



Anatomy || Lab  
Done by : maya alrefae

﴿ فَصَبْرٌ جَمِيلٌ ﴾ ٨٣

Patience is beautiful.

بالبداية هاد ملخص لأهم الاشياء من وجهة  
نظري ومو شامل للتفاصيل بالتوفيق  
ادعولي. 

# Salivary glands:

- Parotid gland:
- Position
  - Notice the fascial nerve branches
  - Contents of gland
  - Parotid duct = 5cm
  - Relations and innervation



① position: it's located below external auditory meatus, behind the ramus of mandible, in front of sternocleidomastoid muscle.

② parotid duct: emerges from anterior border of the gland and passes forward over lateral surface of masseter [crossing masseter & piercing buccinator], at end opens in the vestibule of mouth at level of upper second molar teeth.

③ Facial nerve: leaves skull through stylomastoid foramen at the base of skull, it enters directly to parotid gland where it divided into 5 branches:

- ① temporal
- ② zygomatic
- ③ buccal
- ④ mandibular
- ⑤ cervical

(علوية مهمة) ⇒ Facial nerve doesn't innervate the parotid gland it just passes through it.

Innervation ⇒ ① Parasympathetic ⇒ glossopharyngeal nerve and gives a branch - tympanic branch, lesser petrosal (preganglionic parasympathetic nerve, and auriculotemporal nerve its postganglionic c. ↓ sensory one

② sympathetic ⇒ external carotid artery and its terminal branches (maxillary + superficial artery)

Relation ⇒ behind it: sternocleidomastoid muscle  
⇒ in front it: the ramus of mandible  
⇒ superiorly: external acoustic meatus  
⇒ posteriorly: zygomatic arch

Contents ⇒ ① external carotid artery (most deep)  
② retromandibular vein  
③ the origin of extracranial part of facial nerve (VII) most superficial.  
④ Auriculotemporal nerve  
⑤ parotid lymph node

⑥ lymphatic vessel

→ Submandibular divided into superficial & deep by mylohyoid muscle.

- **Innervation:**
- ① sensory : lingual nerve
  - ② Sympathatic: external carotid artery and its branches
    - ① lingual artery 2) branch from facial artery
  - ③ parasympathatic : Chorda tympani (taste fiber)

**Submandibular gland:**

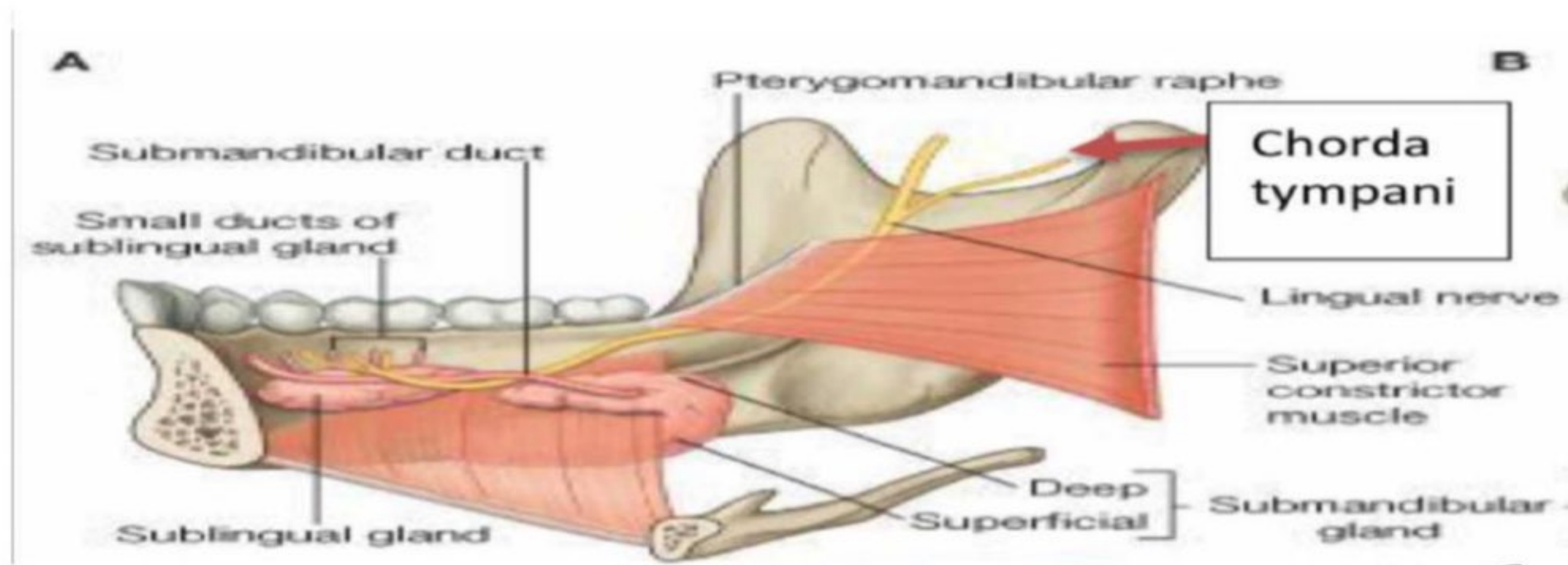
Divided into superficial & deep lobe by the mylohyoid muscle

Relations and innervation

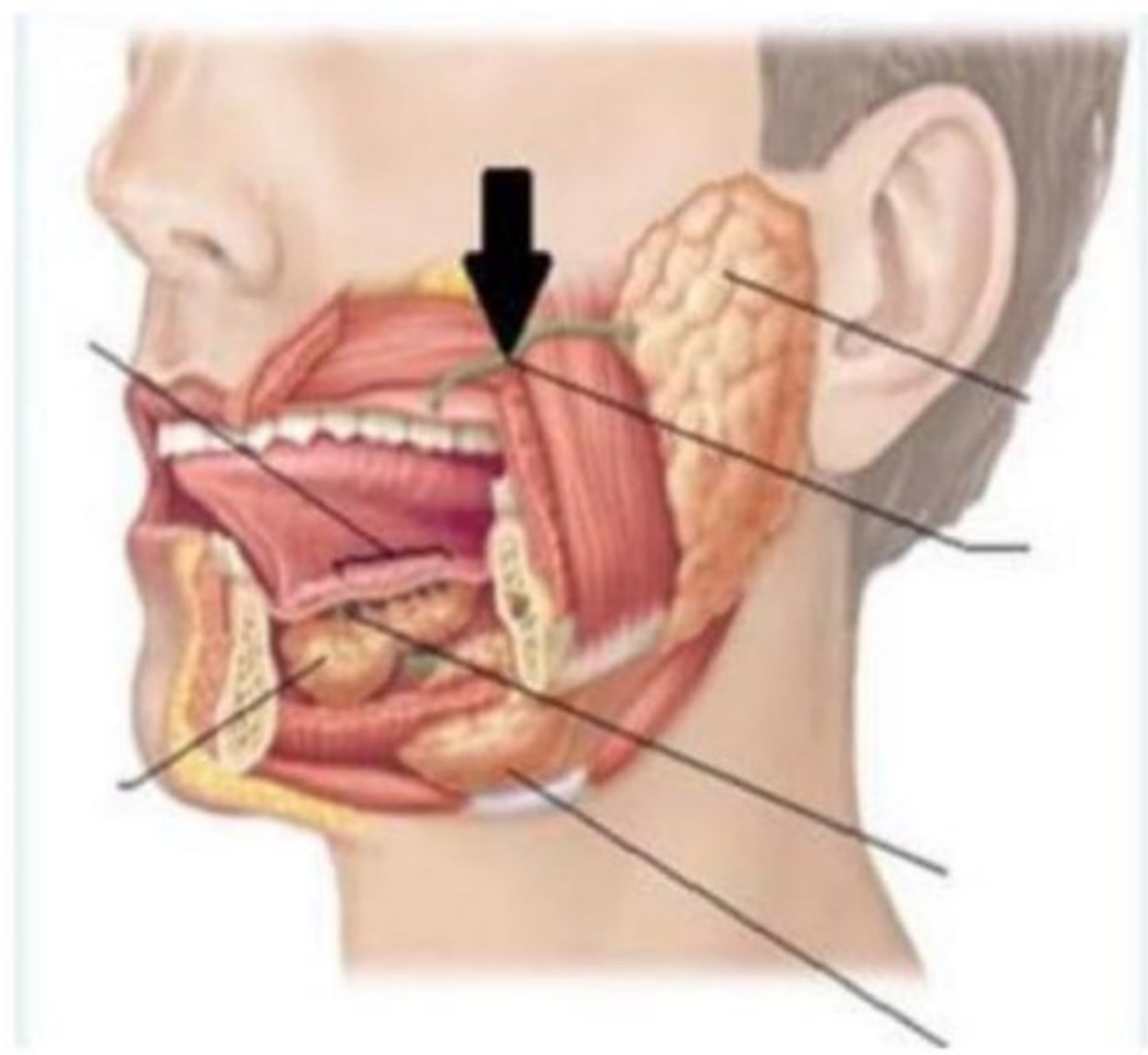
**Sublingual gland:**

Located under the tongue

Relations and innervation



⇒ lingual nerve has triple relation with submandibular duct: it passes lateral ⇒ below ⇒ medial  
 ⇒ lingual nerve medial to submandibular gland



49) The pointed structure piercing which one of the following muscles:

- A) Lateral pterygoid.
- B) Buccinator.**
- C) Mylohyoid.
- D) Medial pterygoid.
- E) Masseter.

→ crossing masseter ↓ piercing Buccinator.

→ what's medial to sublingual gland :

Lingual nerve.

(Q this structure lateral to inguinal ring?

Inferior epigastric artery.

Inguinal Hernia		
	Direct	Indirect
Age	Common on old	young
Bilaterally	Usually bilateral	unilateral
Shape	Hemispherical	Oval
Reaches scrotum	never	Can reach the scrotum
Direction of descent	Forwards	Downwards , forwards medially
Reduction	backward	Upward, backward laterally
Relation to inf. epigastric art.	Medially	Laterally
Superficial inguinal ring test	Feel impulse on the side finger	Feel an impulse on the tip of the finger
Deep ring test	Hernia appears	Hernia does not appear
Reduction of hernia, put thumb over deep ring, ask patient to cough		
Coverings	1- Lat. To lat. Umbilical lig Same as indirection 2- Med. To lat	Skin, superficial fascia, Ex.sp.fascia, cremasteric muscle & fascia. Int spermatic fascia

**Inguinal canal:**

- 4 cm long
- Extend from deep inguinal ring, downward and medially to superficial inguinal ring
- Lies above inguinal ligament
- Deep inguinal ring:** oval opening in fascia transversalis
- On its edge. Give attachment to internal spermatic fascia
- Position: 1/2 inch above inguinal ligament (between ASIS and pubic symphysis)
- Superficial inguinal ring**
- Triangular defect in external muscle aponeurosis
- On its edge, give attachment for external spermatic fascia
- Boundaries:**
- Anterior wall:** external oblique aponeurosis
- Posterior wall:** fascia transversalis
- Floor:** inguinal ligament and on its medial side the lacunar ligament
- Roof:** arching lower fibers from internal oblique and transversus abdominis muscles
- Contents:**

  - 1- Spermatic cord and its content in males
  - 2- Round ligament in females
  - 3- Genital branch of genitofemoral nerve
  - 4- Ilioinguinal nerve (enter the canal through posterior wall)

# Esophagus:

>has thoracic part and abdominal part

## >Relations of thoracic part:

**Anteriorly:** trachea, left recurrent laryngeal n., left bronchus, pericardium

**Posteriorly:** thoracic vertebra, thoracic duct, azygous vein, Rt posterior intercostal arteries, descending thoracic aorta

**Right side:** The right mediastinal pleura and the terminal part of the azygos vein

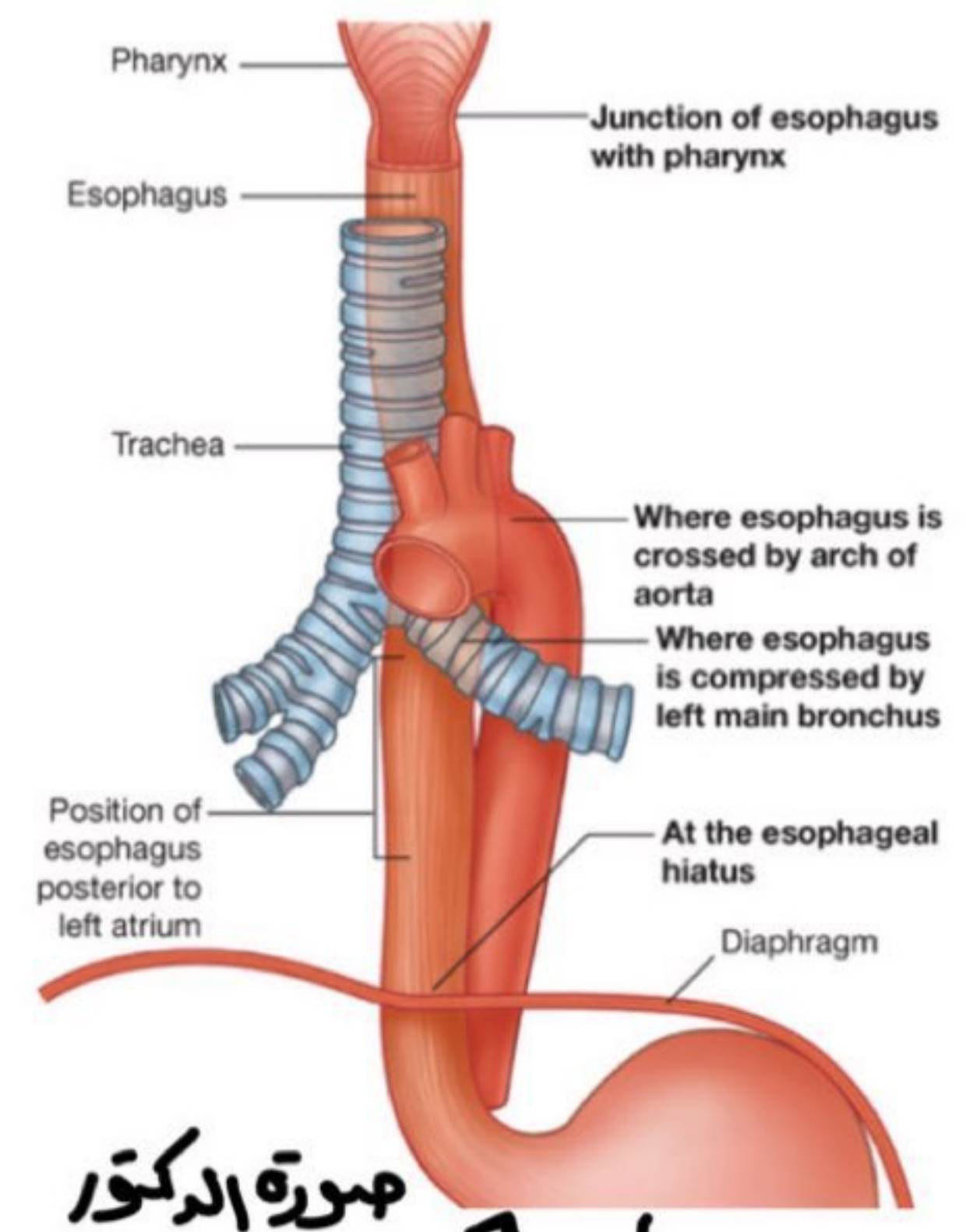
**Left side:** The left subclavian artery, the aortic arch, the thoracic duct, and the left mediastinal pleura and lung.

## >Relations of abdominal part:

1-Anteriorly: left lobe of the liver & left vagus nerve

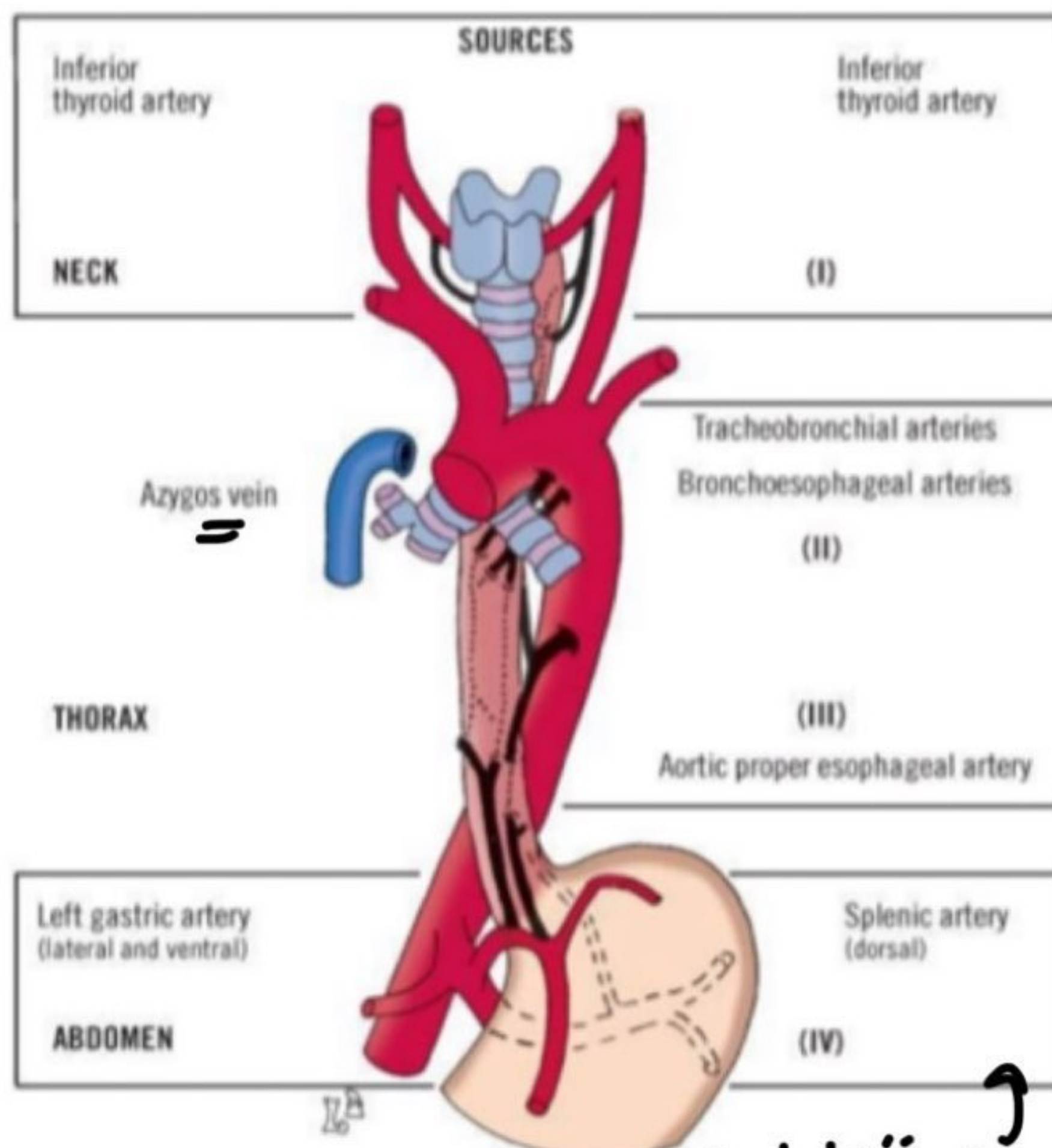
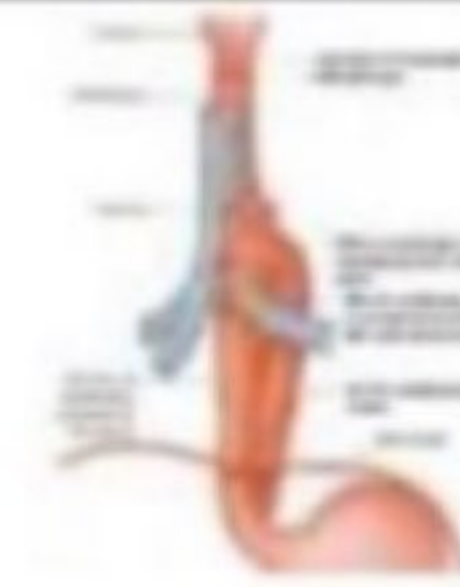
2-Posteriorly: left crus of the diaphragm & right vagus nerve

>blood supply of esophagus:



6- one of the following isn't located left to the esophagus:

Left main bronchus → it's anterior to it.



upper third ⇒ inferior thyroid artery  
vein ⇒ " " vein  
lymph ⇒ deep cervical nodes

middle third ⇒ Descending thoracic aorta  
vein ⇒ azygoes vein  
lymph ⇒ anterior & posterior mediastinal

lower third ⇒ Branches from left gastric artery

veins ⇒ left gastric vein & tributary of portal vein

lymph ⇒ left gastric blood vessels & celiac nodes.

## \* Duodenum

(سؤالين باسنة واضح الدكتور محتم)

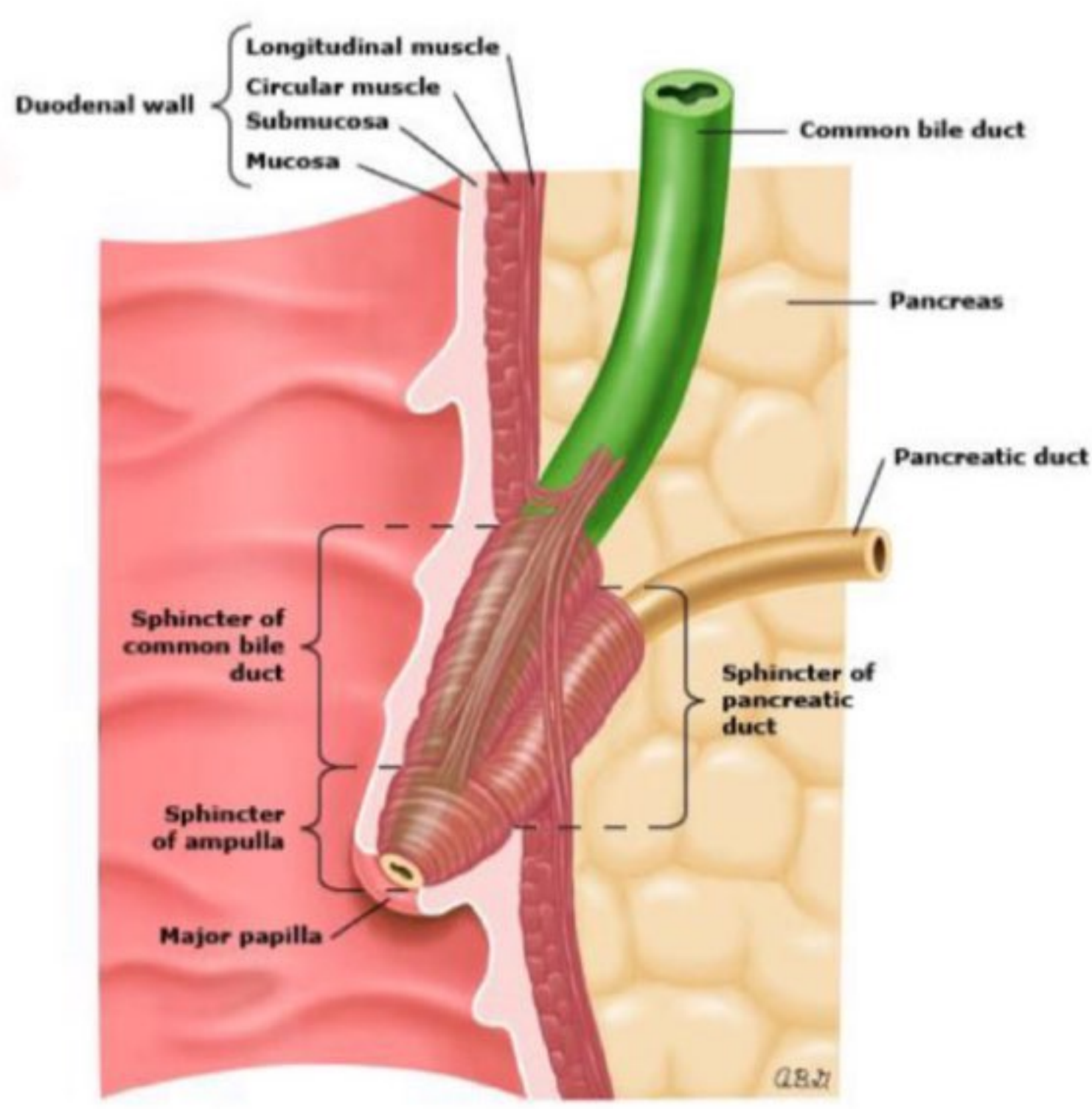
>The duodenum is C shaped tube, is about 25cm (10 inches) and is **retroperitoneal** except the **first and last inches**.

>The common bile duct and the pancreatic duct have the same opening in the duodenum. When they meet, they form a bulge in the duodenal wall called **ampulla of vater**.

> Around it is a sphincter called **sphincter of Oddi (a smooth muscle)**.

>We call the opening from inside the **major duodenal papilla**, sometimes there is another opening 1 inch above the major papilla for accessory pancreatic ducts called **minor duodenal papilla**.

> The duodenum is situated in the epigastric and umbilical regions.



## Parts of duodenum and relations:

### First part of duodenum (2inches)

>The first part begins from the pyloduodenal junction. At the level of the transpyloric line.

>Runs upward and backward at the level of the 1 st lumbar vertebra 1 inch to the right.

#### Relations of the first part:

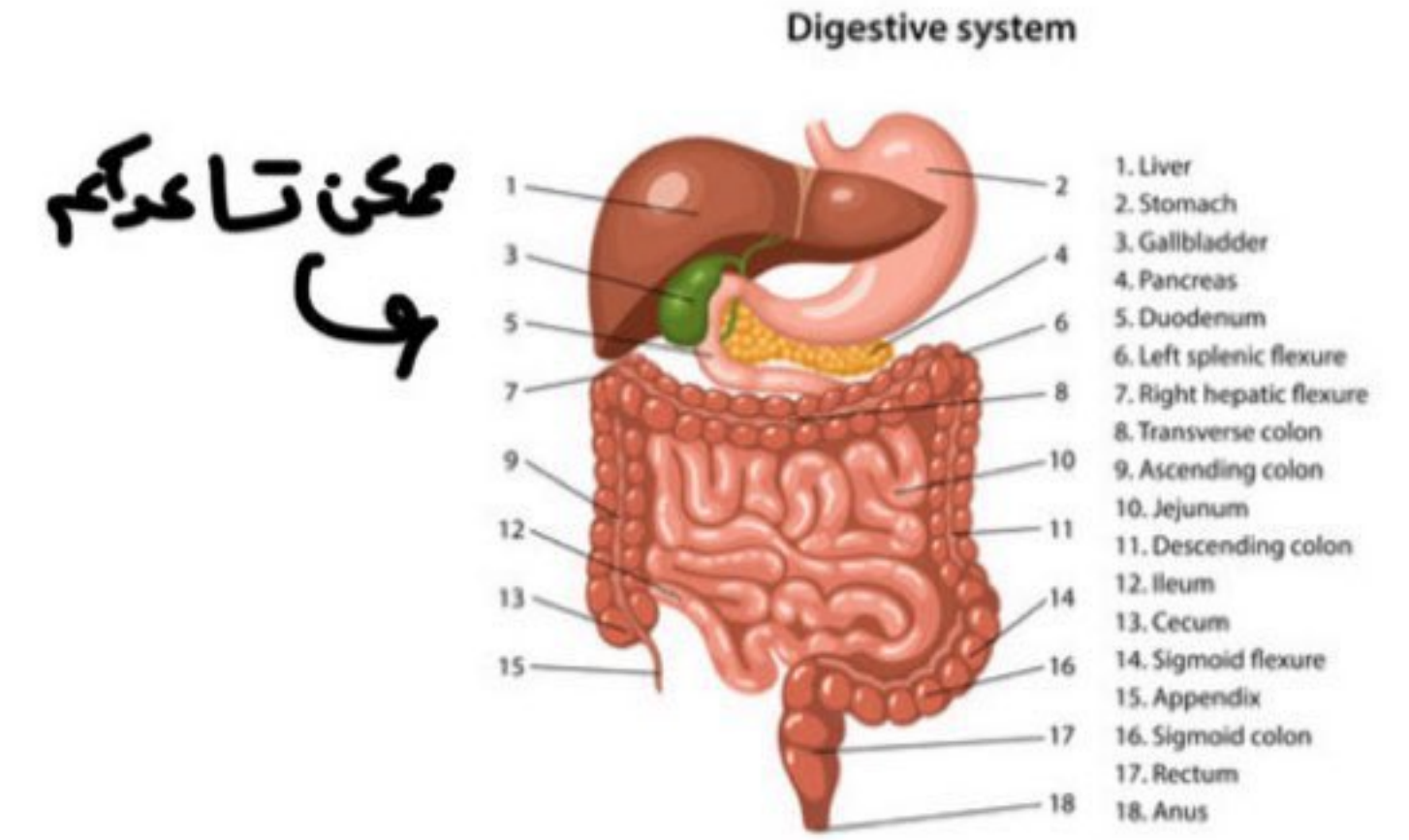
- Anteriorly: The liver (quadratus lobe), The gall bladder
- Superiorly: The epiploic foramen
- Posteriorly: The lesser sac, the bile duct, the portal vein, Inferior vena cava **gastroduodenal Artery** (if there is a peptic ulcer on the posterior wall of the 1st inch perforation and infiltration may occur along with bleeding from this artery)
- Inferiorly: The head of the pancreas

### Second part of duodenum (3inches)

Importance of the 2nd part: it receives the common bile and pancreatic ducts.

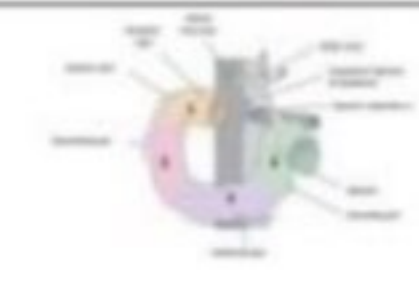
#### Relations of the second part:

- Anteriorly: The gallbladder (fundus), the right lobe of the liver, the transverse colon, the coils of small intestine
- Posteriorly: Hilum of the right kidney, the right ureter
- Laterally: Right colic flexure, ascending colon, right lobe of the liver
- Medially: Head of the pancreas, Bile and pancreatic ducts



سوال  
اقتباس

7- related to the 3<sup>rd</sup> part of the duodenum posteriorly:  
Right ureter



### Third Part of the Duodenum(4inches)

Runs horizontally to the left, in front of the vertebral column. On the subcostal plane.

#### Relations of the third part:

- Anteriorly: The root of the mesentery of the small intestine, the superior mesenteric vessels contained within the mesentery coils of the jejunum
- **Posteriorly: The right ureter**, the right psoas muscle, the inferior vena cava, the aorta
- Superiorly: The head of pancreas
- Inferiorly: Coils of jejunum

### forth Part of the Duodenum (1inch)

>Runs upward to the left

>Ends in the duodenojejunal junction at the level of the 2nd lumbar vertebrae 1 inch to the left.

>The junction (flexure) is held in position by the ligament of Treitz, which is attached to the right crus of the diaphragm (duodenal recess).

#### Relations of the fourth part:

- Anteriorly: The beginning of the root of the mesentery, Coils of the jejunum
- Posteriorly: Left psoas major muscle, The sympathetic chain on the left margin of the aorta
- Superiorly: Uncinate process of the pancreas

>Blood supply: upper half>>> superior pancreaticoduodenal artery

Lower half>>>inferior pancreaticoduodenal artery

>venous drainage: upper half>>> portal vein

Lower half>>> superior mesenteric vein

>Lymphatic drainage: via pancreaticoduodenal nodes>>> gastroduodenal node>> celiac nodes

Pancreaticoduodenal nodes>>>superior mesenteric nodes

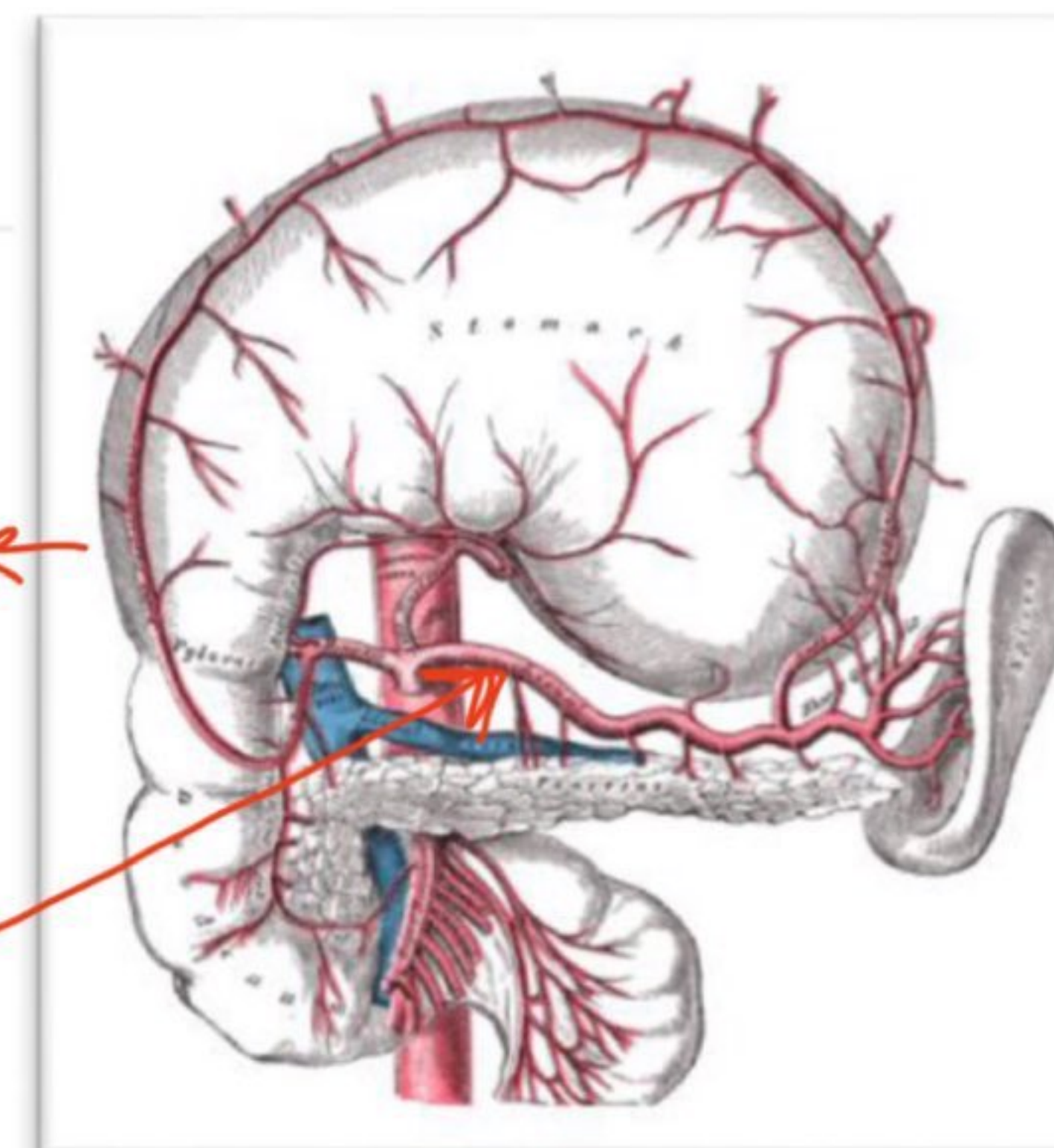
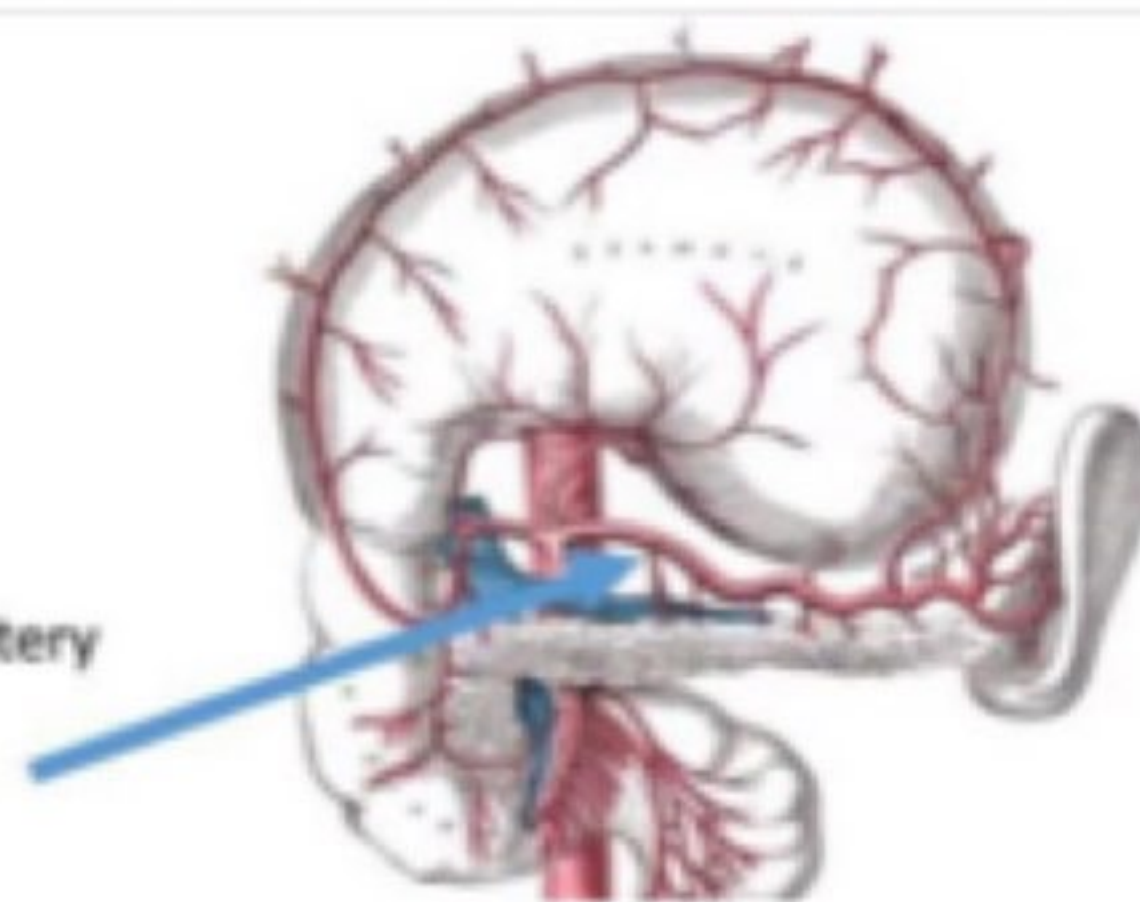
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13) the pointed artery is Pic

a-celiac artery

b-splenic artery

c-superior pancreaticoduodenal artery d-gastroduodenal artery



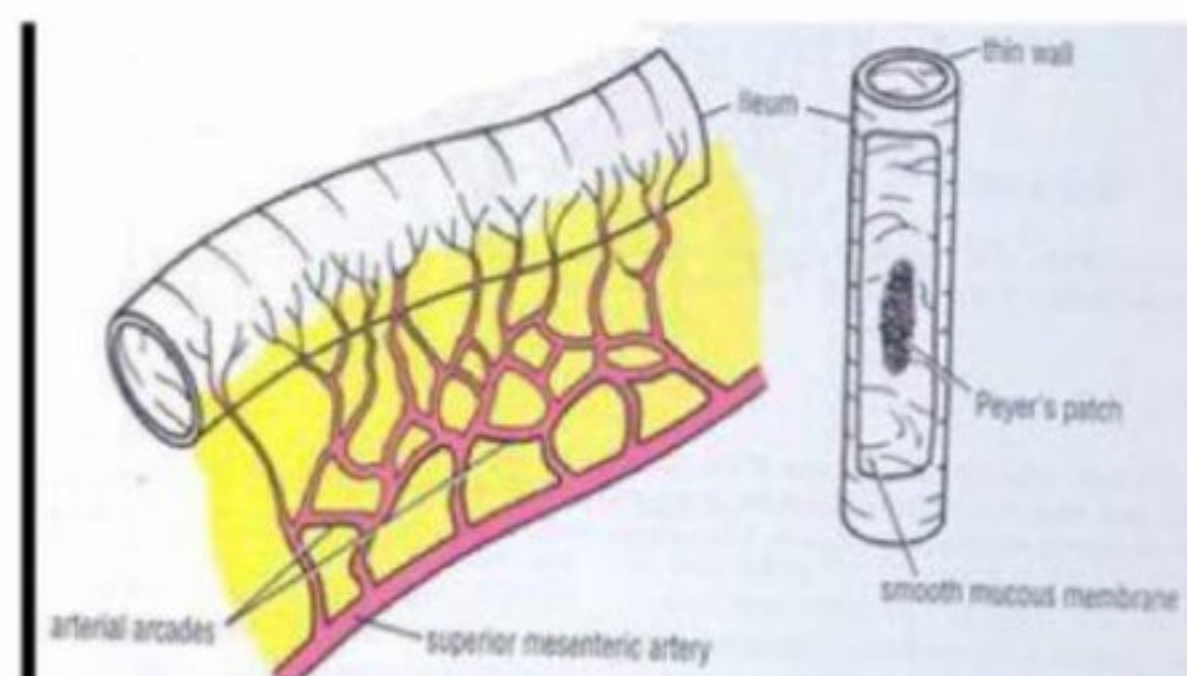
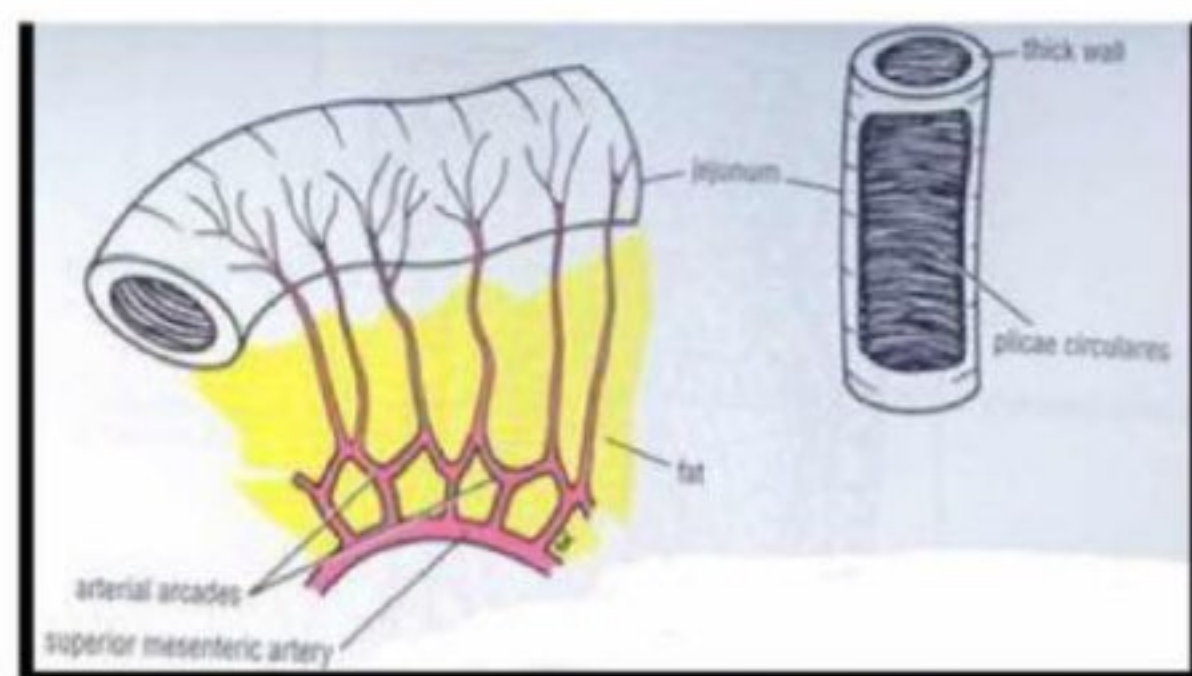
>Identify the root and content of the small intestine mesentery

>Blood supply: branches of superior mesenteric artery, ileocolic artery (the lowest part of ilium)

>veins: superior mesenteric vein

>Lymphatic drainage: superior mesenteric nodes

توضيح: هي الصورة وهاد الموضوع  
عاليه أي سؤال بامت  
فقرأة الموضوع بس .  
ويجب ان يمل skip (ت)



	JEJUNUM	ILEUM
LENGTH	Shorter (proximal 2/5)	Longer (distal 3/5)
DIAMETER	Wider	Narrower
WALL	Thicker (more plicae circulares)	Thinner (less plicae circulares)
APPEARANCE	Dark red (more vascular)	Light red (less vascular)
VESSELS	Less arcades (long terminal branches)	More arcades (short terminal branches)
MESENTERIC FAT	Small amount near intestinal border	Large amount near intestinal border
LYMPHOID TISSUE	Few aggregations	Numerous aggregations (Peyer's patches)

# LIVER:

Present in the right hypochondriac region and epigastric region (left lobe) and extend to left hypochondrium.

Surrounding by the diaphragm anteriorly, above and posteriorly.

**It has 5 surfaces:** Anterior, posterior, superior, right & visceral.

## Lobes of the liver

- Rt. Lobe
- Lt .lobe
- Quadrate lobe
- Caudate lobe

The following structures forming an “H shape”, divide the liver into the previously mentioned 4

## Lobes:

1. Right sagittal fossa - groove for inferior vena cava superiorly and gall bladder inferiorly
2. Left sagittal fissure - contains the ligamentum venosum superiorly and round ligament of liver (lig. Teres) inferiorly
3. Transverse fissure (porta hepatis)

## Peritoneum of the liver

- The liver is covered by peritoneum (intraperitoneal organ) except at bare area → so can be considered “Interperitoneal”

## Ligament s of the liver:

### Falciform ligament:

Separate the right lobe from the left lobe

Attached to the anterior abdominal wall and to the diaphragm.

Divide the superior space above the diaphragm into right and left subphrenic (the abscess reaches the right subphrenic space which is open into the right gutter).

Free border of the ligament contains Ligamentum teres (obliterated umbilical vein)



**Coronary ligament:**

the area between upper and lower layer of the coronary ligament is the bare area of liver which contract with the diaphragm to the bare area.

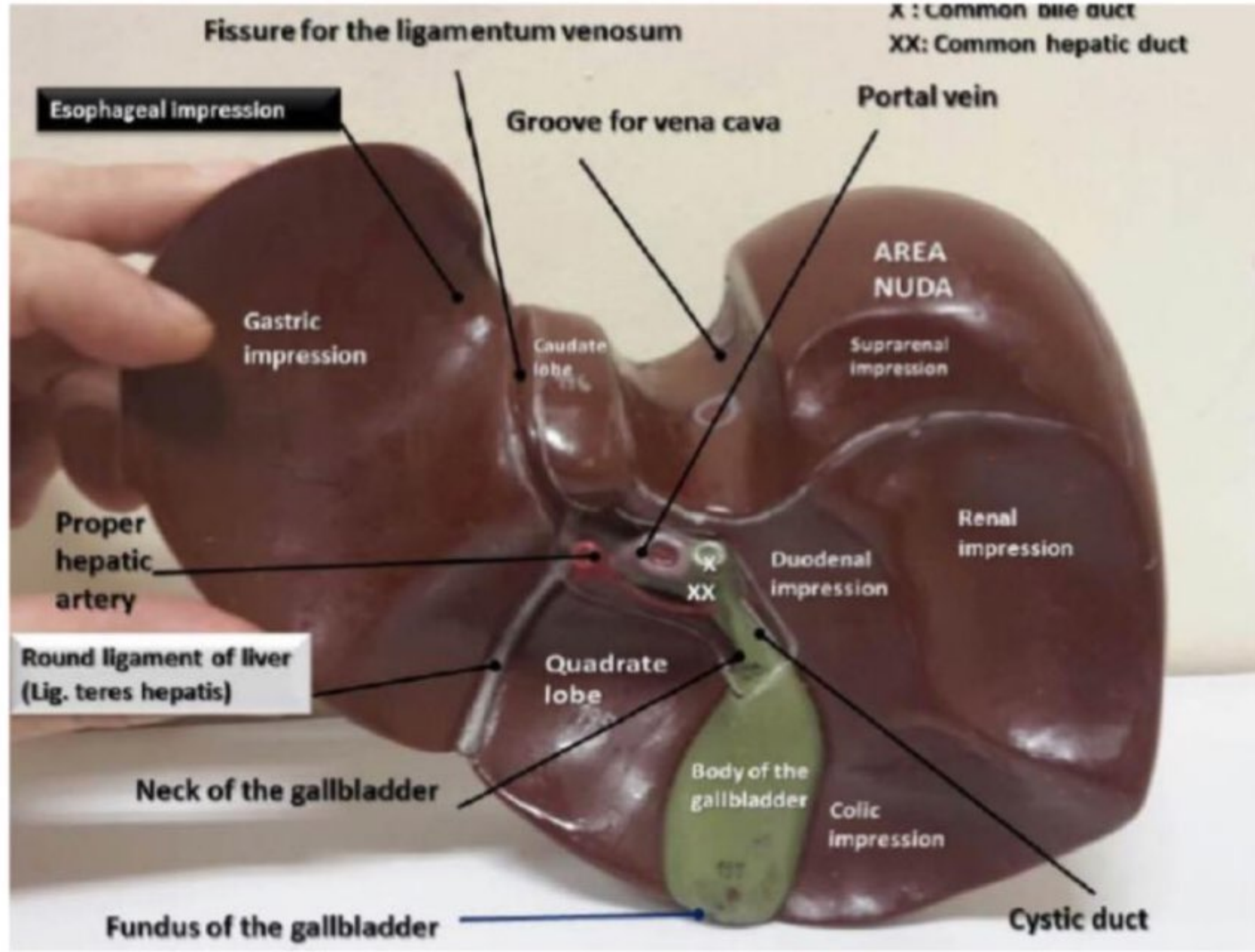
Give arise to the right and left triangular ligaments at the sides of the liver.

**Ligamentum venosum:**

Between the caudate and left lobes.

Attached to lesser omentum.

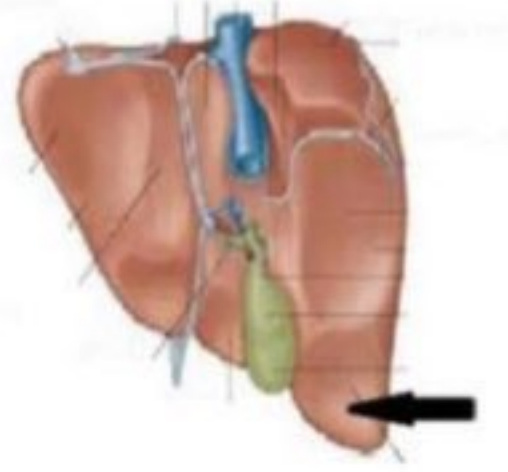
**IMPRESSIONS OF THE LIVER (important) ☆ ☆**



57) Identify the pointed impression:

- A) Gastric.
- B) Pyloric.
- C) Duodenal.
- D) Colic.
- E) Renal.

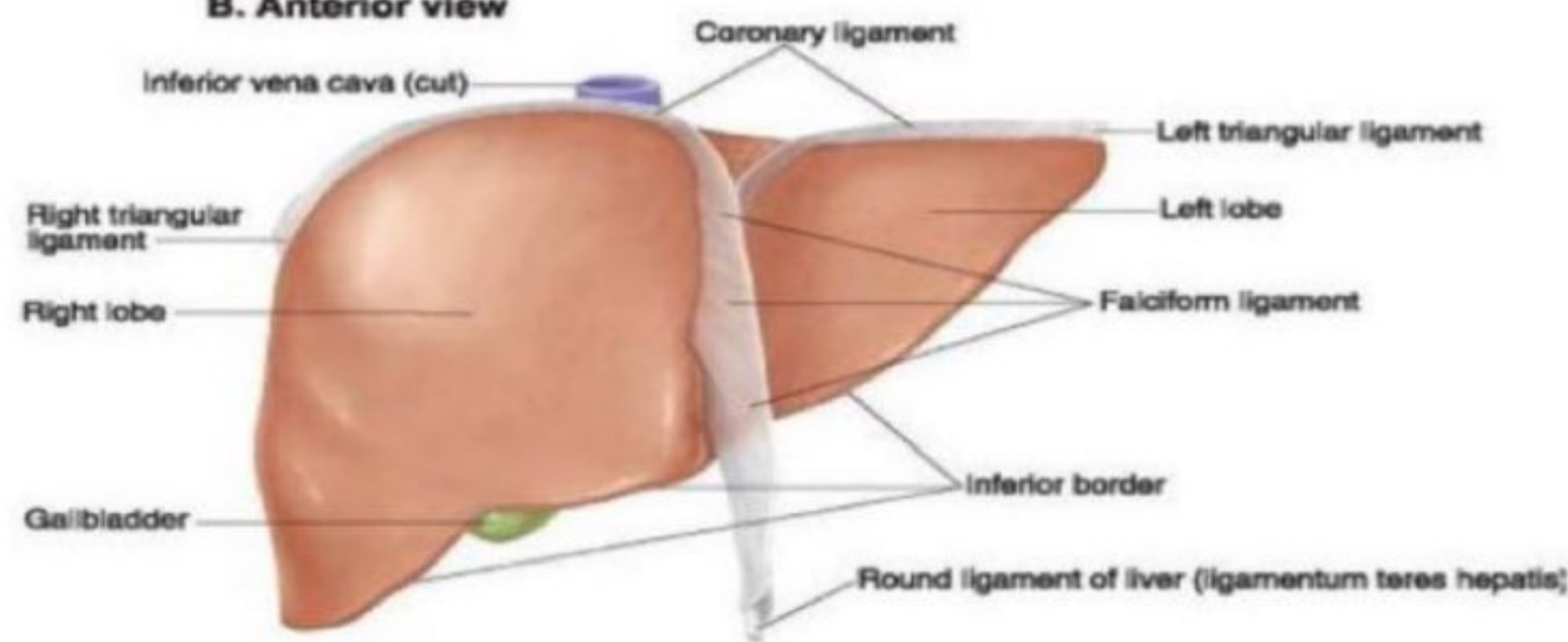
Answer: D



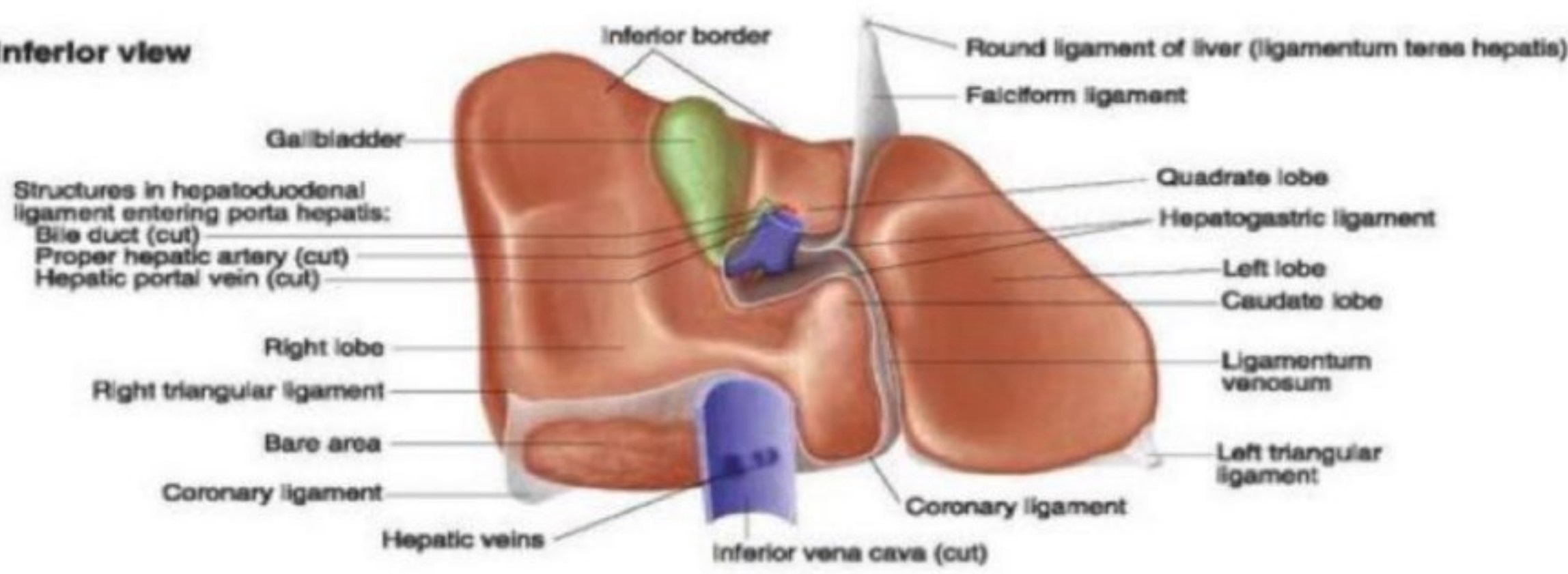
**A. Orientation**



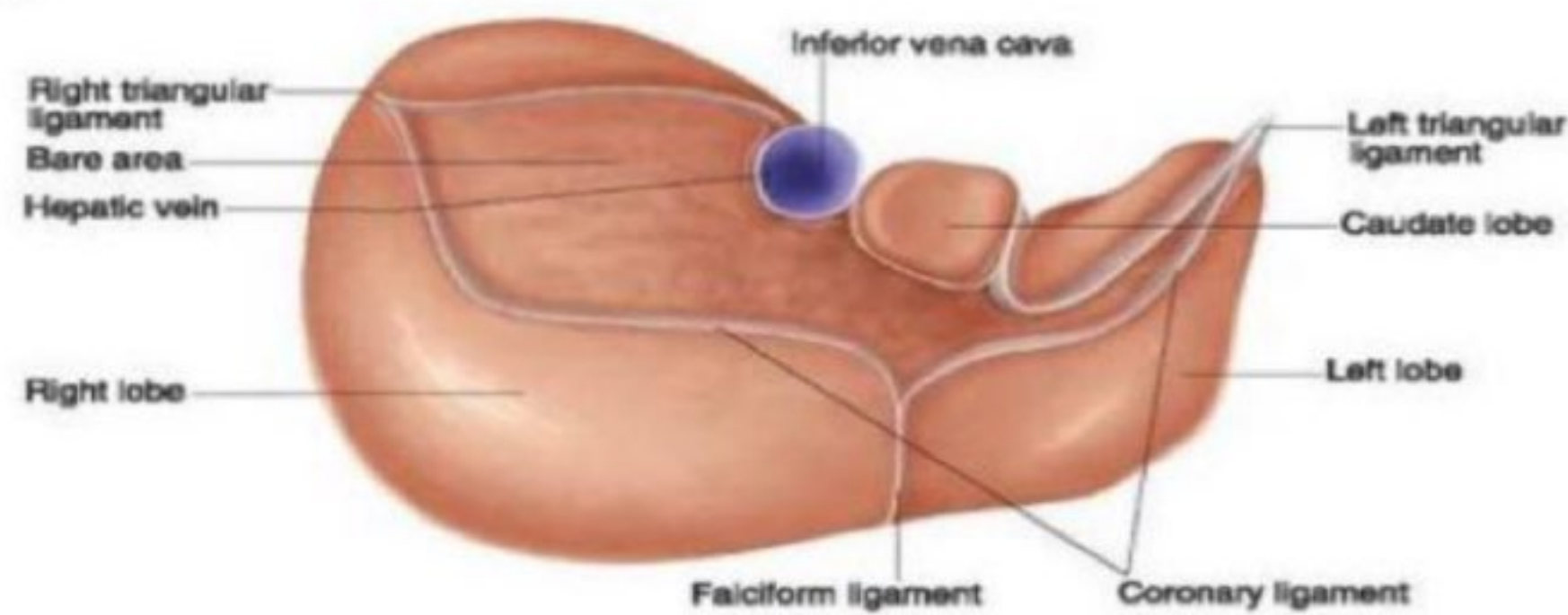
**B. Anterior view**



**C. Inferior view**



**D. Superior view**



## Relation of the liver (important)

Anteriorly: Diaphragm, Rt & Lt pleura and lung, Costal cartilage, Xiphoid process, Ant. abdominal wall

Posterior: Diaphragm, Rt. Kidney, Supra renal gland, T.colon(hepatic flexure), Duodenum, Gall bladder, I.V.C, Esophagus, Fundus of stomach

Visceral surface: I.V.C, the esophagus, the stomach, the duodenum, the right colic flexure, the right kidney, Rt. Suprarenal gland, the gallbladder., Porta hepatic (bile duct,H.a.H.V), Fissure for lig. Venosum & lesser omentum, Tubular omentum, Lig.teres

Superior surface: Diaphragm, cut edge of the falciform ligament, the left and right triangular ligaments, The cut edges of the superior and inferior parts of the coronary ligament, I.V.C and the 3 hepatic veins (right, left & middle) → passing through a groove

Right & left liver lobes and the bare area of the liver can be seen from the superior view.

### Relations of Superior surface of liver:

- Diaphragm
- Pleura & lung
- Pericardium & heart

### Porta hepatis:

It is the hilum of the liver

- it is found on the posteroinferior surface
- lies between the caudate and quadrate lobes
- Lesser omentum attaches to its margin

### Contents

- Gallbladder (ant.)
- Hepatic. Art + nerve+ lymphatic node (middle).
- Portal vein ( post.)

## (Gallbladder) ⇒

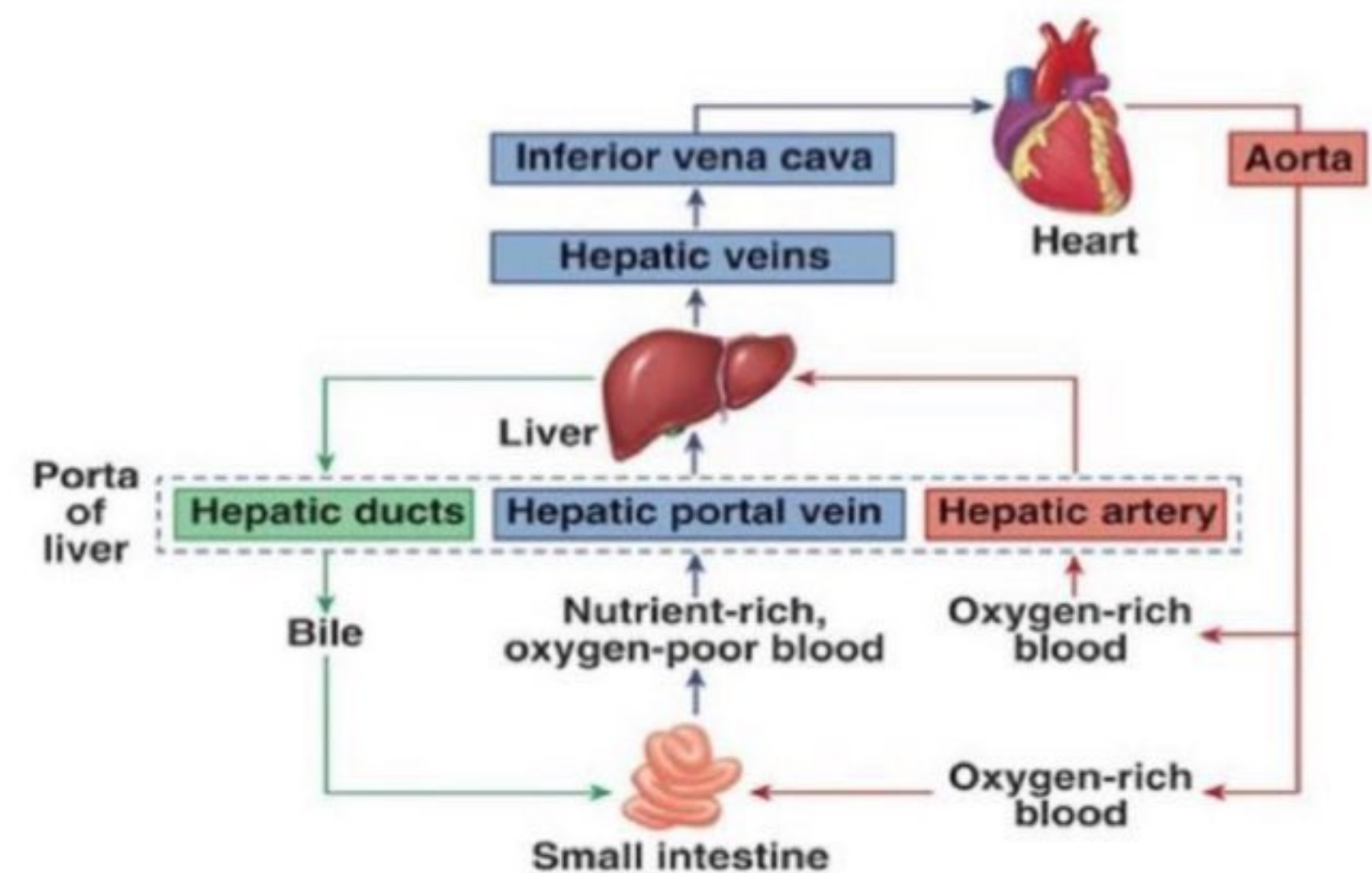
### • Neck

- Forms the **cystic duct** which is **4cm** long
- Body and neck are directed towards porta hepatis

### Common bile duct

- Common bile duct is **7-10cm** long (3 inches)
- Descends in the free edge of lesser omentum

### Blood supply of the liver:



\* ما عتقد الدكتور يجب هيك بس أتعرفنيها من الأناطومي.

# SPLEEN

The spleen is completely covered with peritoneum (intraperitoneal organ)

· Two ligaments

1- the gastrosplenic omentum (ligament): (carrying the short gastric and left gastroepiploic vessels)

2- splenicorenal ligament (carrying the splenic vessels and the tail of the pancreas)

It has two surfaces: 2 Surfaces (Diaphragmatic surface / Visceral surface)

1. Diaphragmatic surface: Has Post- lat. relation, Convex, Smooth, Diaphragm separates it from - Pleura & lung – Ribs 9,10 ,11  
The upper border is lobulated whereas the lower border is rounded.
2. Visceral surface: Has Ant- med. Relations,  
It is divided by a ridge into: anterior or gastric, A posterior or renal portion.

**Spleen has two borders: superior & inferior boarder**

**Two ends: medial & lateral end**

## Hilum of spleen

- Splenic . >>ant
- Splenic . v >>post
- Tail of pancreas

## IMPRESSOINS OF THE SPLEEN:

- Gastric, above the hilum
- Colic (left colic flexure)
- Pancreas, make impression on the hilum

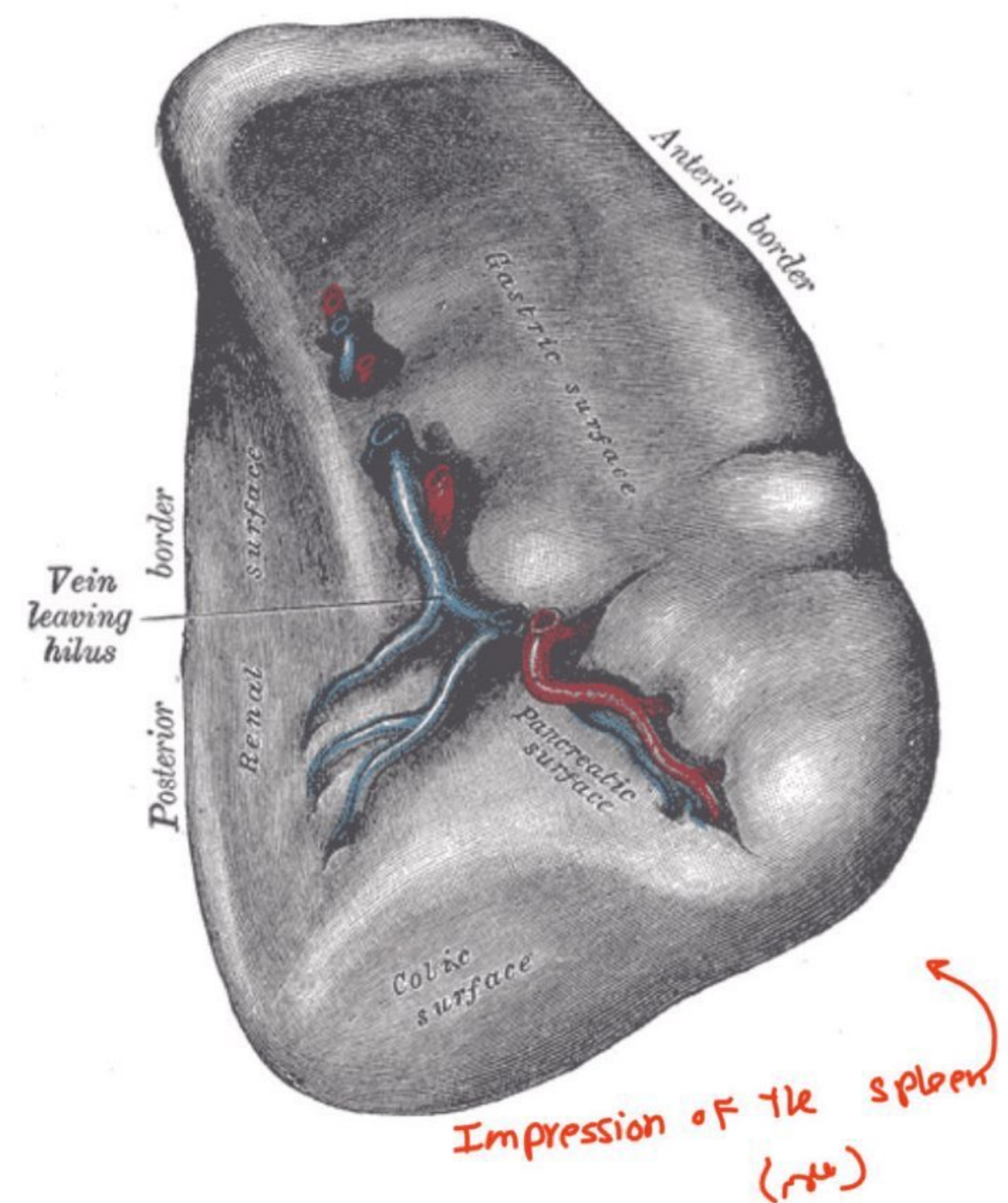
\*Related to the 9th, 10th and 11th ribs and the tenth ribs is parallel to the spleen so when someone has an accident and hurt his ribs we will be afraid from splenic rupture and in case we find it we must do splenectomy (we can remove it since it's a lymphoid tissue).

## Blood supply

- The large splenic artery is the largest branch of the celiac artery.
- It has a tortuous course
- It runs along the upper border of the pancreas
- The splenic artery then divides into about six branches, which enter the spleen at the hilum

## Veins

- The splenic vein leaves the hilum and runs behind the tail and the body of the pancreas.
- Behind the neck of the pancreas, the splenic vein joins the superior mesenteric vein to form the portal vein.



## Appendix:

**Location and Description:** it is a narrow (with a very narrow lumen), muscular tube, containing a large amount of lymphoid tissue (it is considered as lymphatic tissue)

Although it is a part of GI tract (mid gut), it has no role in digestion. It is involved in immunity.

Its length from 3 to 5 inches, another books state from 2 to 22cm; it may be very short or very long due to the variation. (In infection the size is increased due to edema and inflammation)

**It has base, apex and mesoappendix(mesentery):**

-The base is attached to the posteromedial surface of the cecum about 1 in. (2.5 cm) below the ileoceca opening (junction/valve)

-The remainder of the appendix is free.

It has a complete peritoneal covering (intraperitoneal organ), which is attached to the mesentery of the small intestine by a short mesentery of its own, the mesoappendix.

The mesoappendix contains the appendicular vessels, nerves, lymph nodes.

### Position:

The appendix is part of the large intestine, lies in the right iliac fossa, and in relation to the anterior abdominal wall, it may be found in different positions, including:

1. Retrocecal: in retrocecal recess, behind cecum in 74% of people. (most common site).
2. Pelvic: in pelvis related to Rt. Ovary and uterine tube in 21% of people.
3. Subcecal: below cecum in 3.5% of people.
4. Preileal: in front of ileum in 1% of people.
5. Postileal: behind the ileum in 0.5% of people.

To determine the location of appendix in retrocecal fossa: by tracking the tenia coli to the base until it converges around the appendix.

### Surface anatomy of appendix – (McBurney's point):

McBurney's point: the point between the upper 2 thirds and the lower third of the line joining the right anterior superior iliac spine to the umbilicus, where the base of the appendix is situated.

### Blood Supply of appendix:

#### Arteries:

-The appendicular artery (A branch from posterior cecal artery (ilio-cecal artery) from SMA, which descends behind the ileum).

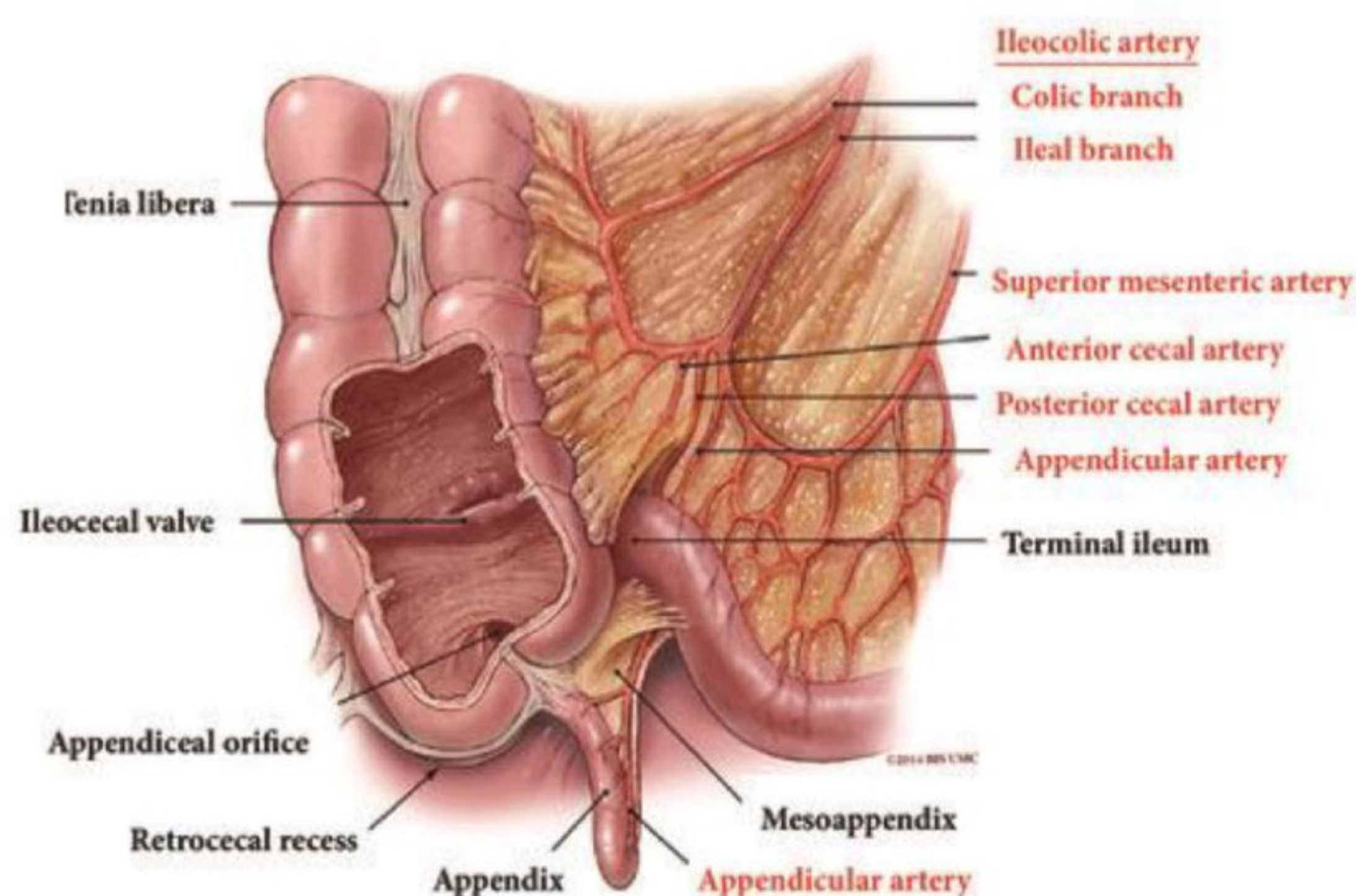
- Note: Appendicular artery runs in a free margin of the mesoappendix

#### Veins:

-The appendicular vein drains to posterior cecal vein.

#### Why is common to have a gangrene in the appendix?!

Because there is only one blood supply which is appendicular artery.



Blood supply

ال Cecum و appendix مركزيات

## Cecum

- The cecum is a blind-ended pouch within the right iliac fossa, it is about 2.5 in. (6 cm) long
- is completely covered with peritoneum
- At the junction of the cecum and the ascending colon, it is joined on the left side by the terminal part of the ileum.
- The appendix is attached to its posteromedial surface.

**Arteries:** Anterior and posterior cecal arteries from the ileocolic artery (from SMA)

**Veins:** drain to SMV

**There are two things that open into the cecum:**

- 1-The first thing is ileum; through the ileocecal junction which is a physiological sphincter, prevents cecal contents from returning back into the ileum.
- 2- The second thing is the appendix which usually presents in the retrocecal recess

**AND DON'T FORGET THE OPENING OF ASCENDING COLON**

### Relations

- **Anteriorly:** Coils of small intestine, sometimes part of the greater omentum, and the anterior abdominal wall in the right iliac region.
- **Posteriorly:** The psoas and the iliacus muscles, the femoral nerve, and the lateral cutaneous nerve of the thigh, the appendix is commonly found behind the cecum.
- **Medially:** The appendix arises from the cecum on its medial side.

### ILEOCECAL VALVE

A rudimentary structure, the ileocecal valve consists of two horizontal folds of mucous membrane that project around the orifice of the ileum.

20) choose the **wrong** about the circled structure

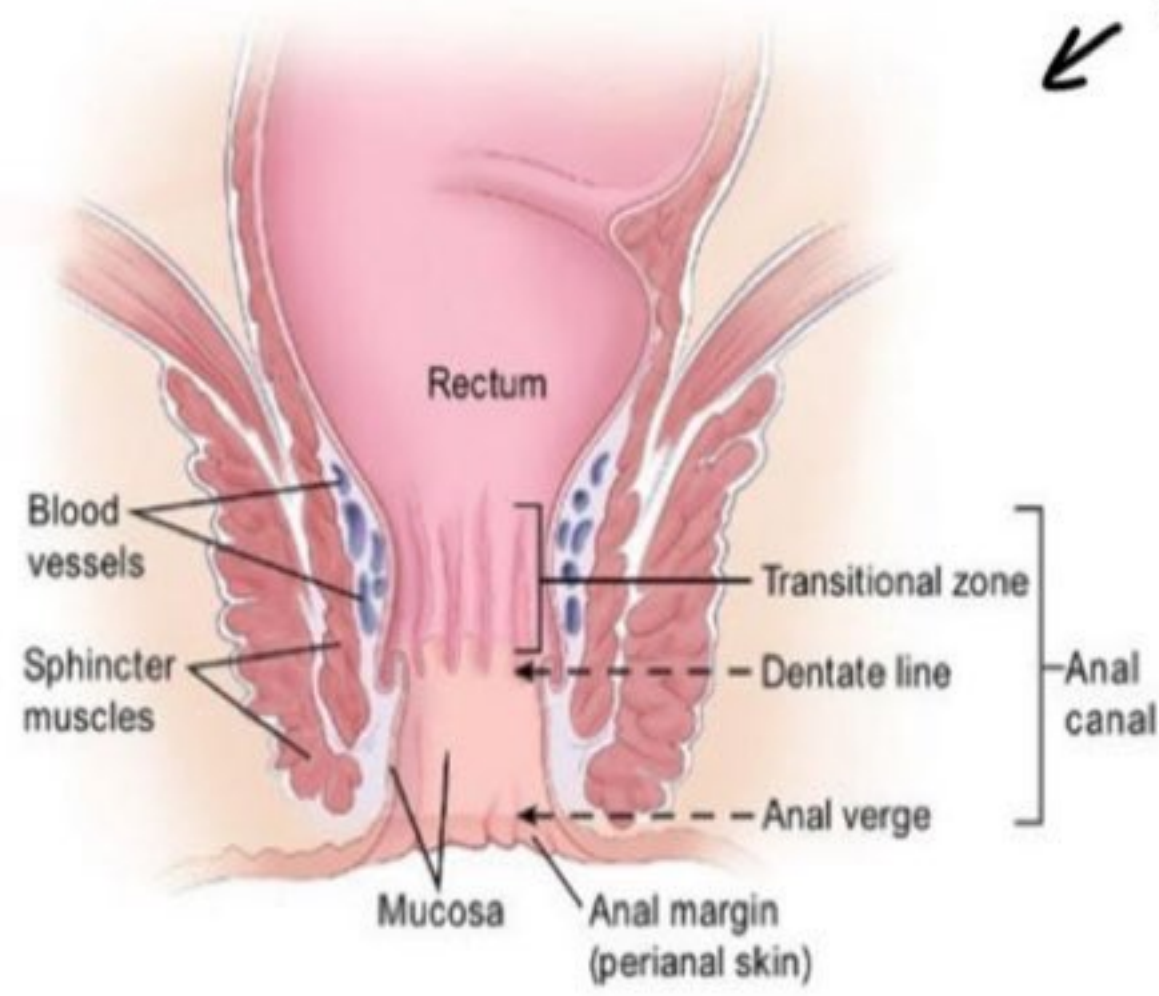
- a-it is part of the mid gut
- b-it is supplied by inferior mesenteric artery
- c-it has no tenia coli

→ B

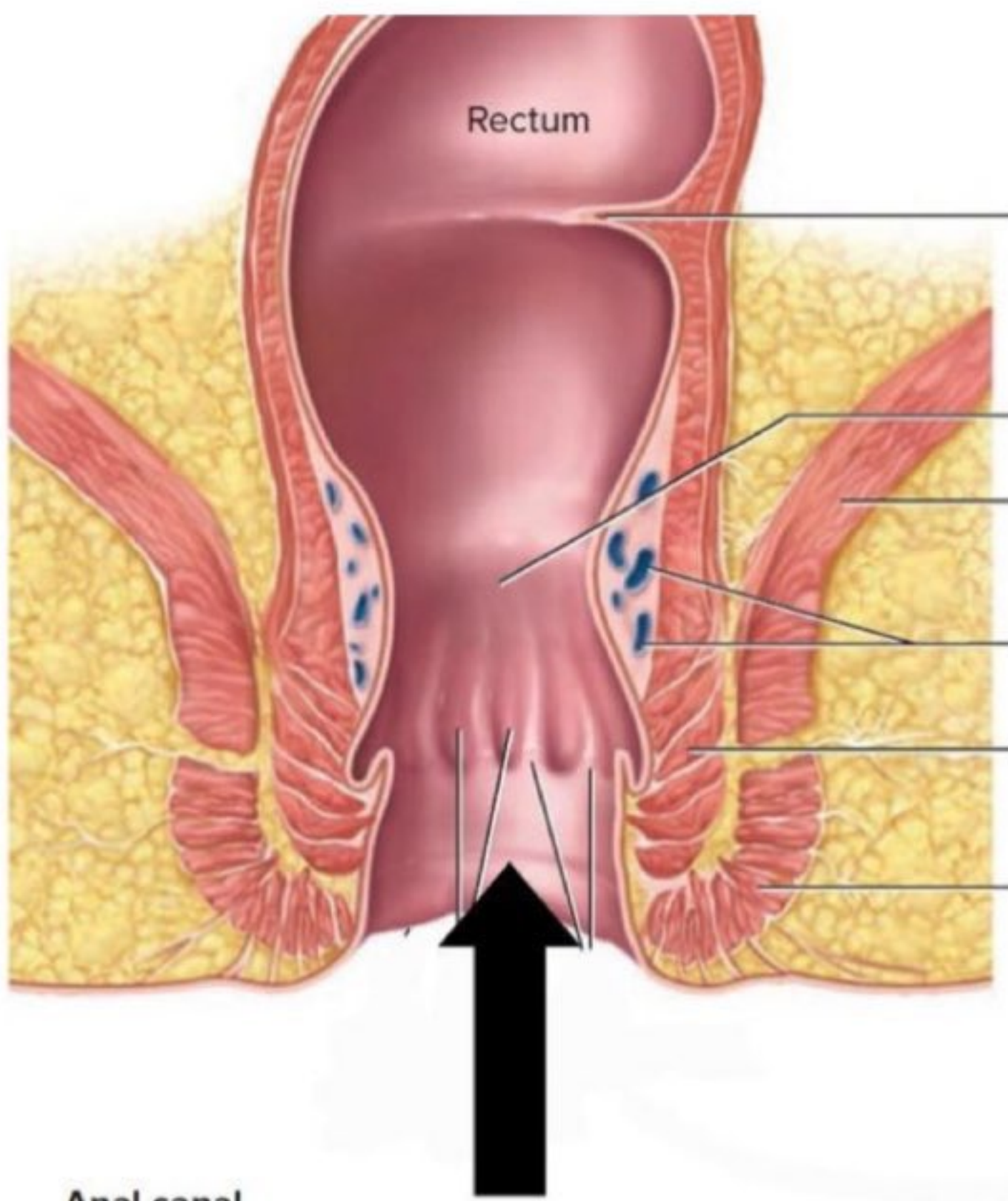


# Anal Canal

**Location and Description:** The anal canal is about 1.5 in. (4 cm) long and passes downward and backward from the rectal ampulla to the anus.



	Upper half	Lower half
Mucosa	Columnar epithelium	Stratified non-keratinized squamous epithelium and when it reaches the oral orifice, it becomes keratinized
Innervation	Autonomic (Stretch)	Somatic (pain, touch, temperature)
Lymphatic drainage	Internal iliac and inferior mesenteric (From Slides)	Superficial inguinal lymph nodes
Relation with hemorrhoid	Internal hemorrhoid	External hemorrhoid
Blood supply	Superior rectal artery and vein	Middle and inferior rectal artery and vein
Origin	Endoderm	Ectoderm (skin)



69) The pointed structure has the following features EXCEPT:

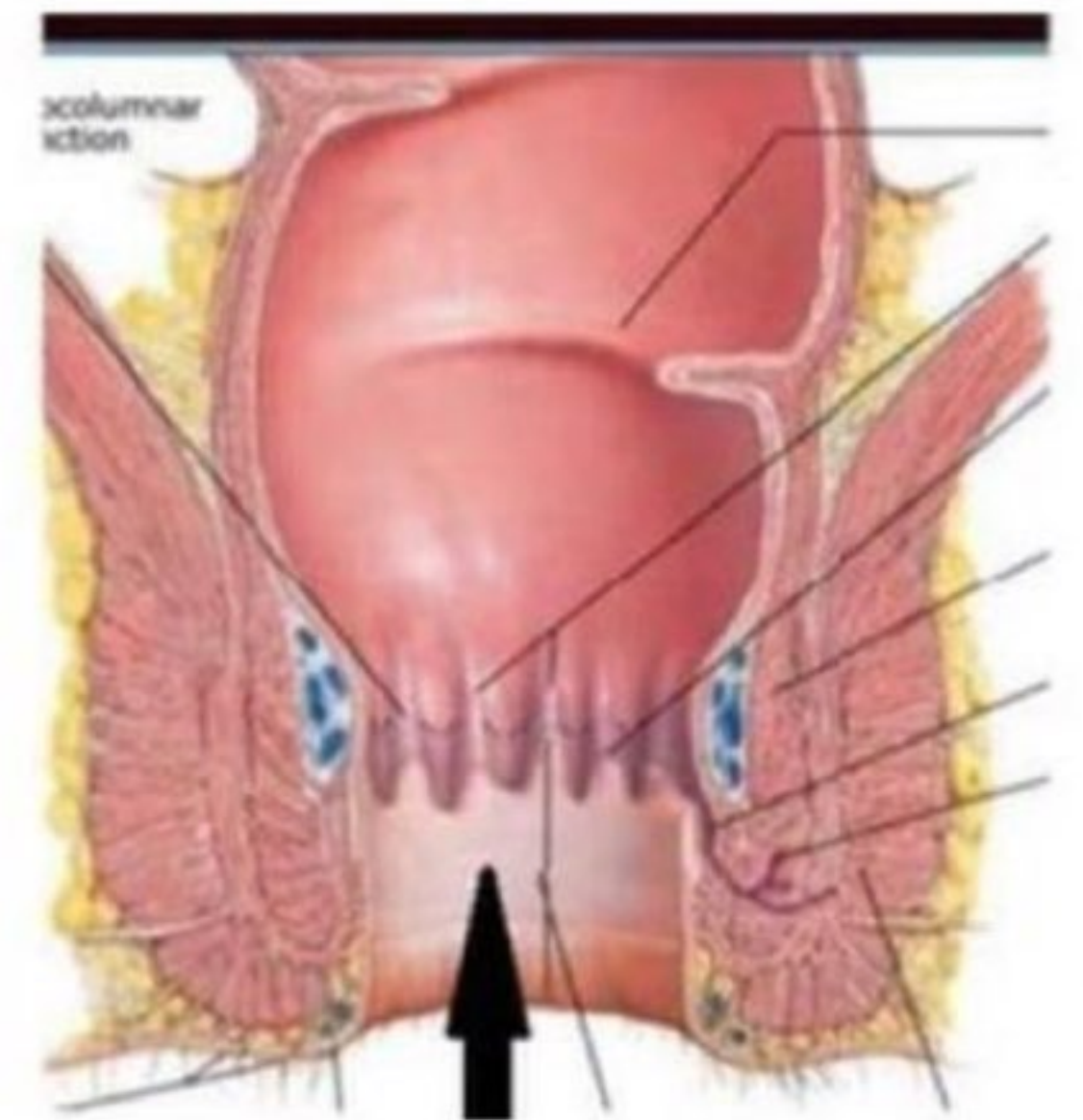
- A. The drainage is to the inferior vena cava.
- B. It is sensitive to pain.
- C. Stratified squamous keratinized epithelium.
- D. The type of hemorrhoid is internal.
- E. It has somatic Innervation.

Answer: D

55) The pointed structure characterized by all of the following EXCEPT one:

- A) The Lymphatic drainage to the inguinal lymph nodes.
- B) The veins drainage to the inferior vena cava.
- C) The lining epithelium is stratified squamous epithelium nonkeratinized.
- D) It has visceral sensation.
- E) The blood supply from internal iliac artery.

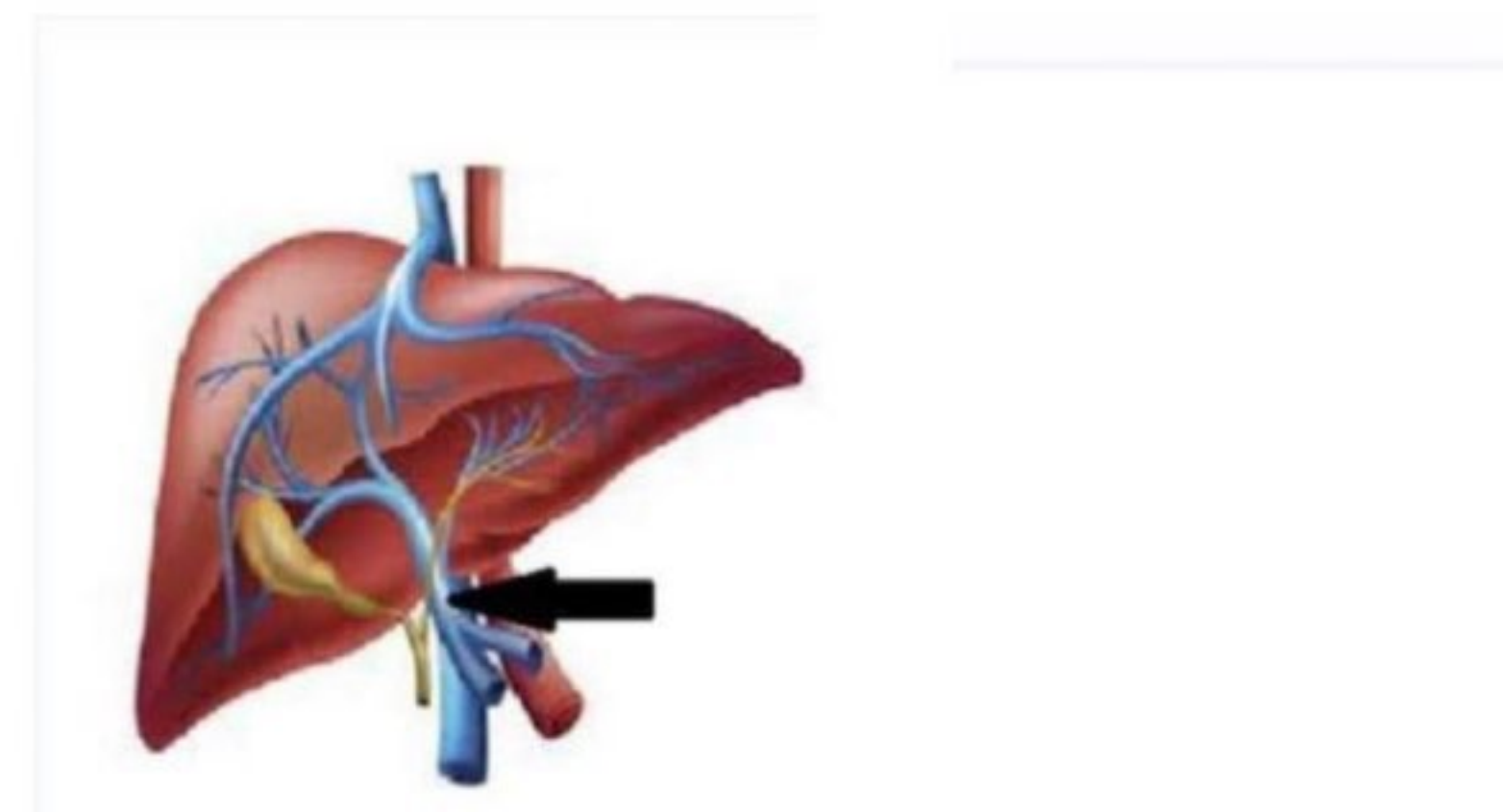
Asn: D



53) All of the following organs drain into the pointed structure EXCEPT one:

- A) Stomach.
- B) Gallbladder.
- C) Duodenum.
- D) Pancreas.
- E) Liver.

Asn: C



## ❖ Branches of abdominal aorta

### 1- Anterior

#### a. Single branches:

- 1) Celiac Trunk.
- 2) Superior mesenteric artery.
- 3) Inferior mesenteric artery.

#### b. Paired branches:

Testicular arteries (males) or ovarian arteries (females) at the level of L2.

**NOTE: The right vein drains directly into the IVC while the left one drains into the left renal vein.**

### 2- Posterior

#### a. Single branches:

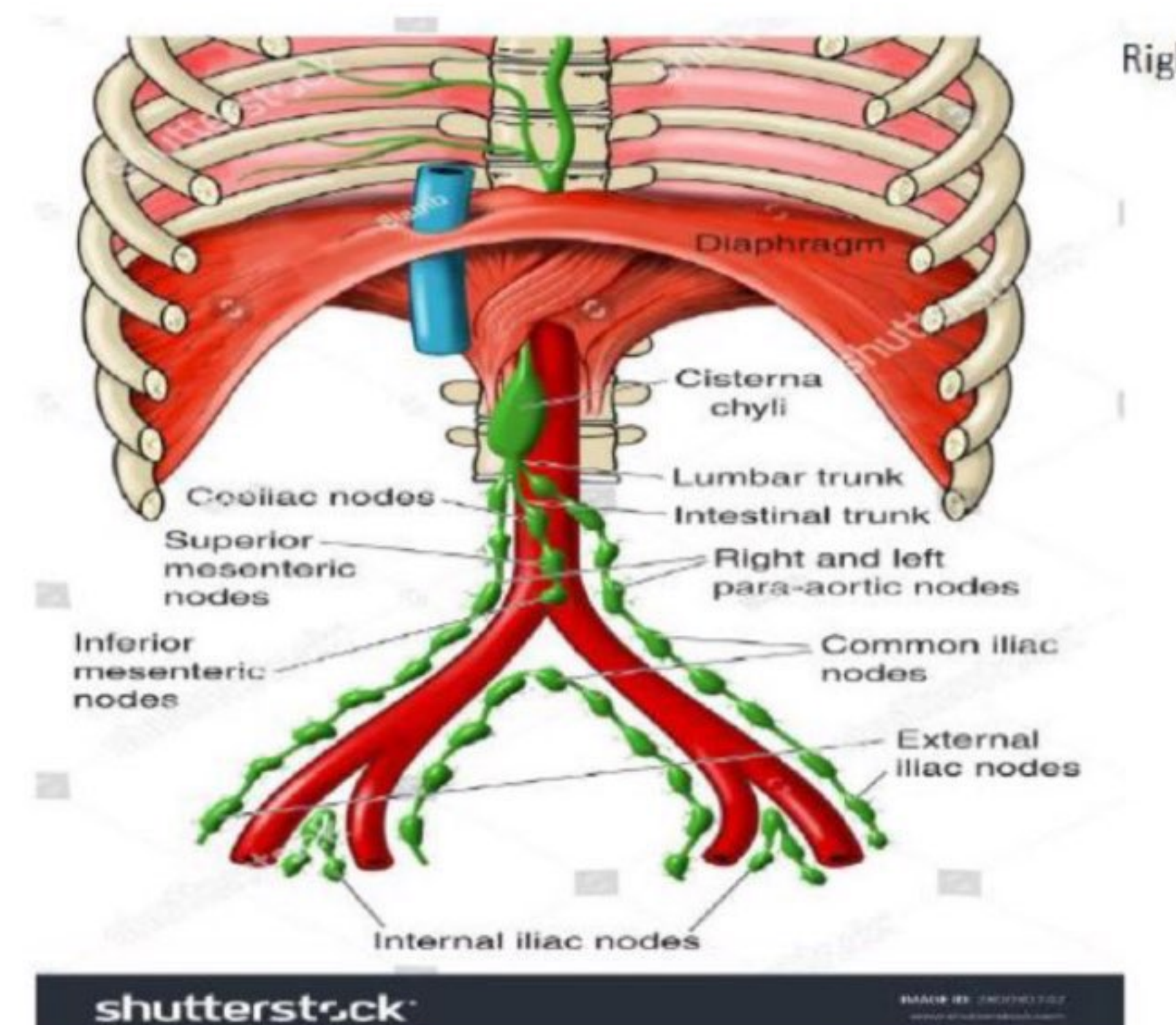
Median sacral artery >>It's considered the continuation of abdominal aorta.

#### b. Paired branches:

- 4 lumbar arteries anterior to the lumbar vertebrae.

### 3- Lateral

- 1) Inferior phrenic arteries that supply the diaphragm.
- 2) Middle suprarenal arteries that supply the suprarenal glands.
- 3) Renal arteries at the level of L2 to supply the kidneys.



### Lymphatics on the Posterior Abdominal Wall

>>The lymph nodes are closely related to the aorta and form a pre-aortic and a right and left lateral aortic (para-aortic or lumbar) chains which drains into the cisterna chyli.

### Thoracic duct

>> Begins in the abdomen, arising from an elongated lymph sac, the cisterna chyli (final destination of all the lymphatics of the abdomen and lower limb), which lies just below the diaphragm at the opening of the aorta.

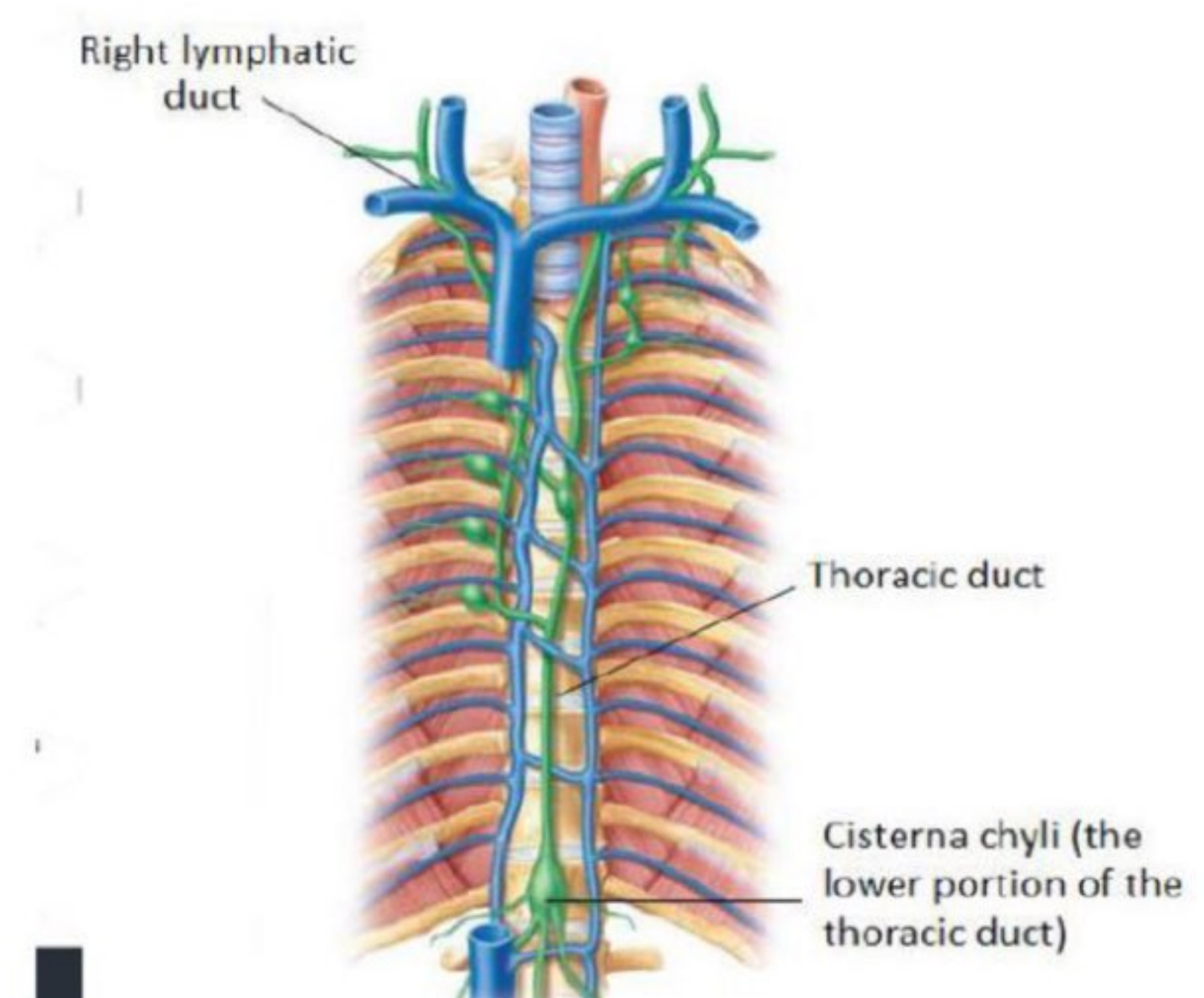
>>Found at the right side of the aorta.

>>The thoracic duct ascends upwards at the left side and ends at the junction of left subclavian and left internal jugular veins (beginning of the left brachiocephalic vein).

### The cisterna chyli

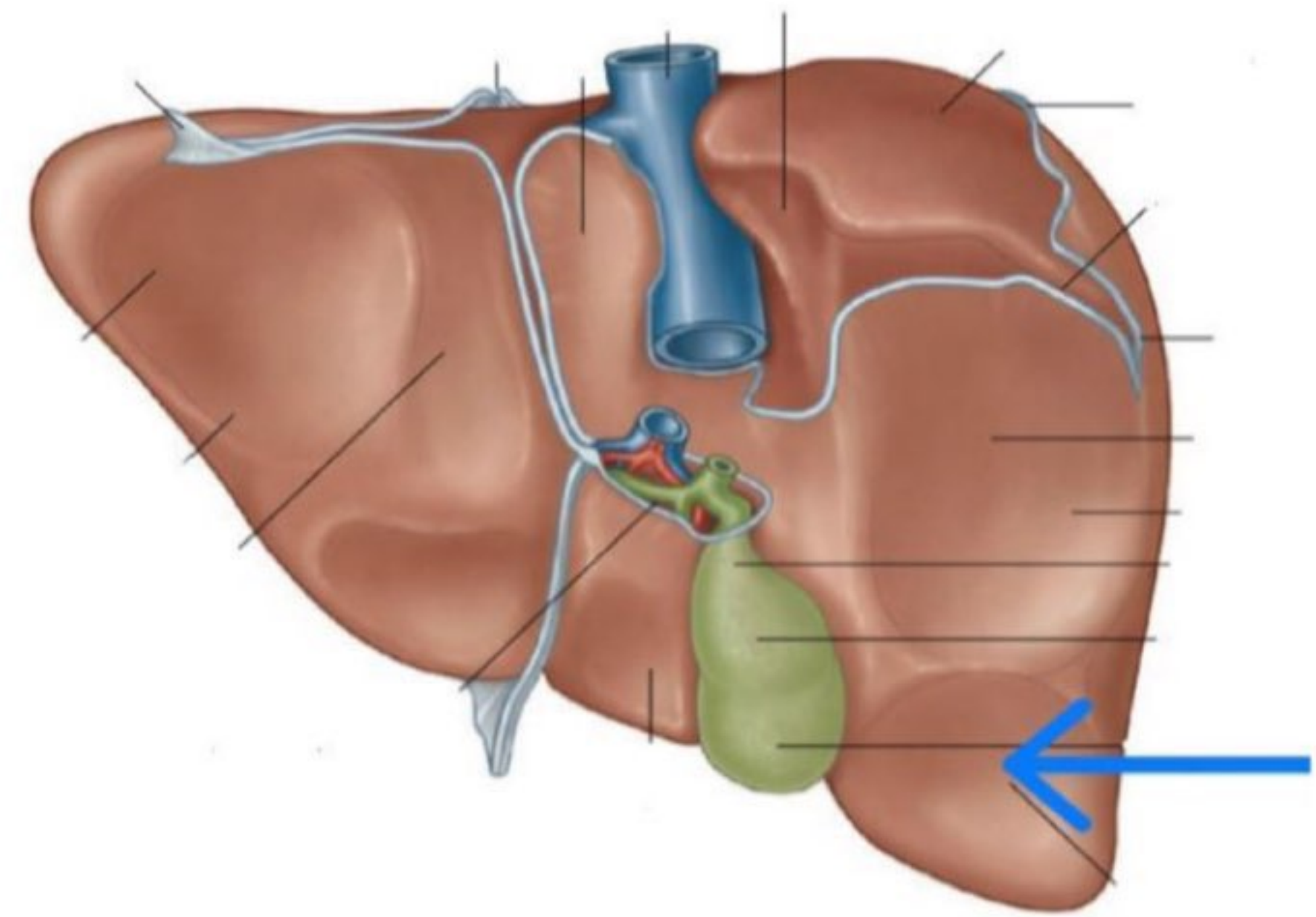
>>Receives lymph from:

1. The right and left lumbar trunks under the diaphragm on the side of the aorta.
2. The intestinal trunk.
3. Some small lymph vessels that descend from the lower part of the thorax.
4. Right & Left vessels from lower thorax.



57) identify the pointed Impression:

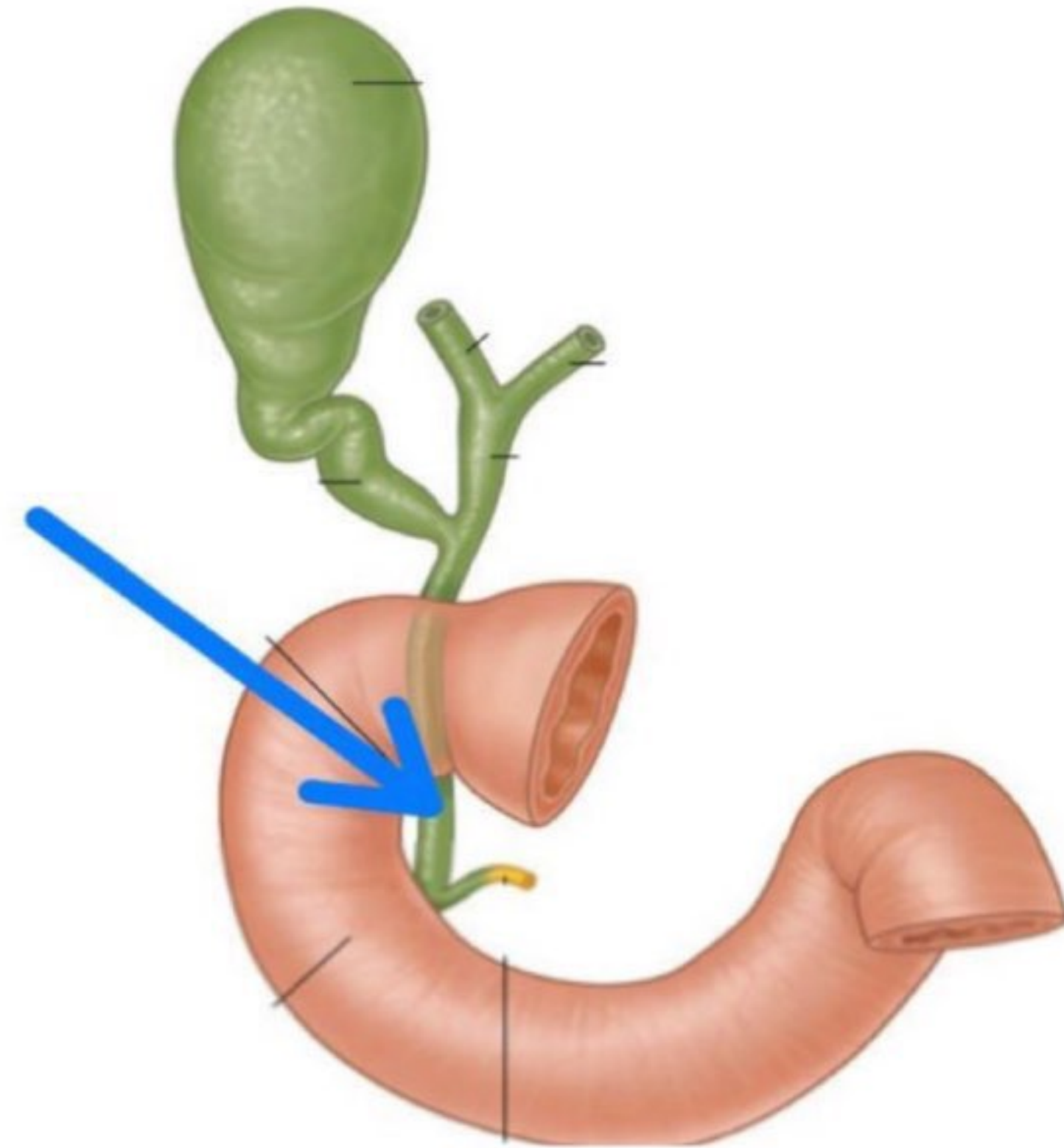
- A. Right colic flexure.
- B. Duodenum.
- C. Stomach.
- D. Renal.
- E. Esophagus.



Answer: A

59) The length of the pointed structure is :

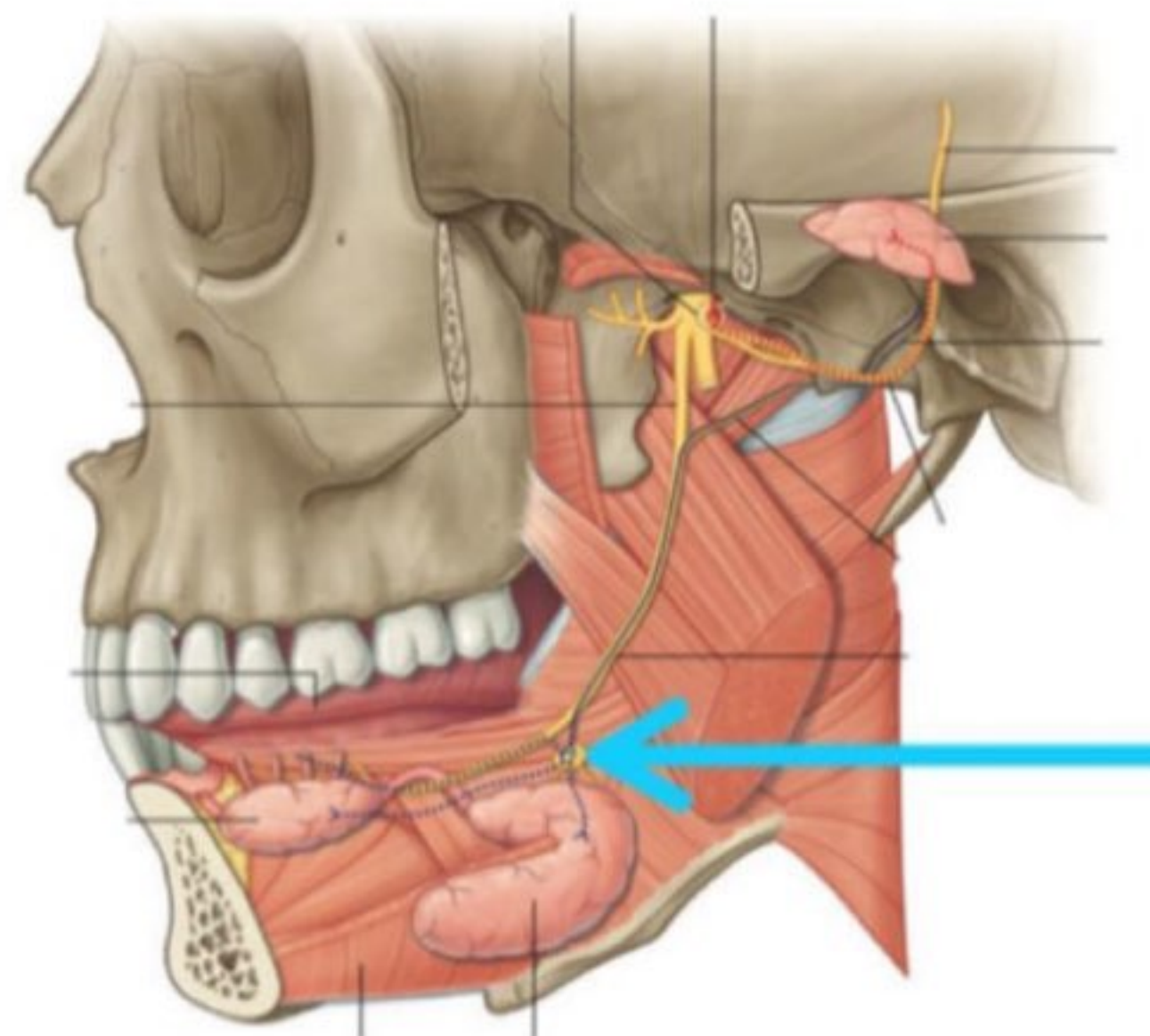
- A. 6- 7cm
- B. 8- 10cm
- C. 2-3 cm
- D. 4- 5.cm
- E. 11- 12cm



Answer: B

63) Identify the pointed structure:

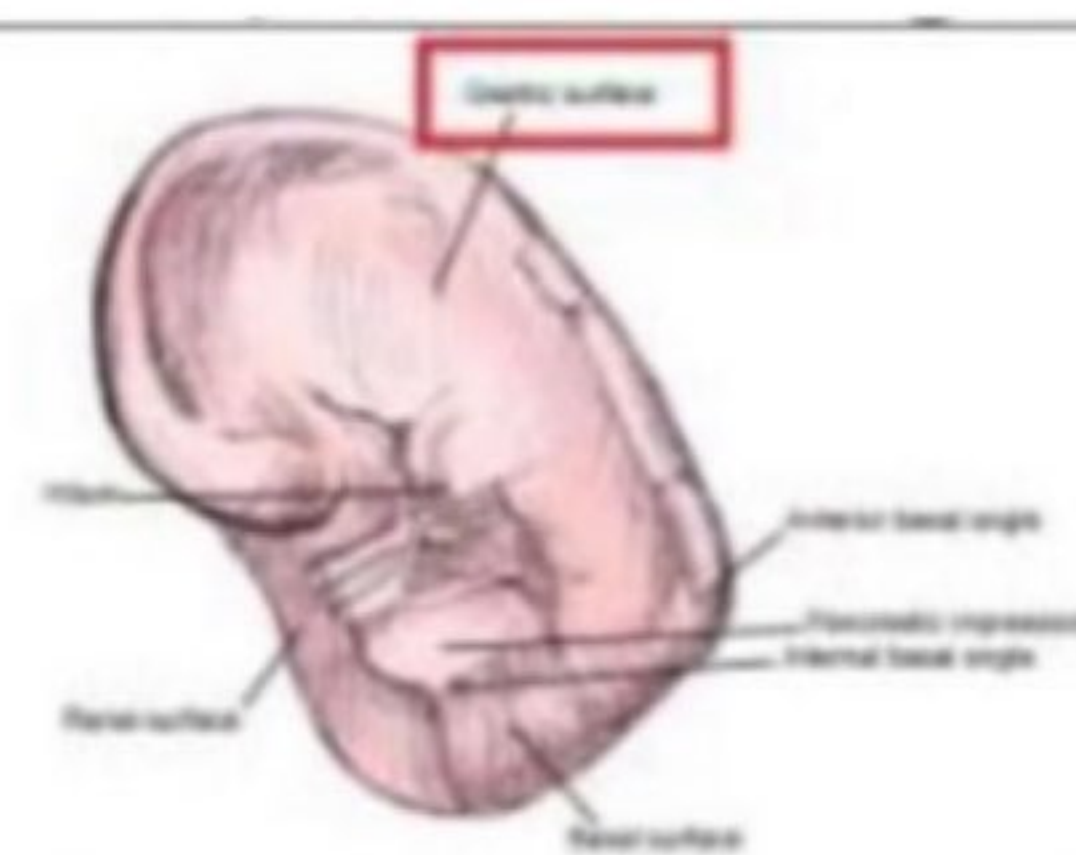
- A. Otic ganglia.
- B. Submandibular ganglia.
- C. Pterygopalatine ganglion.
- D. Sublingual ganglia.
- E. Ciliary ganglion.



Answer: B

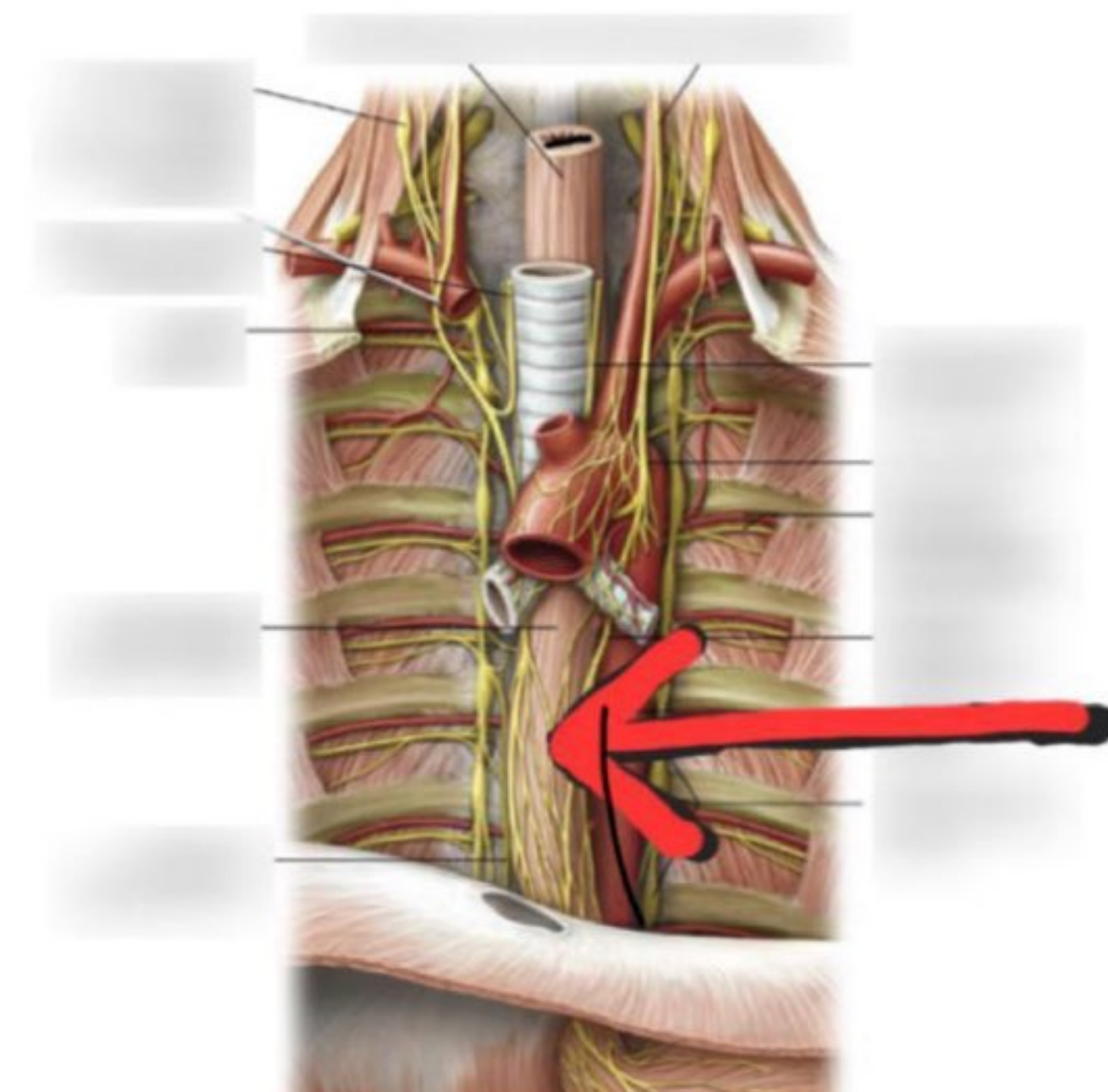
3- Name the pointed impression on spleen:

Gastric impression



64) The pointed structure characterized by the following EXCEPT:

- A. Pierces the diaphragm at the level of 10th thoracic vertebrae.
- B. The length is 25 cm.
- C. Begins at the lower border of thyroid cartilage
- D. Crossed by the left main bronchus.
- E. Related to the arch of aorta on the left side



Answer: C



10- What is the liver impression – renal

11- What is the duct – common hepatic

58) Swallowing of a foreign body through the pointed structure is lodge in all of the following sites EXCEPT:

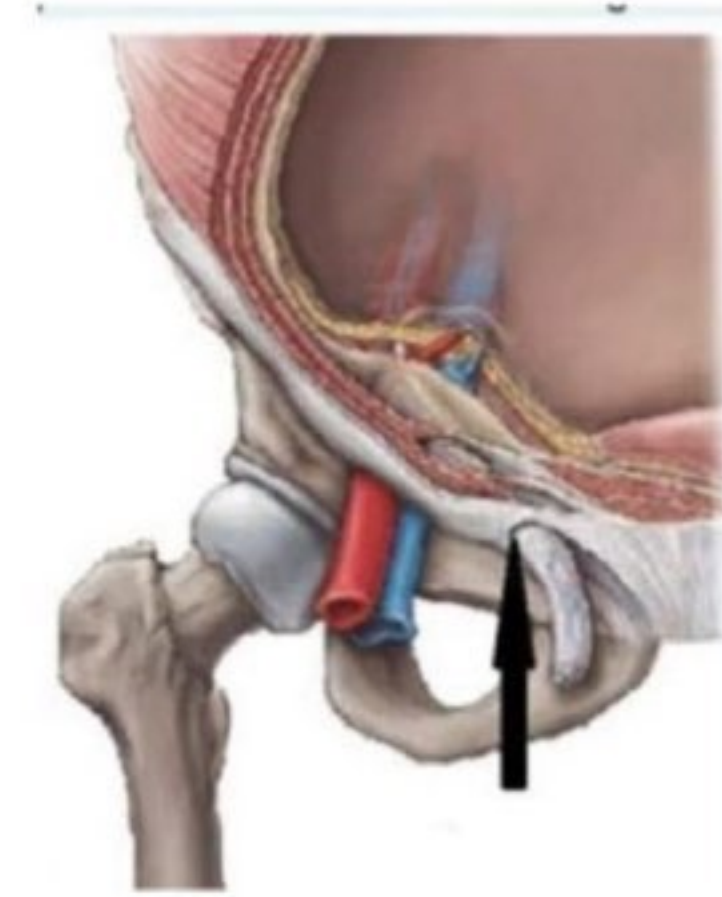
- A) Pressure by arch of the aorta.
- B) At the beginning.
- C) Passing through the diaphragm.
- D) Crossing by descending thoracic aorta
- E) Crossing by left bronchus.



Asn: D

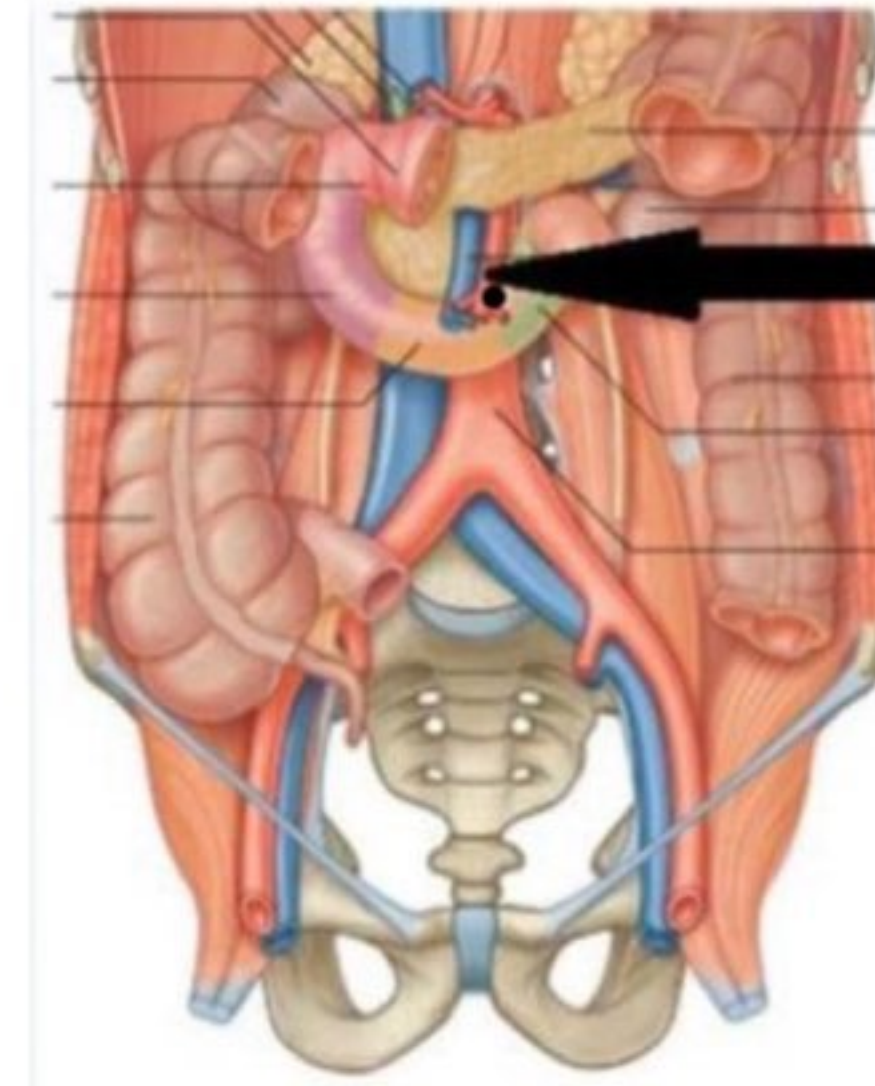
60) The pointed structure is reinforced by which one of the following :

- A) Conjoint tendon.
- B) Internal oblique aponeurosis.
- C) Transversats fascia.
- D) Inguinal ligament.
- E) External oblique aponeurosis



46) The pointed structure supplies all of the following organs EXCEPT:

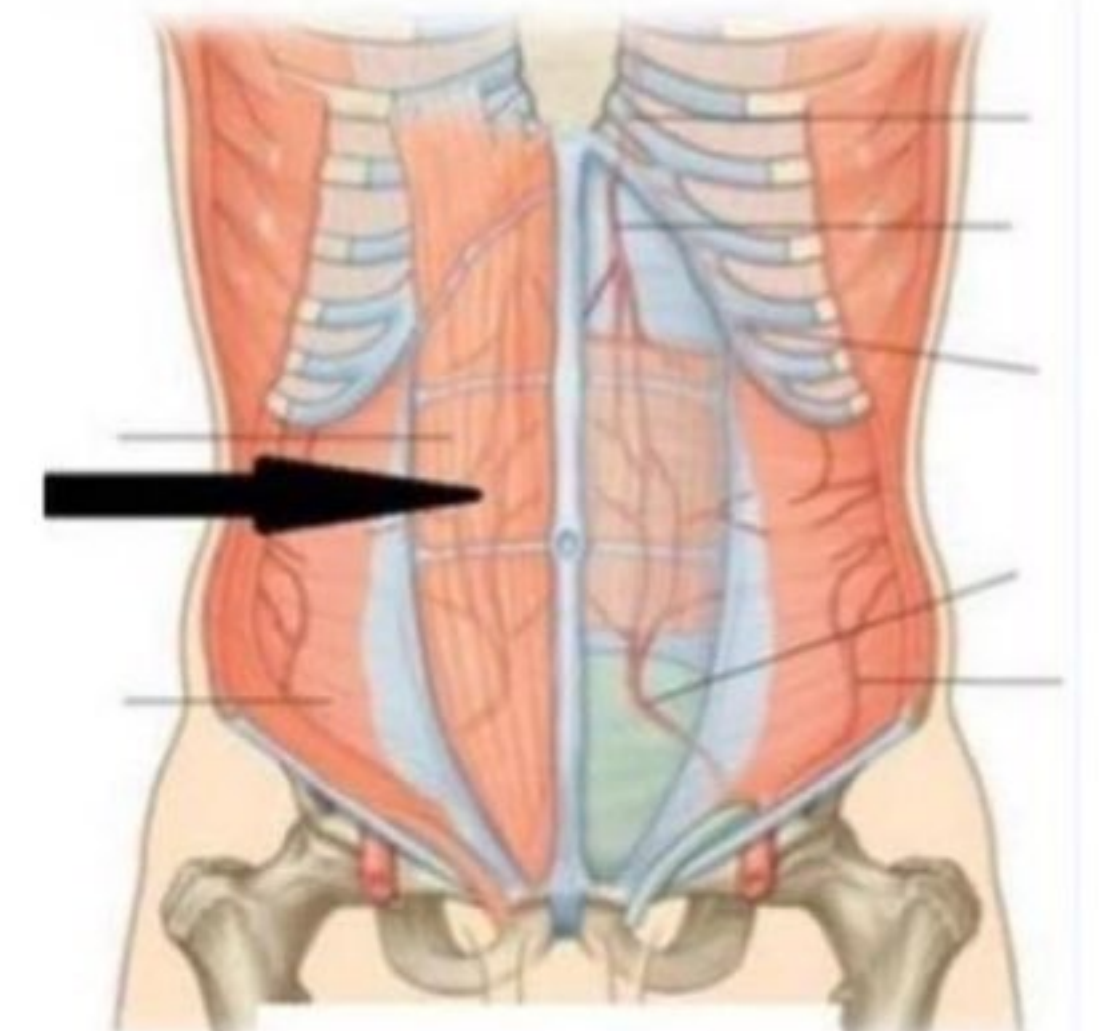
- A) Appendix.
- B) Duodenum.
- C) Pancreas.
- D) ilium.
- E) Spleen.



Asn: E

44) The pointed structure contains all of the following EXCEPT:

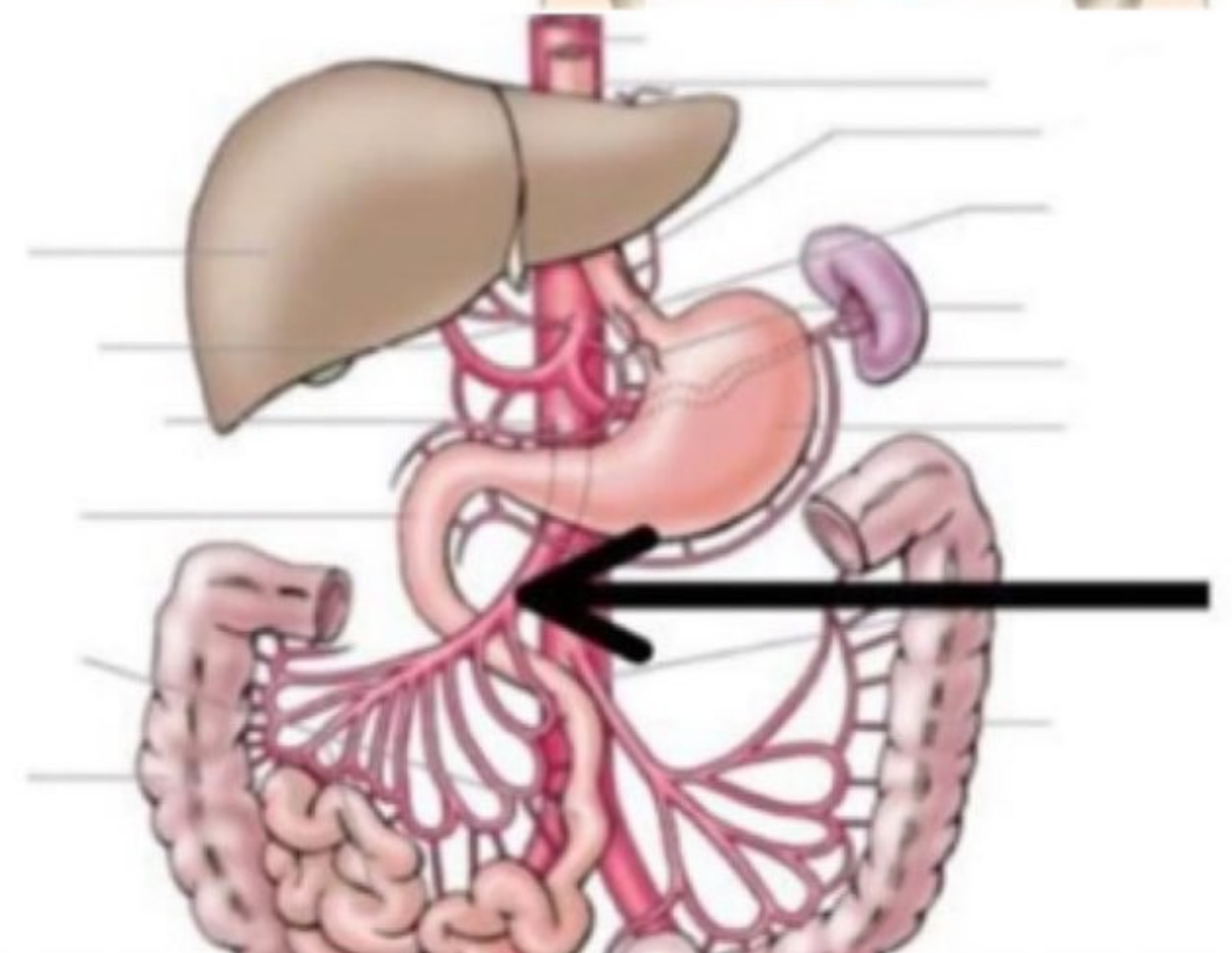
- A) Intercostals nerves.
- B) LI spinal nerves.
- C) Lymphatic vessels.
- D) Two muscles.
- E) Two arteries.



Asn: B

54) Ligation of the pointed artery at the pointed site It causes ischemia to one of the following organs:

- A. Stomach.
- B. Duodenum.
- C. Ascending colon.
- D. Pancreas.
- E. Descending colon.



Asn = C

12) which of the following muscles is not inserted in the pic

a-genioglossus

b-temporalis

c-medial pterygoid

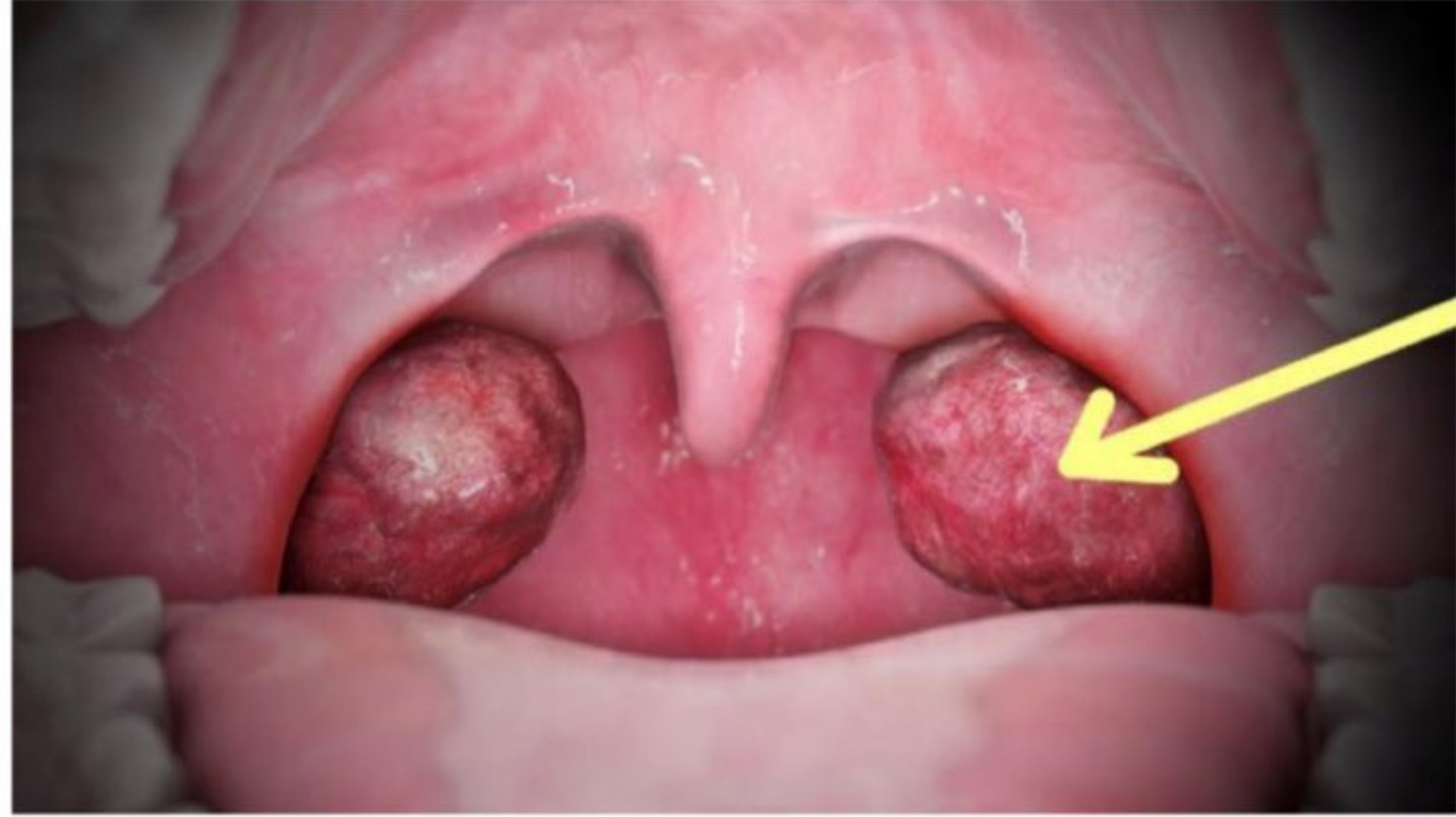
d-lateral pterygoid



→ A

61) The nerve supply of the pointed structure is :

- A. Lesser palatine.
- B. Greater palatine.
- C. Autonomic.
- D. Short sphenopalatine.
- E. Long sphenopalatine.



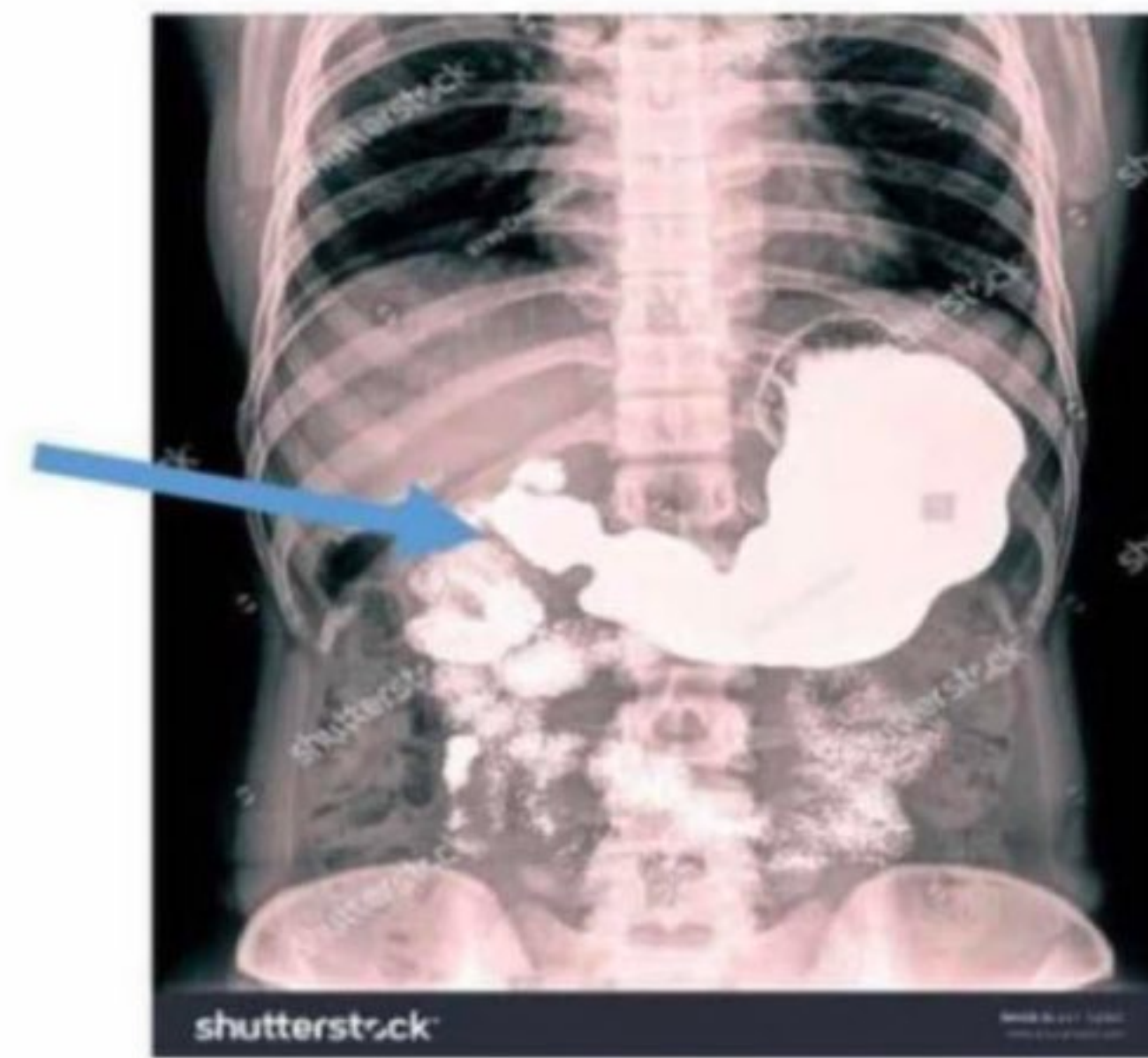
Answer: A

1)The pointed structure is

a- Stomach

b- antrum

c-Duodenal cap



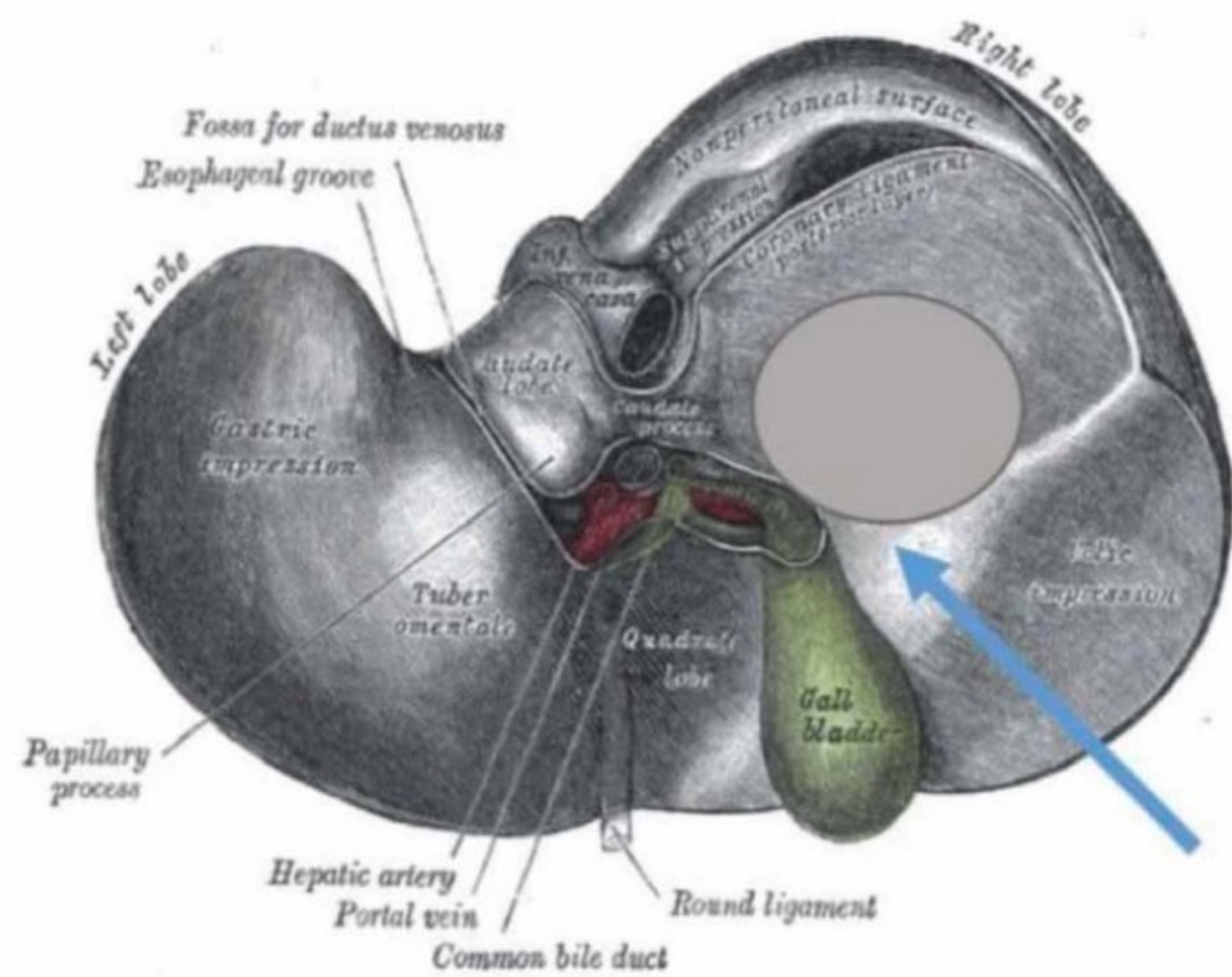
→ C

2)The pointed impression is :-

a- stomach

b- duodenal

c-renal



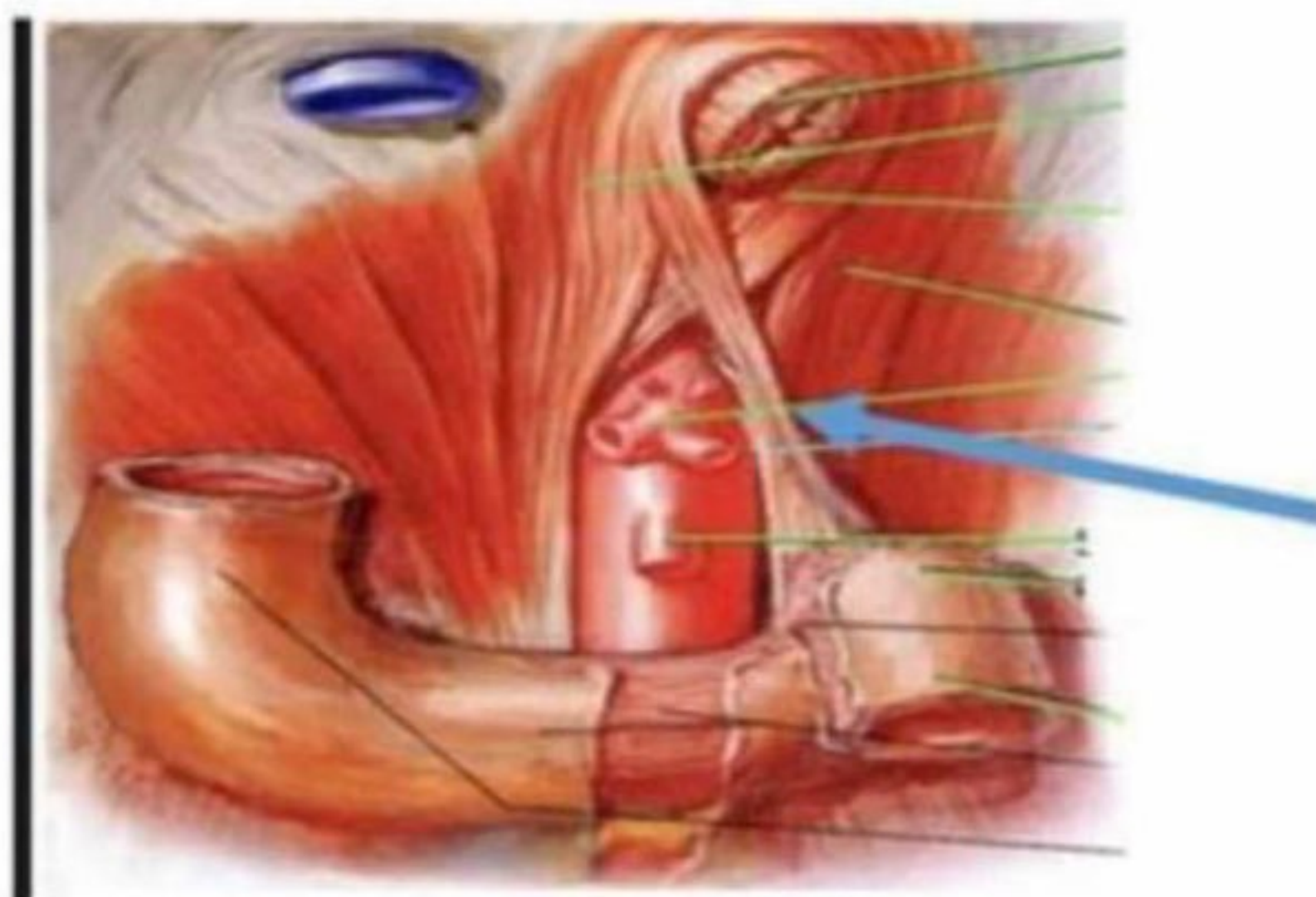
→ B

11) the pointed ligament is

a) gastrosplenic

b) splenorenal

c) ligament of traitz



Asn: C