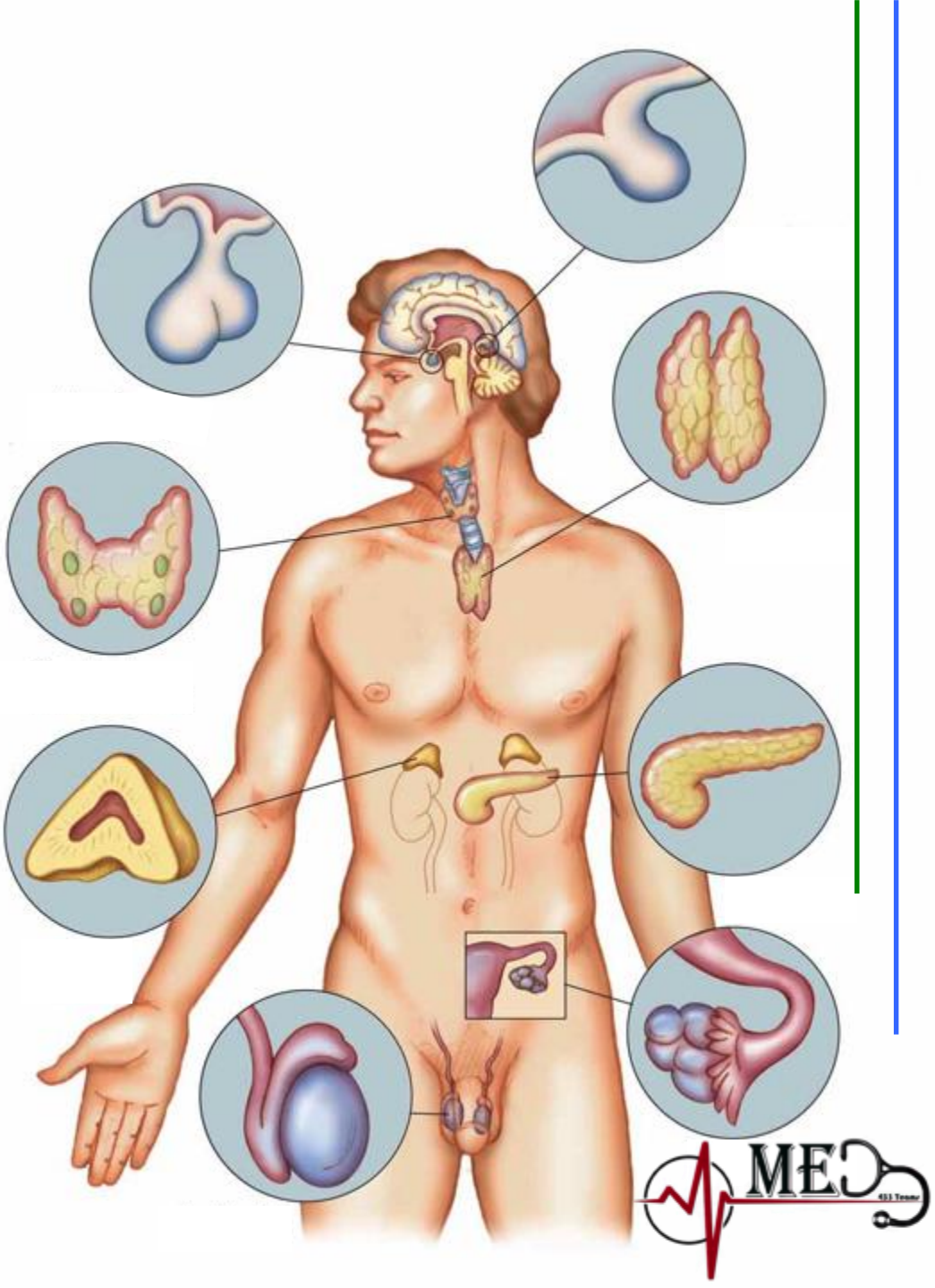
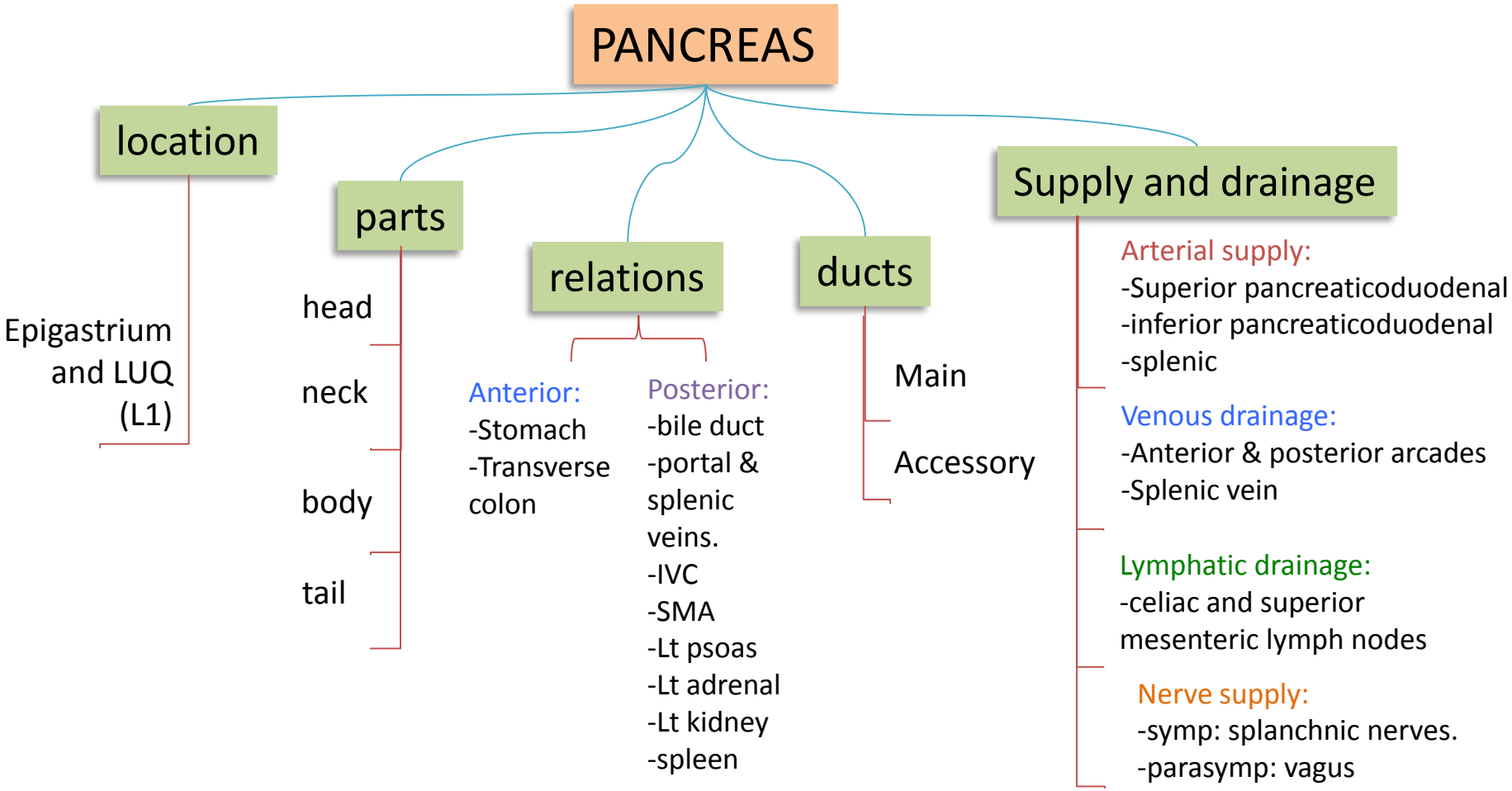
Anatomy Team
433

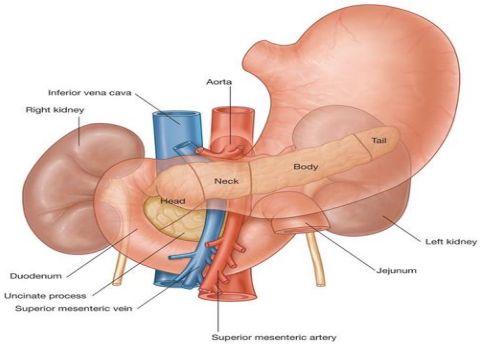
L4 PANCREAS



MIND MAP


PANCREAS
location
Epigastrium and LUQ (L1)
parts
head
neck
body
tail
relations
Anterior:
-Stomach
-Transverse colon
Posterior:
-bile duct
-portal & splenic veins.
-IVC
-SMA
-Lt psoas
-Lt adrenal
-Lt kidney
-spleen
ducts
Main
Accessory
Supply and drainage
Arterial supply:
-Superior pancreaticoduodenal
-inferior pancreaticoduodenal
-splenic
Venous drainage:
-Anterior & posterior arcades
-Splenic vein
Lymphatic drainage:
-celiac and superior mesenteric lymph nodes
Nerve supply:
-symp: splanchnic nerves.
-parasymp: vagus

PANCREAS

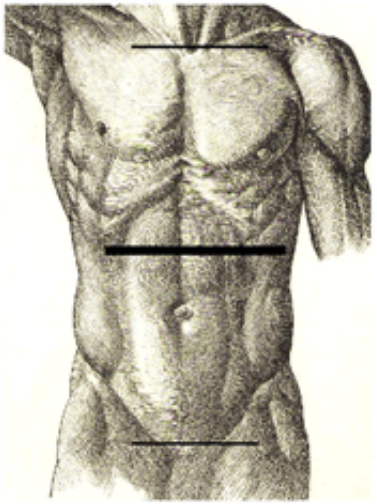


A gland with both exocrine and endocrine functions:

- ✓ Exocrine: secretions of digestive enzymes.
- ✓ Endocrine: islets of Langerhans that produce insulin and glucagon.

Location:

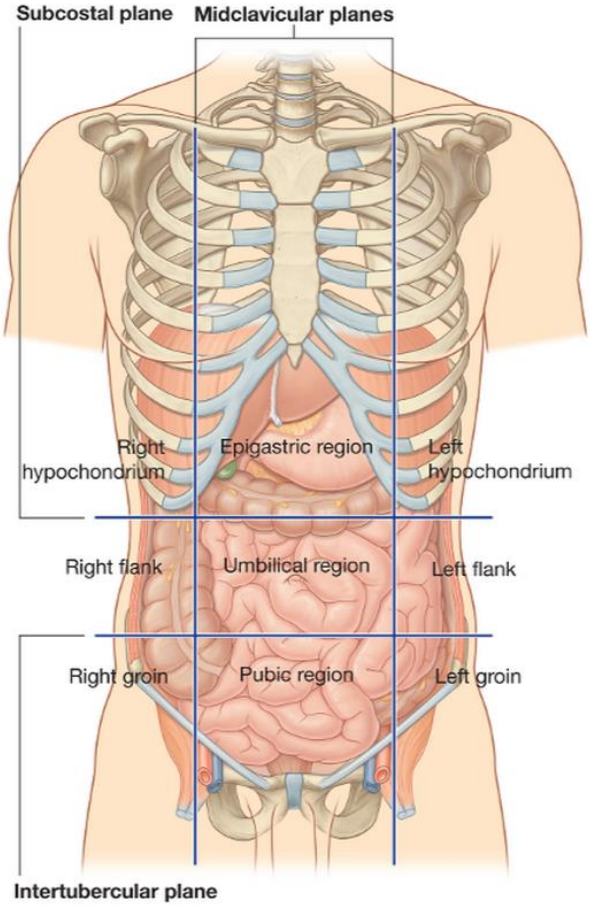
- ✓ *Epigastrium* and *left upper quadrent*
- ✓ retroperitoneal
- ✓ Crosses the posterior abdominal wall in an oblique direction at the transpyloric plane (L1) the tail reaches up to T12



Suprasternal notch (T2/3)

Transpyloric plane (L1) (1/2 way between)

Pubic symphysis



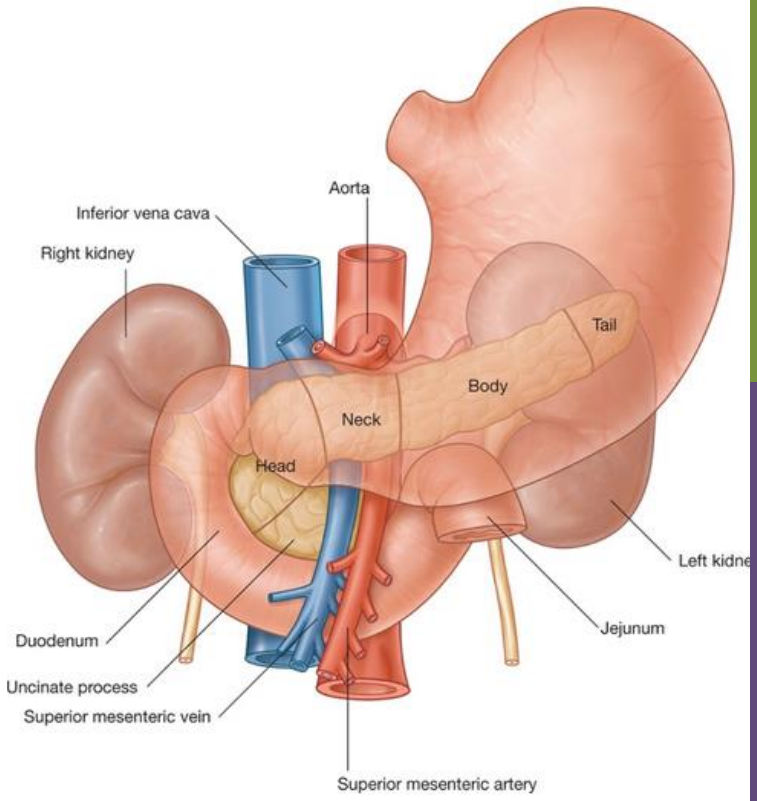
PARTS

2- Neck:

- ✓ The constricted portion connecting the head & body of pancreas
- ✓ It lies **in front of origin of superior mesenteric artery and the confluence of the portal vein**
- ✓ Its antero-superior surface supports the pylorus of the stomach
- ✓ The superior mesenteric vessels emerge from its inferior border

1- Head:

- ✓ Disk shaped.
- ✓ Lies within the concavity of the 2nd and 3rd parts of the duodenum.(to the right)
- ✓ emerges into the neck on the left.
- ✓ includes the **uncinate process** (to the left behind the superior mesenteric artery and vein)



3- Body:

- ✓ It runs upward and to the left.
- ✓ It is triangular in cross section.
- ✓ The splenic vein is embedded in its post. surface

4- Tail:

- ✓ A narrow, short segment that lies at the level of T12
- ✓ Ends within the splenic hilum
- ✓ Lies within the splenicorenal ligament
- ✓ Anteriorly, related to splenic flexure of colon
- ✓ May be injured during splenectomy.

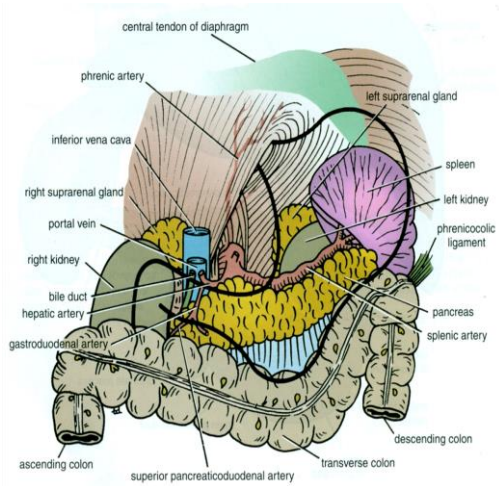
RELATIONS

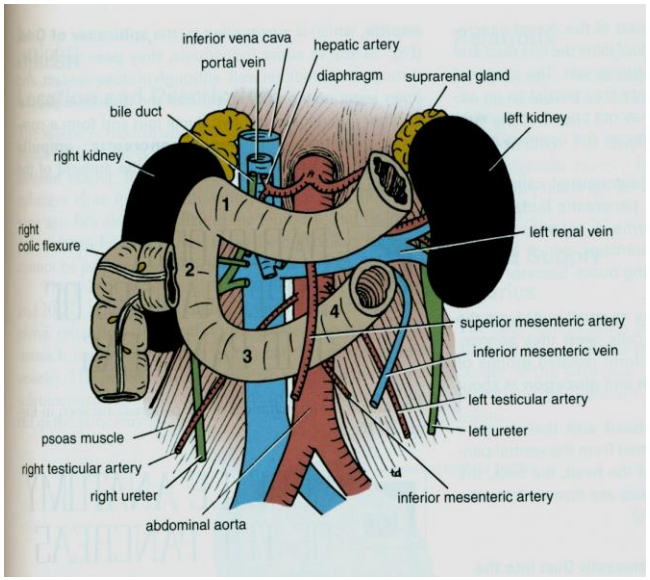
Anterior:

1. The stomach (separated by the the lesser sac)
2. Transverse colon.
3. Transverse mesocolon.

Posterior:

1. Bile duct.
2. Portal and splenic veins.
3. Inferior vena cava.
4. Aorta and origin of superior mesenteric artery.
5. Left psoas muscle.
6. Left adrenal gland.
7. Left renal vessels.
8. Upper 1/3rd of left kidney.
9. Hilum of spleen.

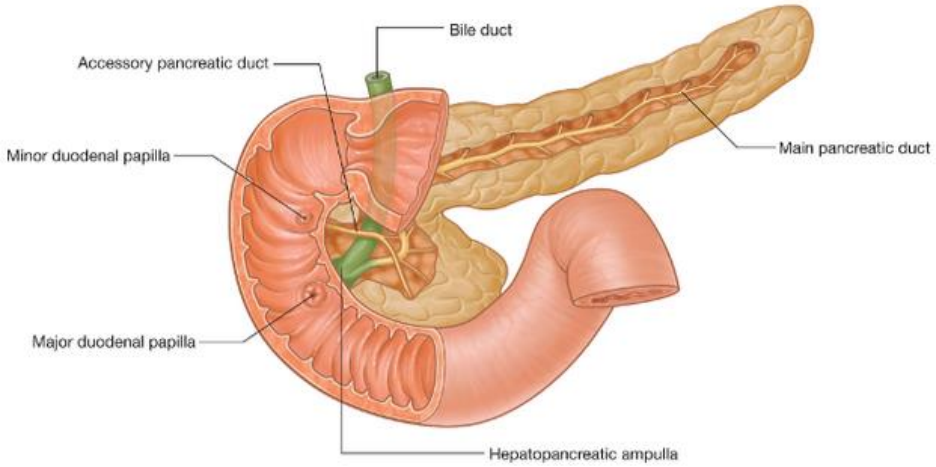




PANCREATIC DUCTS

Main duct:

- ✓ Runs the entire length of the pancreas.
- ✓ Receives many tributaries.
- ✓ Joins common bile duct to form **hepatopancreatic ampulla (Ampulla of Vater)**
- ✓ The ampulla opens into the 2nd part of the duodenum as the **major duodenal papilla.**



Accessory duct(duct of santorini):

- ✓ Drains the superior portion of the head.
- ✓ Empties separately into 2nd part of the duodenum as the **minor duodenal papilla.**

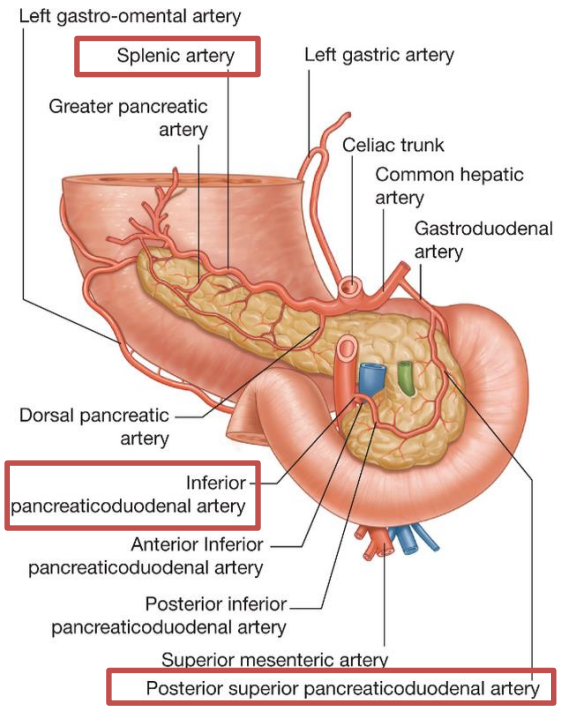
SUPPLY & DRAINAGE

Arterial supply: supplied by three major arteries:

1- **superior pancreaticoduodenal artery** (branch of gastroduodenal of celiac)
Supplies the superior portion of the head

2- **inferior pancreaticoduodenal artery** (branch of superior mesenteric artery) supply the inferior portion of the head

3- **splenic artery** (gives about 10 small branches)
Supply the body and tail



Venous drainage: follow arterial supply

Anterior and posterior arcades drain head and body

Splenic vein drains body and tail

Ultimately to the **portal vein**

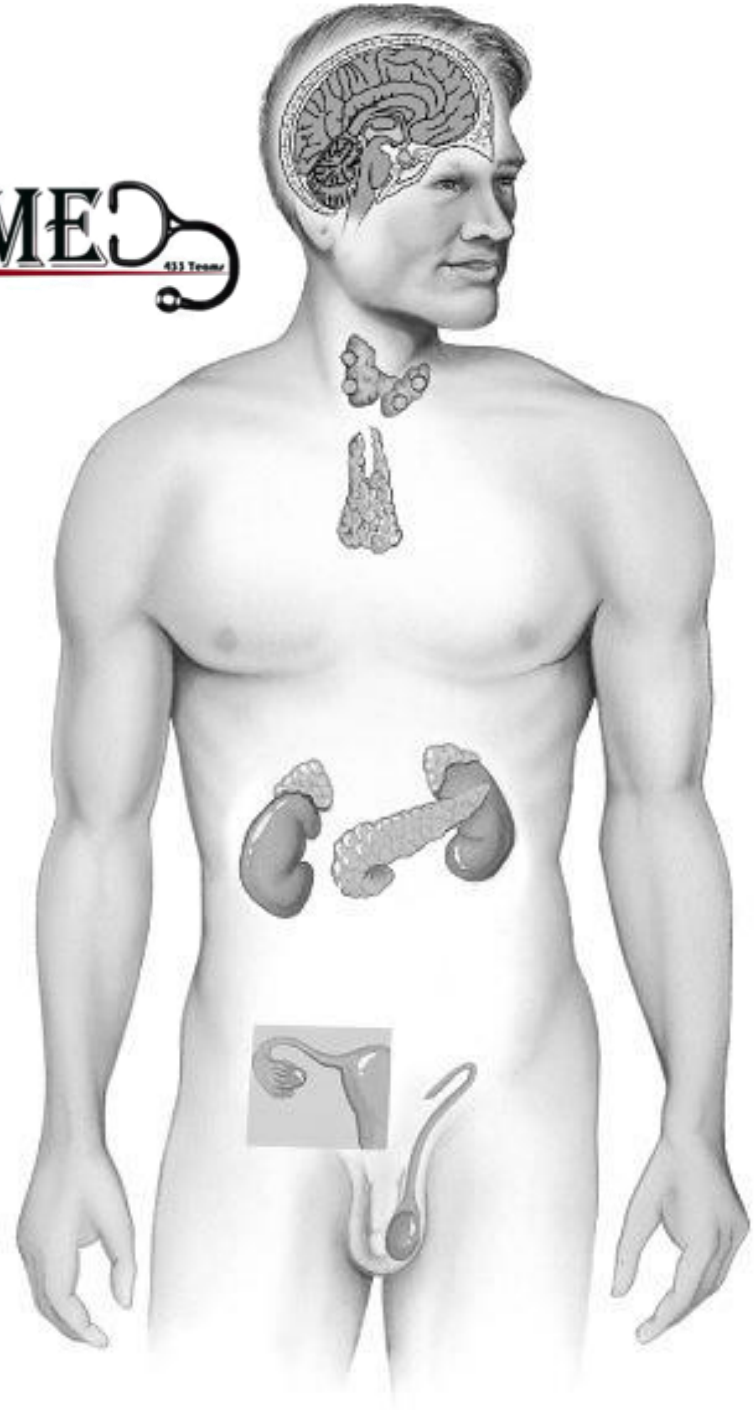
Lymphatic drainage:

Celiac and superior mesenteric lymph nodes

Nerve supply:

Sympathetic: from splanchnic nerves

Parasympathetic: from vagus nerve
- Parasympathetic stimulate both exocrine and endocrine secreations



GOOD LUCK

Done by:
Hashem Alrebdi
Hassan Almalak

Revised by:
Rahma Alshehri

anatomy433@gmail.com

@anatomy433