

Tail of pancreas

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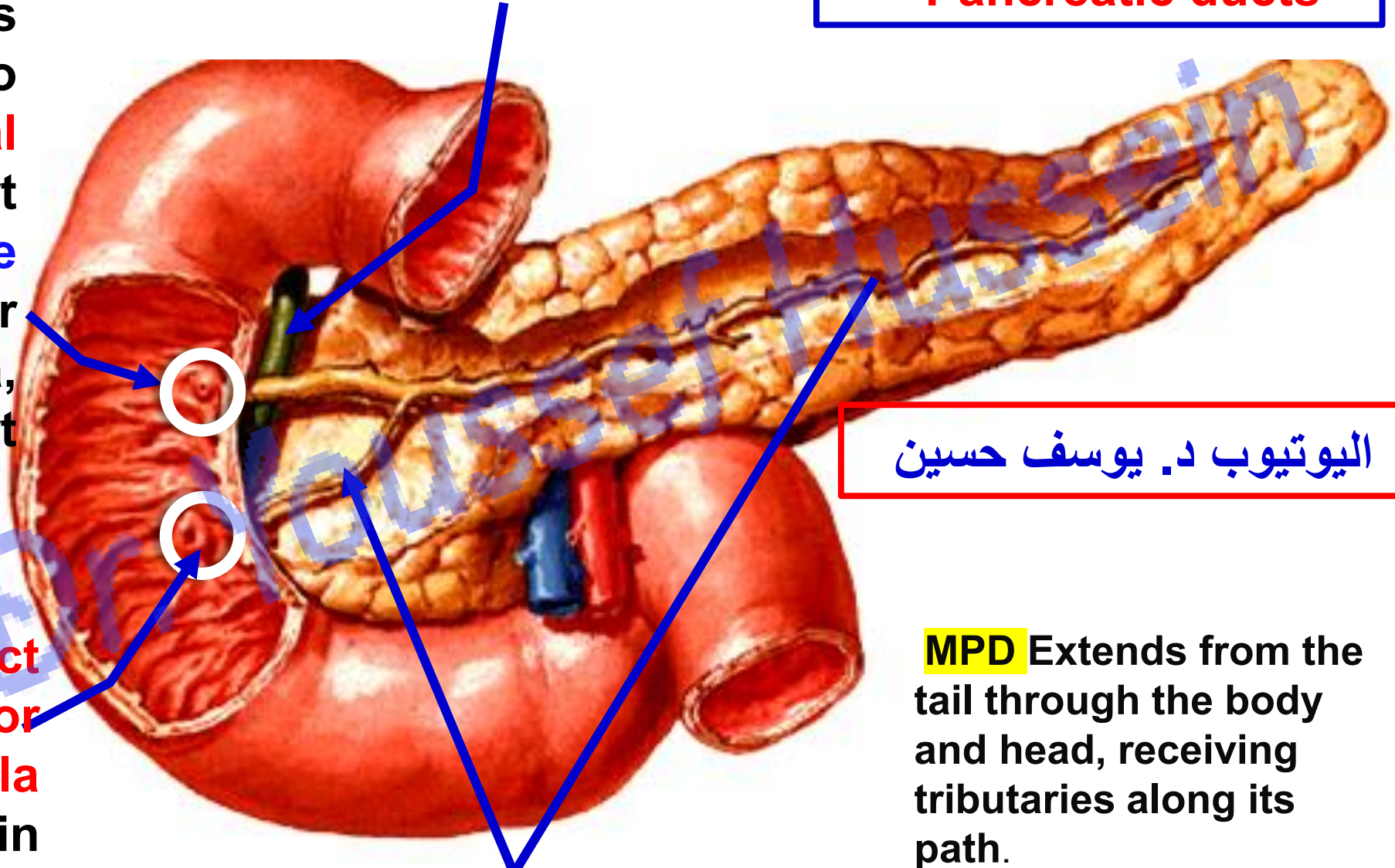
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Accessory pancreatic duct (Santorini's Duct) opens into **minor duodenal papilla** in the 2nd part of duodenum, **one inch above** major duodenal papilla, drains the upper part of the head.

Hepatopancreatic duct that opens into **major duodenal papilla** (ampulla of Vater) in the 2nd part of duodenum

Common bile duct

• **Pancreatic ducts**

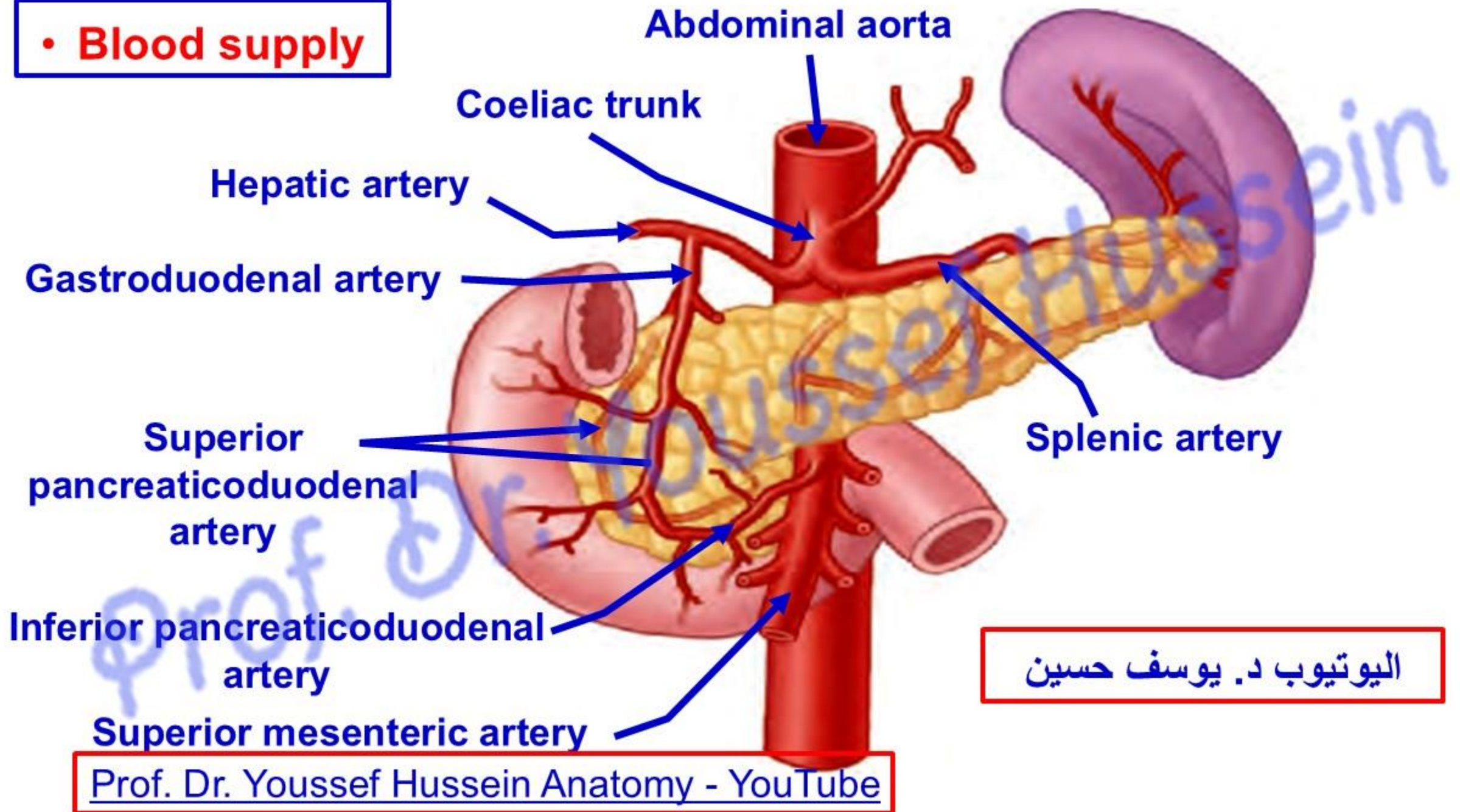


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Main pancreatic duct (duct of Wirsung) begins in the tail

MPD Extends from the tail through the body and head, receiving tributaries along its path.

• **Blood supply**



- **Blood supply**

**** Arterial supply**

- 1- Pancreatic branches of the splenic artery.
- 2- Superior pancreaticoduodenal artery branch of gastroduodenal artery.
- 3- Inferior pancreaticoduodenal artery branch of superior mesenteric artery.

**** Venous drainage**

- 1- Pancreatic branches drain into the splenic vein.
- 2- Pancreaticoduodenal vein drains into superior mesenteric vein.

**** Vessels related to the pancreas;**

- 1- Aorta.
- 2- Splenic vessels
- 3- Superior mesenteric vessels.
- 4- Superior and inferior pancreaticoduodenal vessels
- 5- I.V.C.
- 6- Two renal veins.
- 7- Portal vein.

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- **Clinical notes**

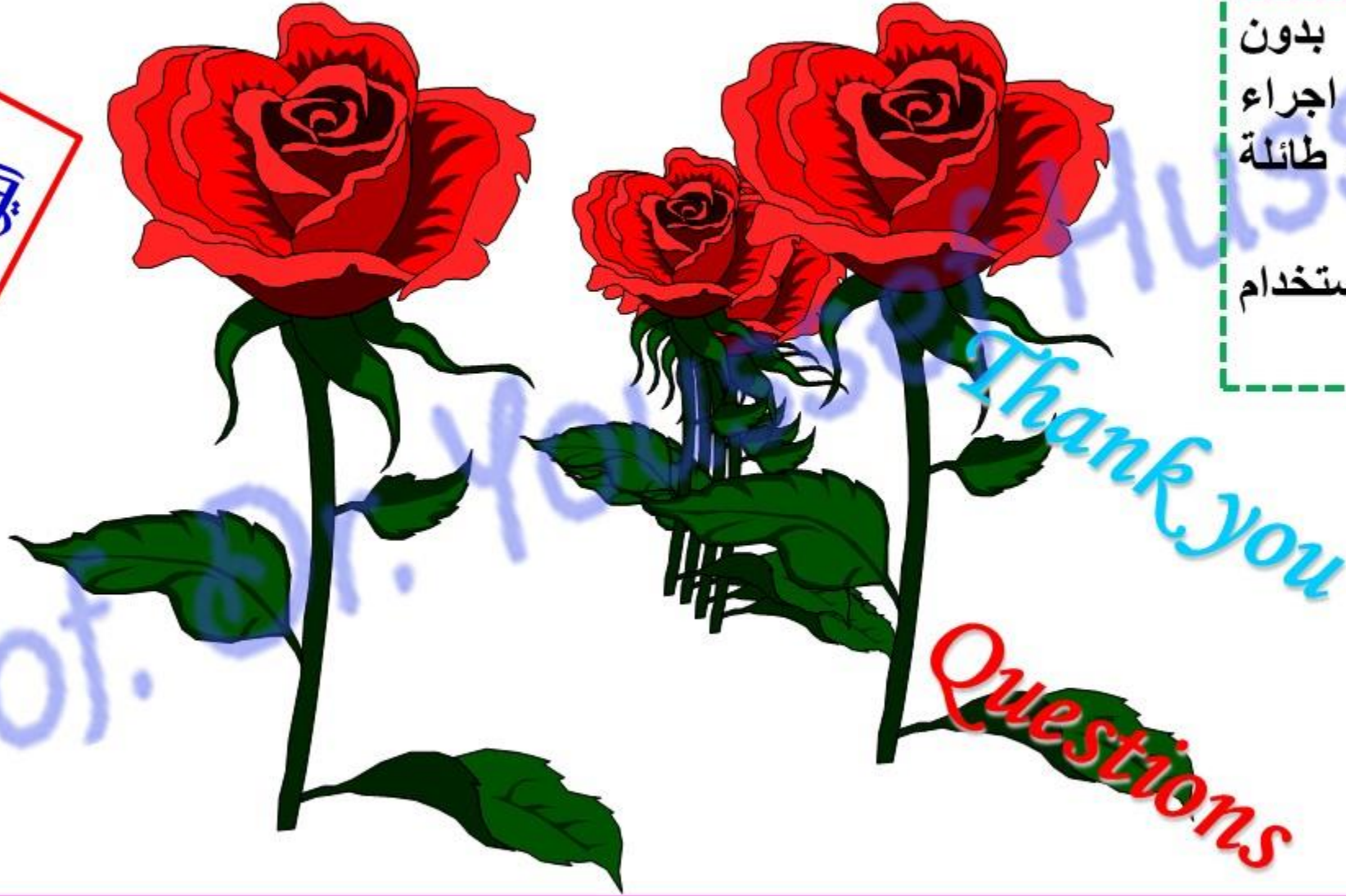
- **Pancreatic cancer:** causes severe abdominal pain and severe back pain, severe jaundice, it is lethal
- It has the potential to invade into the adjacent organs
- It is extremely difficult to treat but may be treated by a surgical resection called a pancreaticoduodenectomy or **Whipple's procedure**.
- **Diabetes mellitus** is characterized by hyperglycemia
 - **There are two types of diabetes**
- **Type I diabetes** (**insulin-dependent diabetes**) in which the pancreatic cells produce an **insufficient amount** of insulin;
- **Type II diabetes**, results from **insulin resistance** of target tissues (a condition in which body fails to properly use insulin or fails to respond properly to insulin action).
- **Diabetes symptoms:** polyuria (excessive secretion of urine), polydipsia (thirst), weight loss, tiredness, infections of urinary tract, and blurring of vision. **Later**, causes diabetic retinopathy, neuropathy, kidney failure, heart disease, stroke, and limb disease.

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