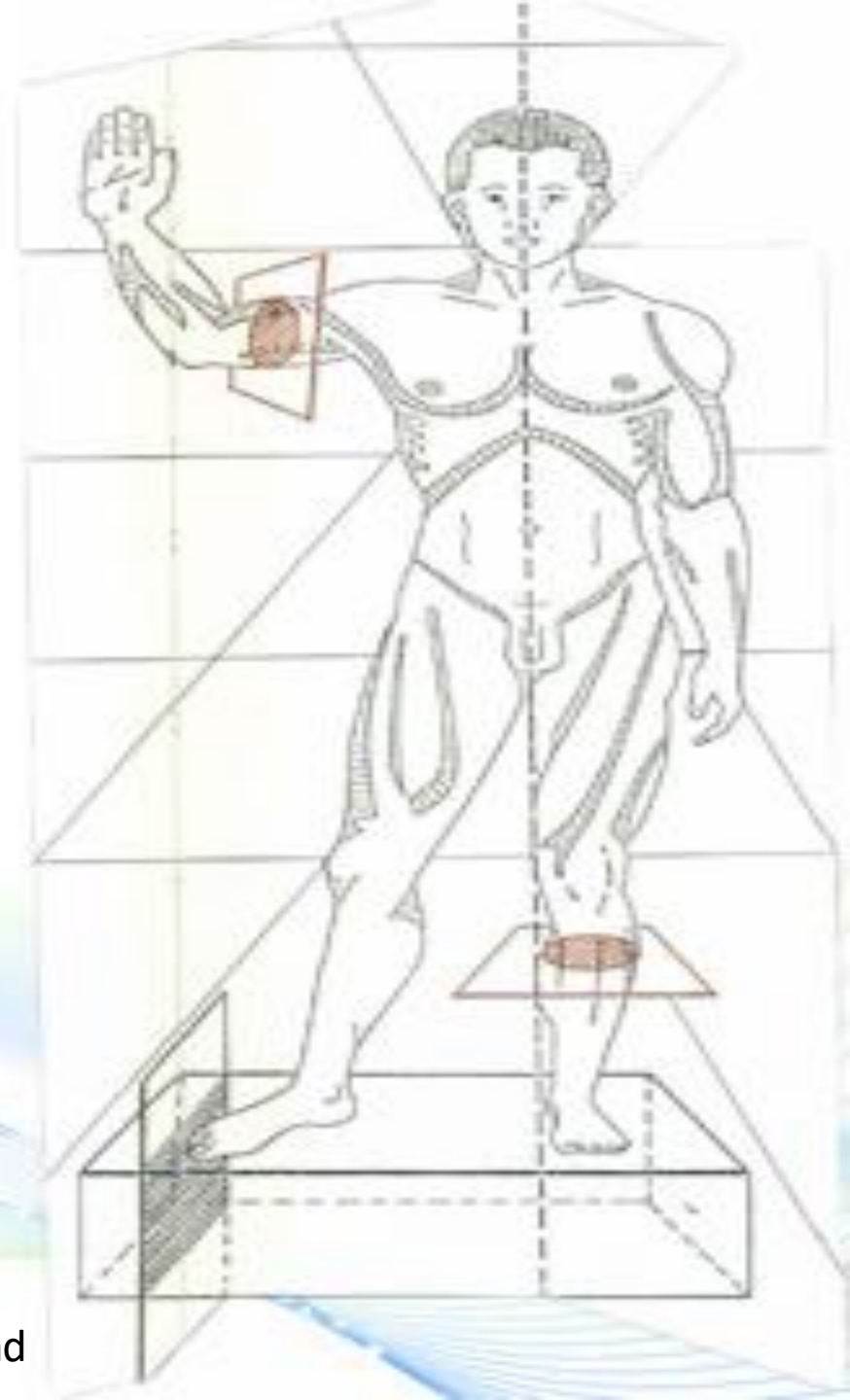


SPLEEN

Pr M. D. EL AMRANI

Dr BENTALEB Oussama

Dr WAKRIM Hind



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II. DESCRIPTIVE
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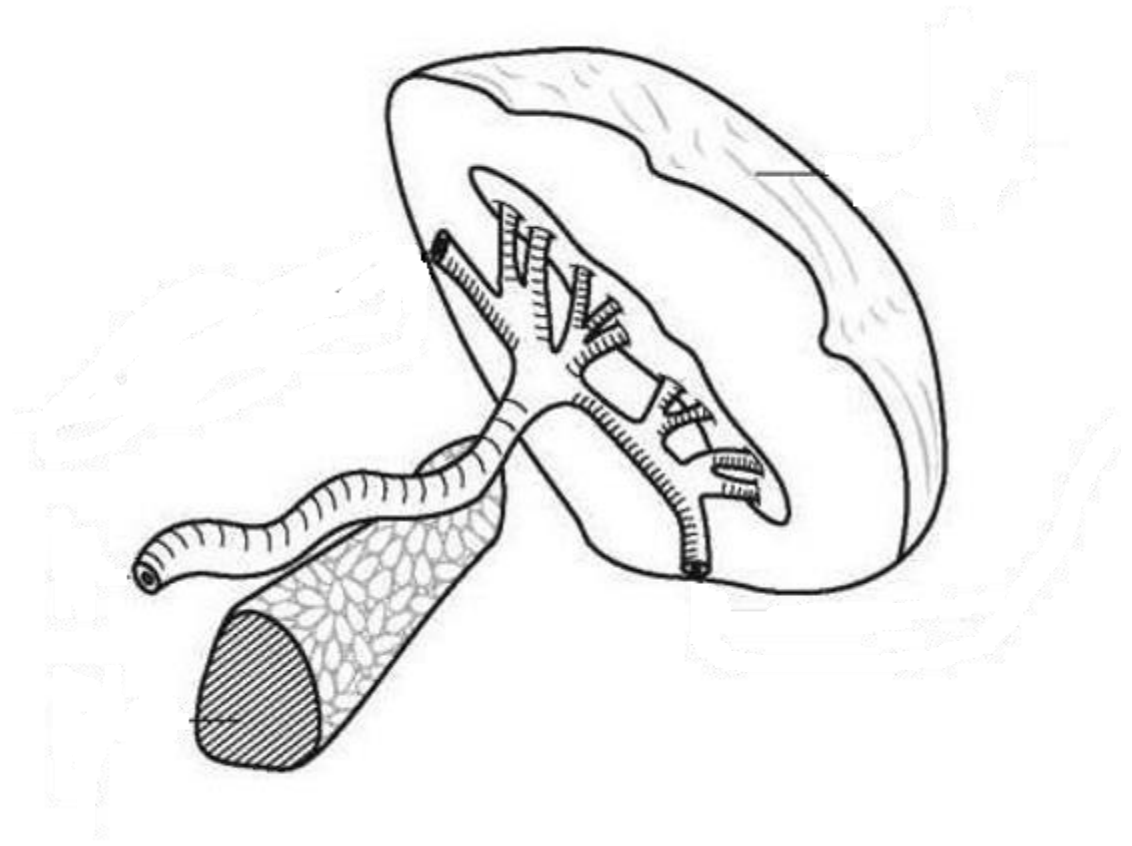
VI. BLOOD SUPPLY; LYMPH
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I. INTRODUCTION

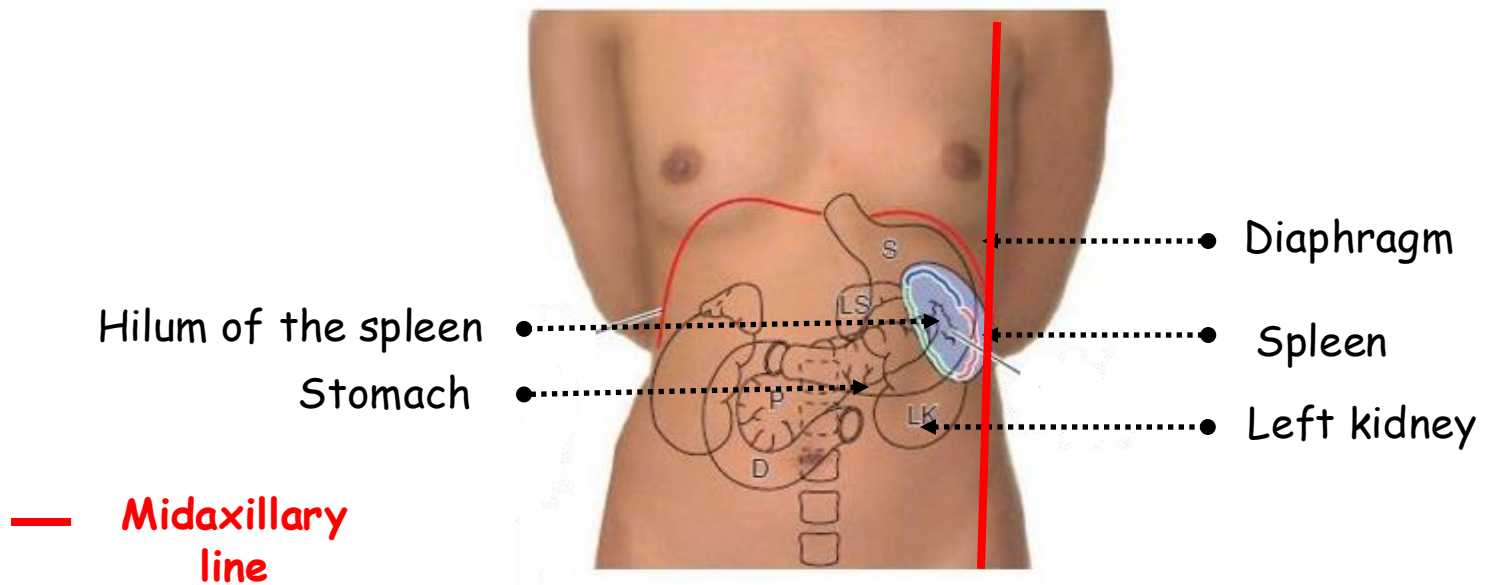
- Largest of lymphoid organs
- Situated in the left hypochondrium
- Blood container
- Haematopoiesis
- Immune function



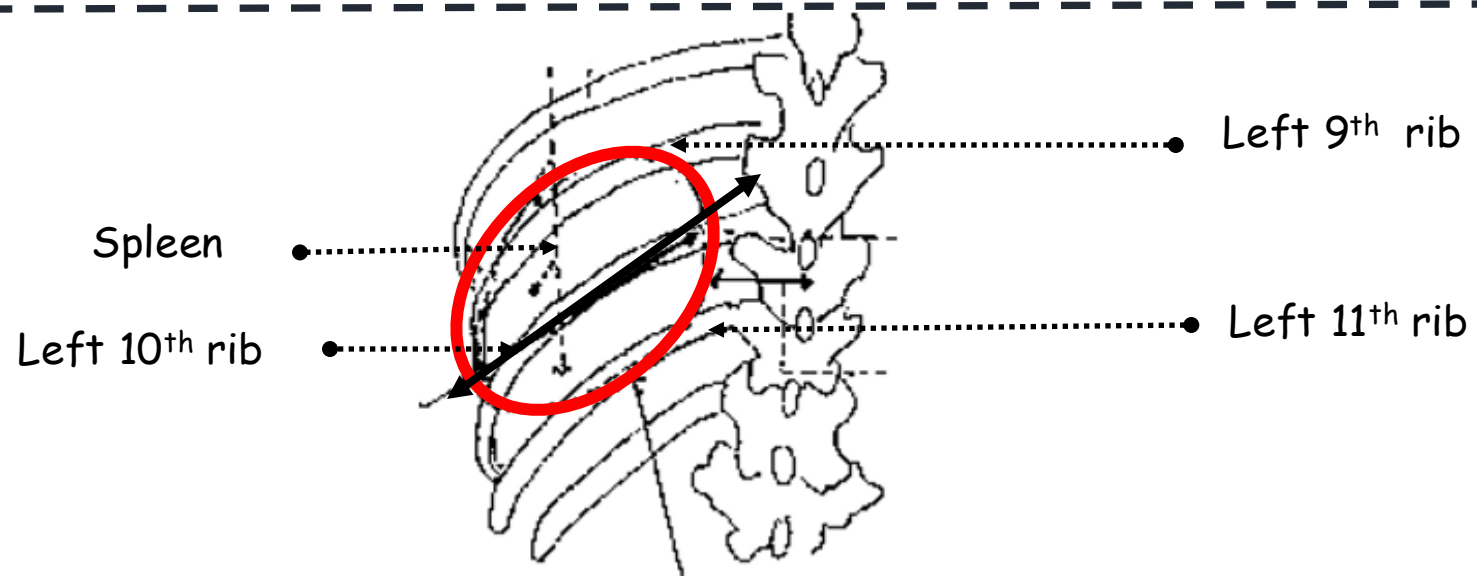
II. DESCRIPTIVE ANATOMY

A. SITUATION

- Lies under the diaphragm between the ninth and eleventh ribs on the left side of the abdomen at the left margin of the lesser sac
- Its hilum lies in the angle between the stomach and left kidney
- Long axis: along the left 10th rib
- Anterior end: midaxillary line



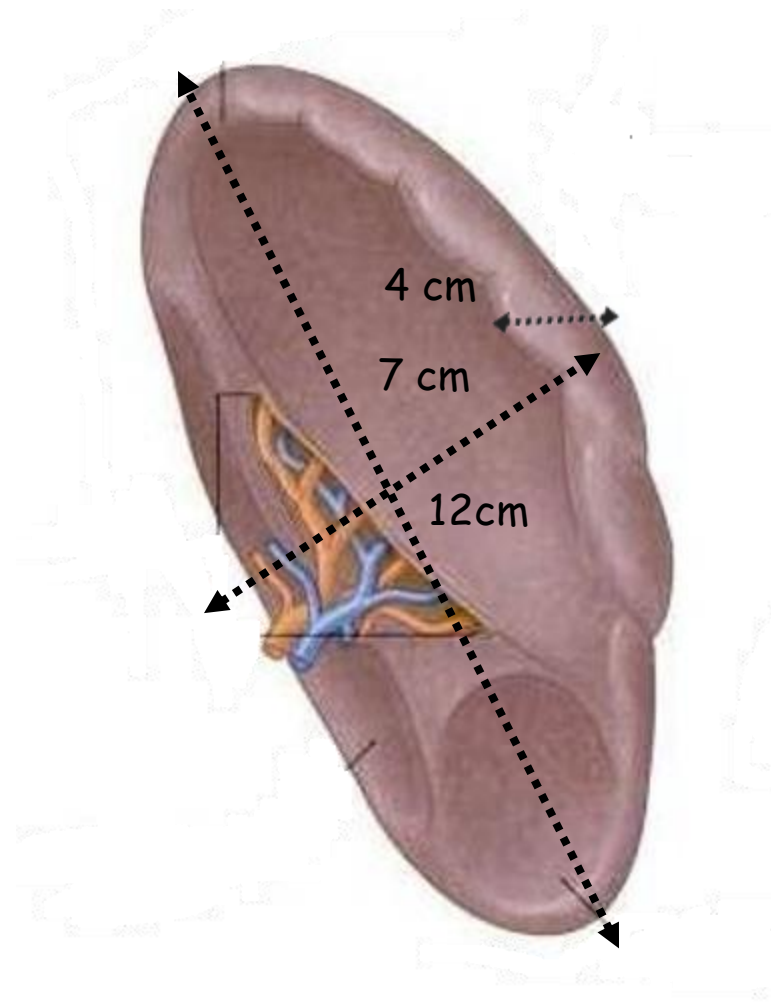
ANTERIOR VIEW OF THE SUPRACOLIC COMPARTMENT SHOWING THE SITUATION OF THE SPLEEN



SCHEMATIC VIEW SHOWING THE PROJECTION OF THE SPLEEN ON THE THORACIC WALL

B. DIMENSIONS

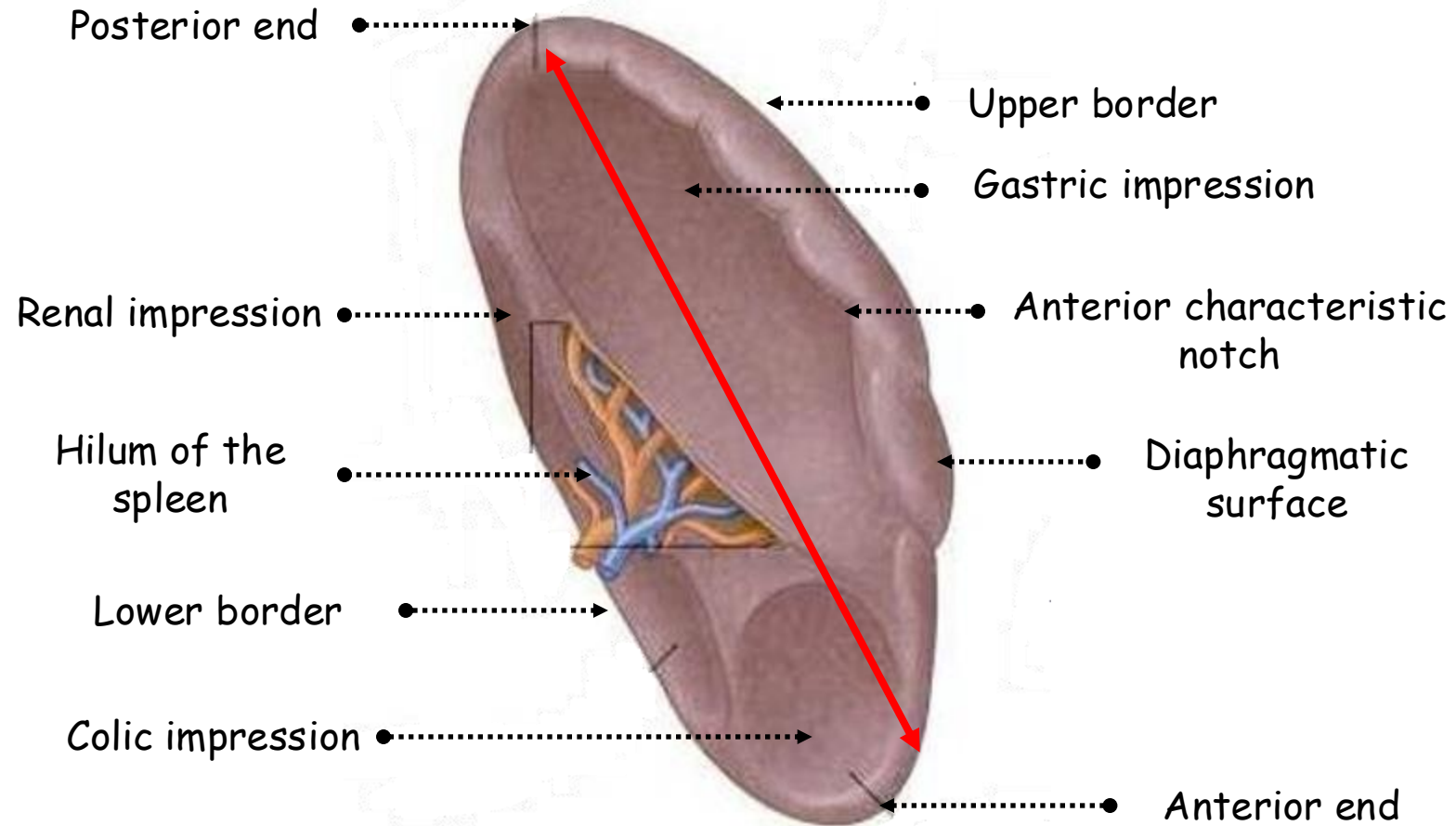
- Length: 12 cm
- Width: 7 cm
- Thickness: 4 cm
- Weight: 200 g
- Considerable variations
- Clinical significance



ANTERIOR VIEW OF THE SPLEEN

C. SHAPE

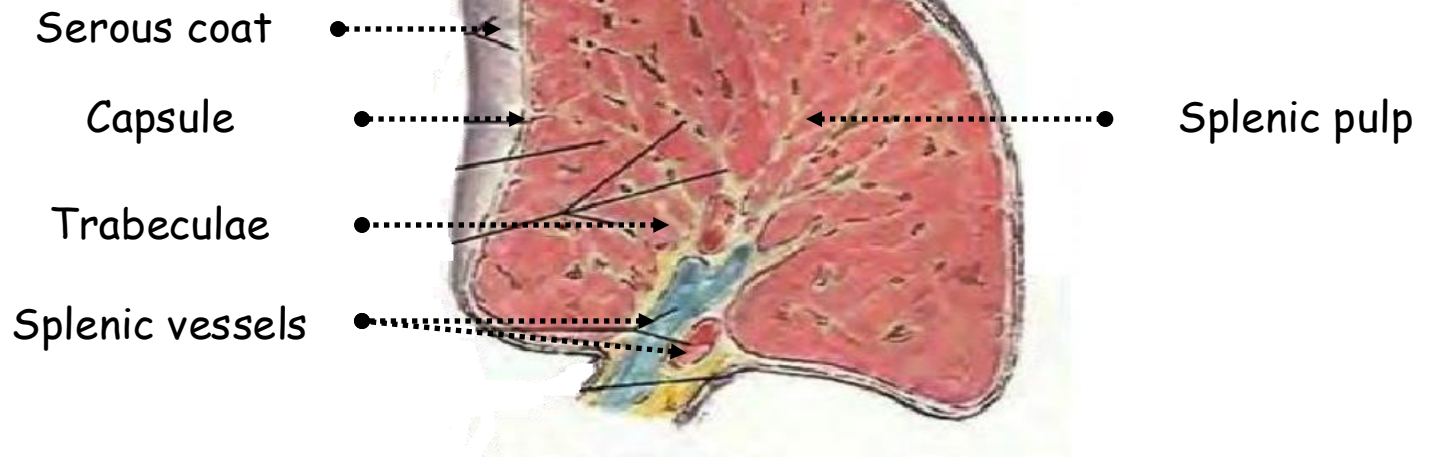
- Prismatic
- 2 surfaces:
 - Diaphragmatic
 - Visceral: hilum
- Long axis: anteroposterior
- 2 borders:
 - Upper
 - Lower
- 2 ends:
 - Posterior
 - Anterior
- Characteristic notch
- 3 impressions:
 - Gastric
 - Renal
 - Colic



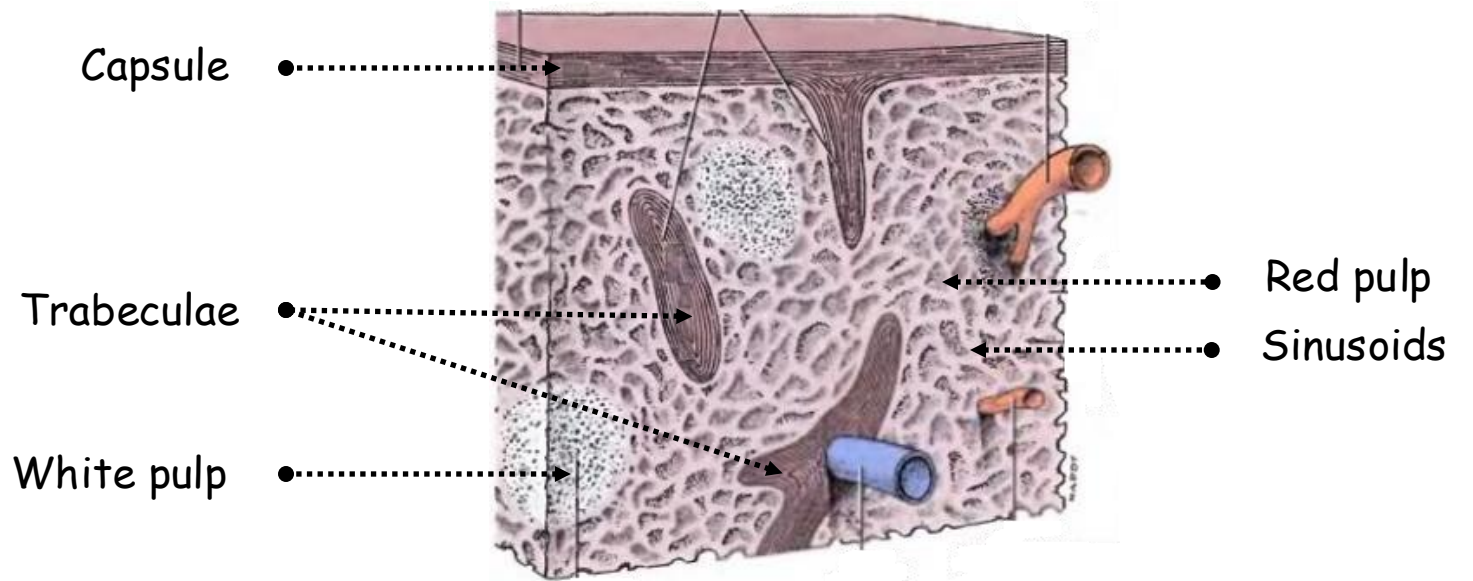
ANTERIOR VIEW OF THE SPLEEN

III. STRUCTURE

- Largest lymphoid organ
- White pulp and red pulp
- Red pulp: sinusoids
- Lymphoid follicles:
 - Scattered
 - Pathognomonic arteriole course: T cells
 - Germinal centres: B cells
- Capsule: trabeculae



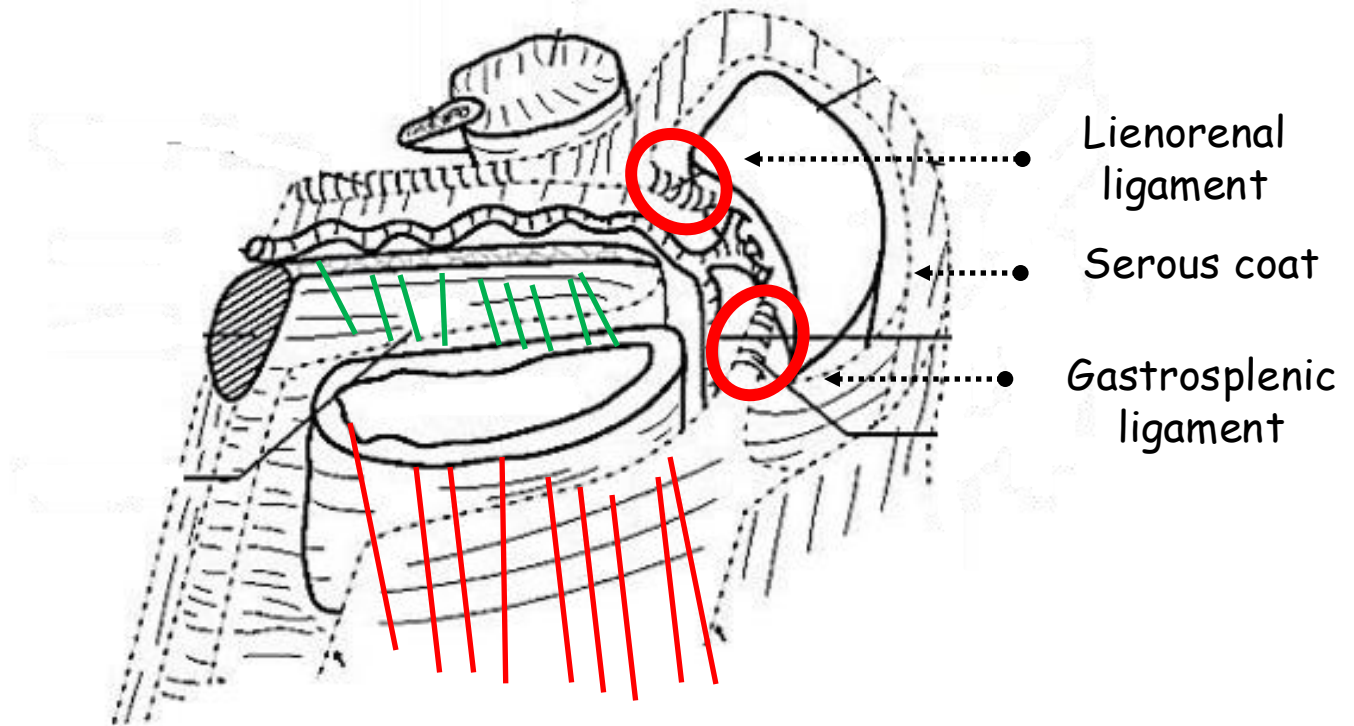
SAGITTAL SECTION OF THE SPLEEN SHOWING ITS STRUCTURE



SCHEMATIC VIEW SHOWING THE STRUCTURE OF THE SPLEEN

III. SUPPORTS

- Totally invested by **serous coat**
- **Greater omentum**
- **Gastrosplenic ligament**
- **Lienorenal ligament**



 Lesser sac

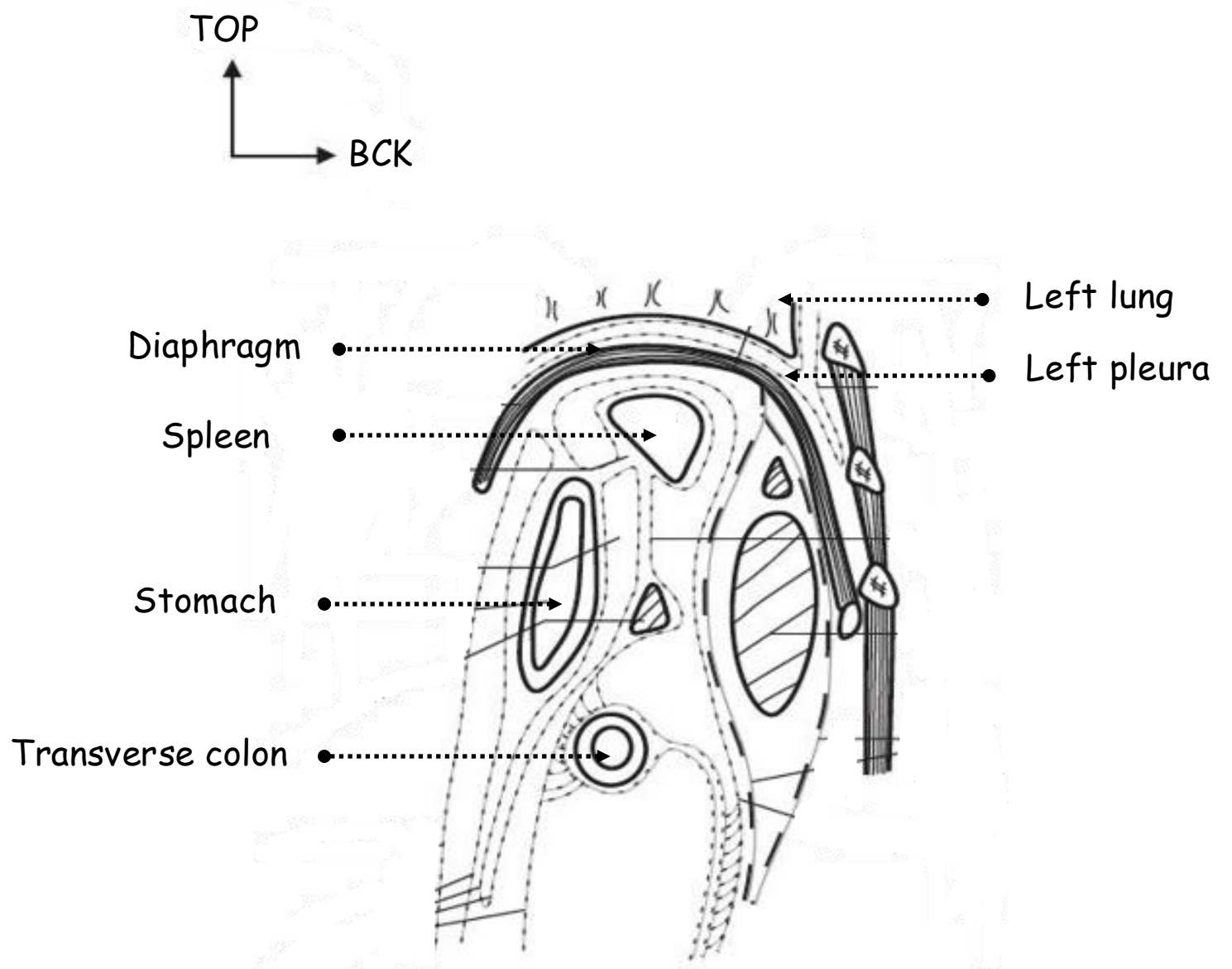
 Greater omentum

ANTERIOR VIEW OF THE LEFT PART OF THE SUPRACOLIC
COMPARTMENT SHOWING THE SUPPORTS OF THE SPLEEN

V. ANATOMICAL RELATIONS

A. DIAPHRAGMATIC SURFACE

- Diaphragm
- Left pleura and lung
- 9th to 11th ribs



SAGITTAL SECTION OF THE SUPRACOLIC COMPARTMENT

B. VISCERAL SURFACE

1. Gastric impression:

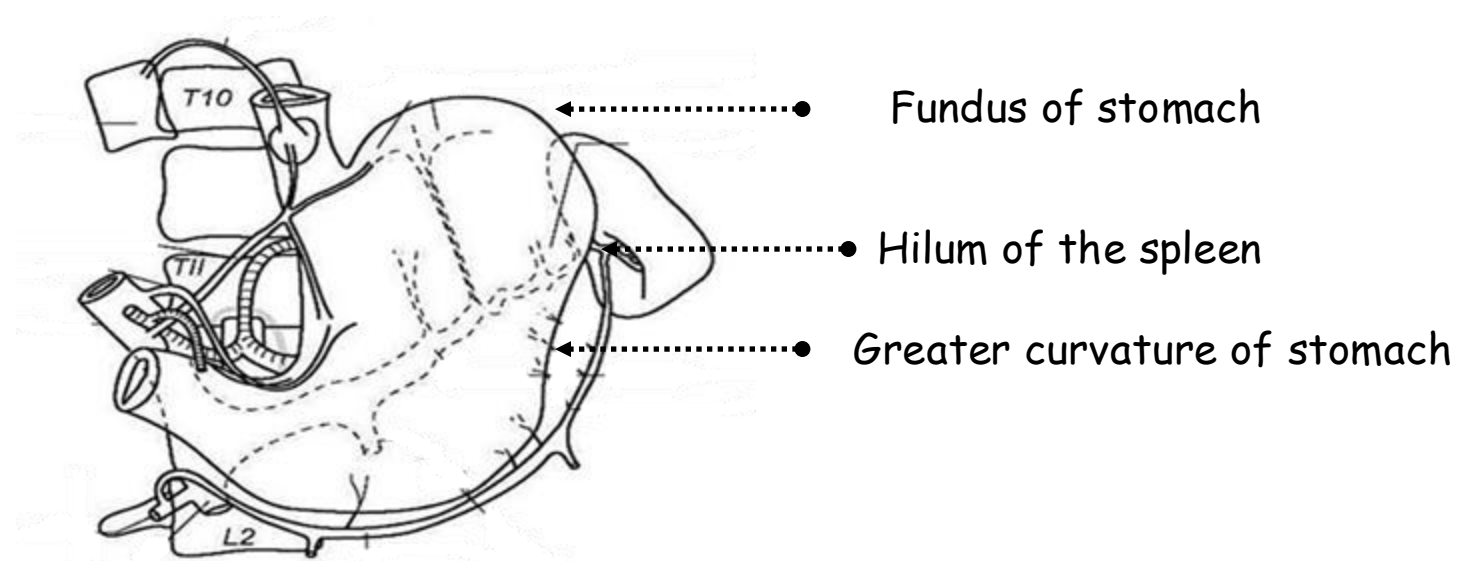
- Suprahilar
- Fundus of the stomach
- Gastrosplenic ligament to the greater curvature of stomach

2. Renal impression:

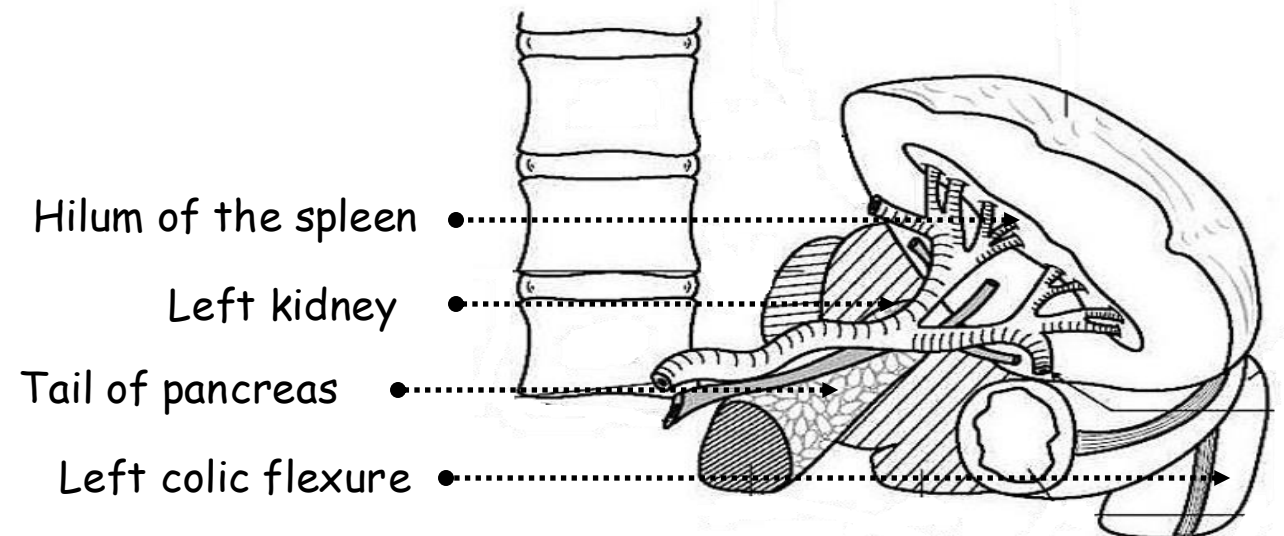
- Infrahilar
- Posterior
- Anterior surface of the left kidney
- Lienorenal ligament

3. Colic impression:

- Infrahilar
- Anterior
- Left colic flexure
- Phrenicocolic ligament
- Diaphragm



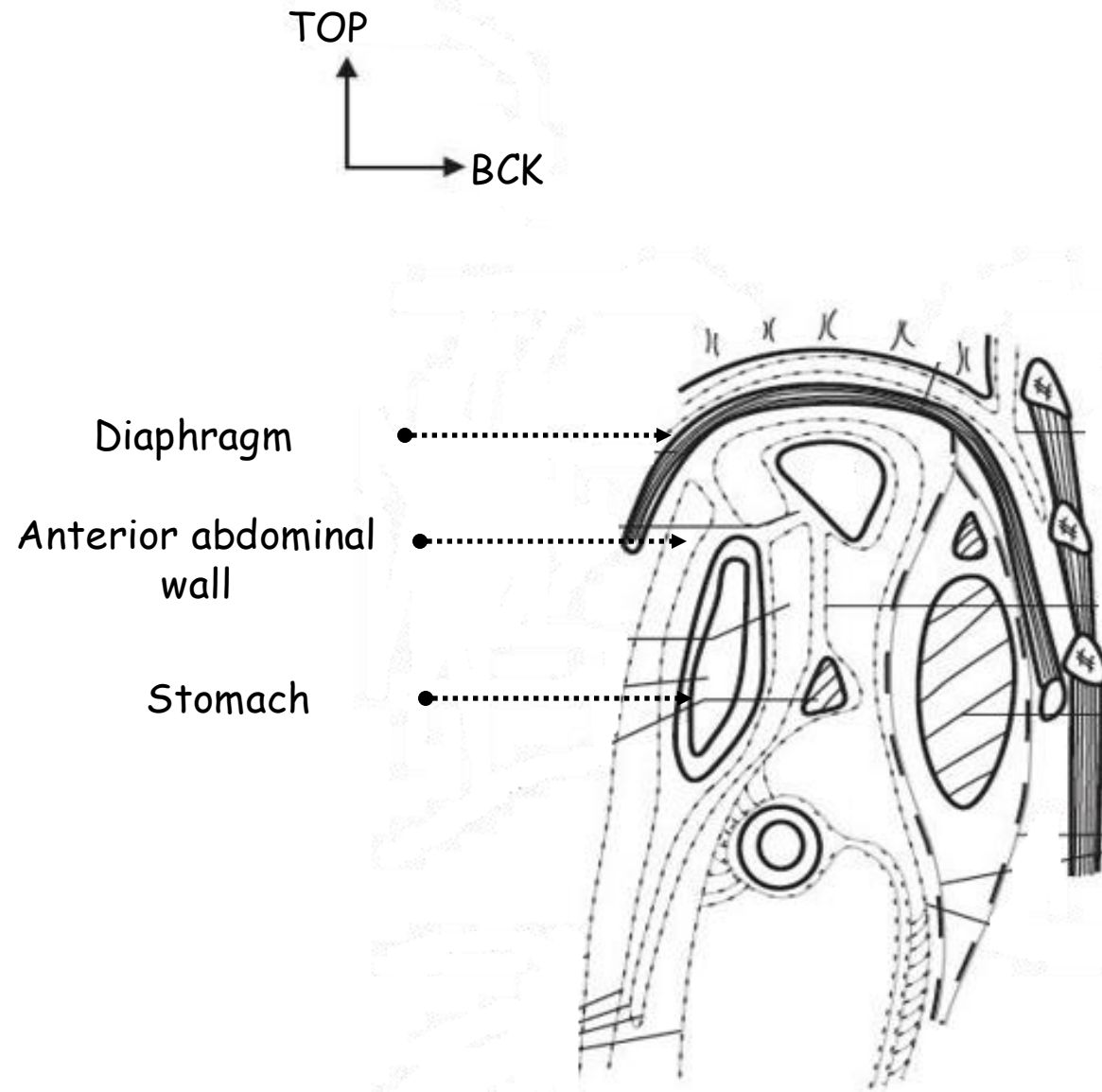
ANTERIOR VIEW OF THE LEFT PART OF THE SUPRACOLIC COMPARTMENT



ANTERIOR VIEW OF THE LEFT PART OF THE SUPRACOLIC COMPARTMENT

C. UPPER BORDER

- Separates the gastric impression inside and the diaphragmatic surface outside
- Anterior abdominal wall



SAGITTAL SECTION OF THE SUPRACOLIC COMPARTMENT

D. LOWER BORDER

- Separates the renal impression **inside** and the diaphragmatic surface **outside**
- **Diaphragm** outside
- Upper part of the **lateral border of the left kidney** inside

Diaphragm



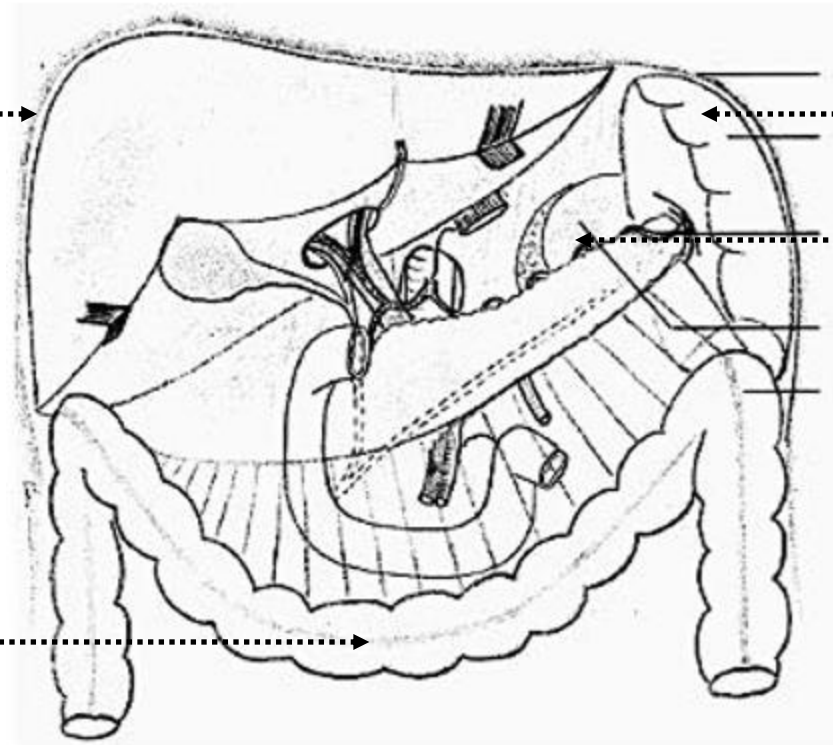
Spleen



Left kidney



Transverse
colon



ANTERIOR VIEW OF THE SUPRACOLIC COMPARTMENT

E. ANTERIOR END

- Splenic flexure of the colon

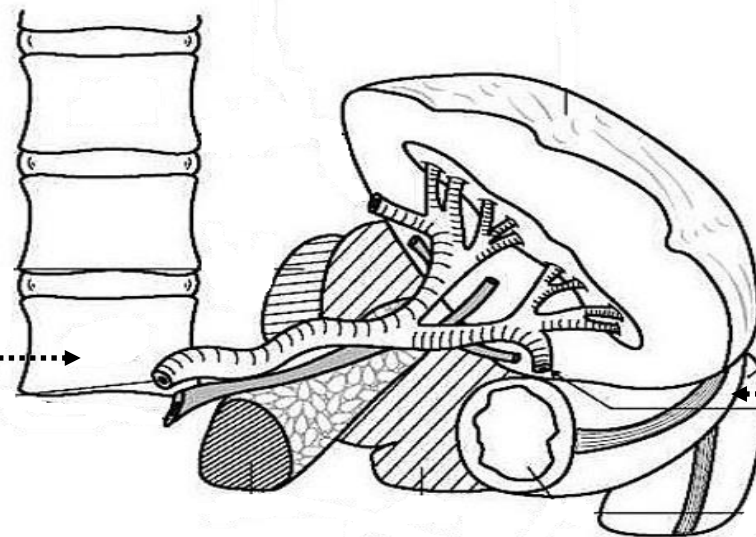
F. POSTERIOR END

- T12 vertebra

G. ON THE SURFACE

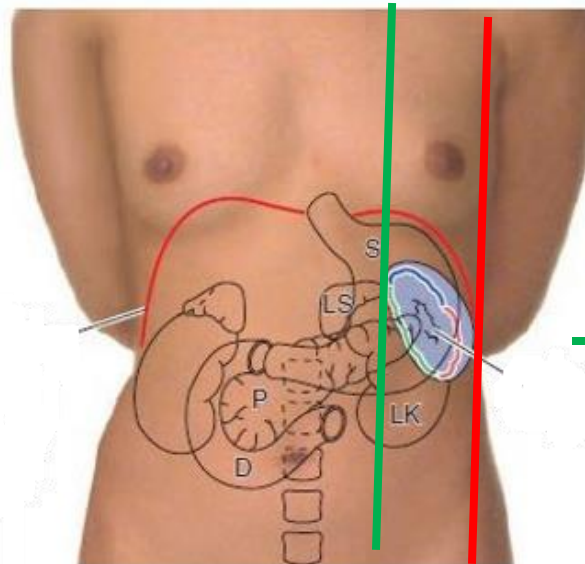
- Forwards: midaxillary line
- Backwards: midclavicular line
- Upwards: 9th left rib
- Downwards: 11th left rib

T12
vertebra



Splenic
flexure

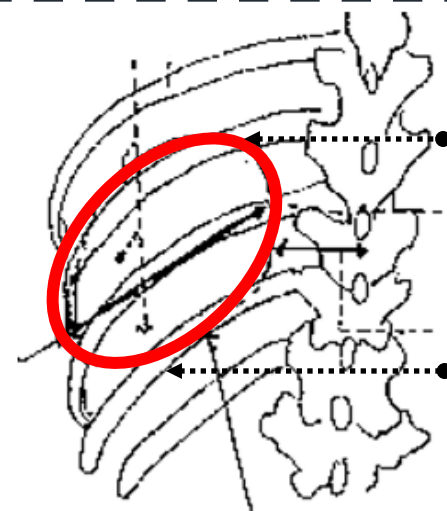
ANTERIOR VIEW OF THE LEFT PART OF THE SUPRACOLIC COMPARTMENT



ANTERIOR VIEW OF THE SUPRACOLIC COMPARTMENT

Midaxillary
line

Midclavicular
line



Left 9th
rib

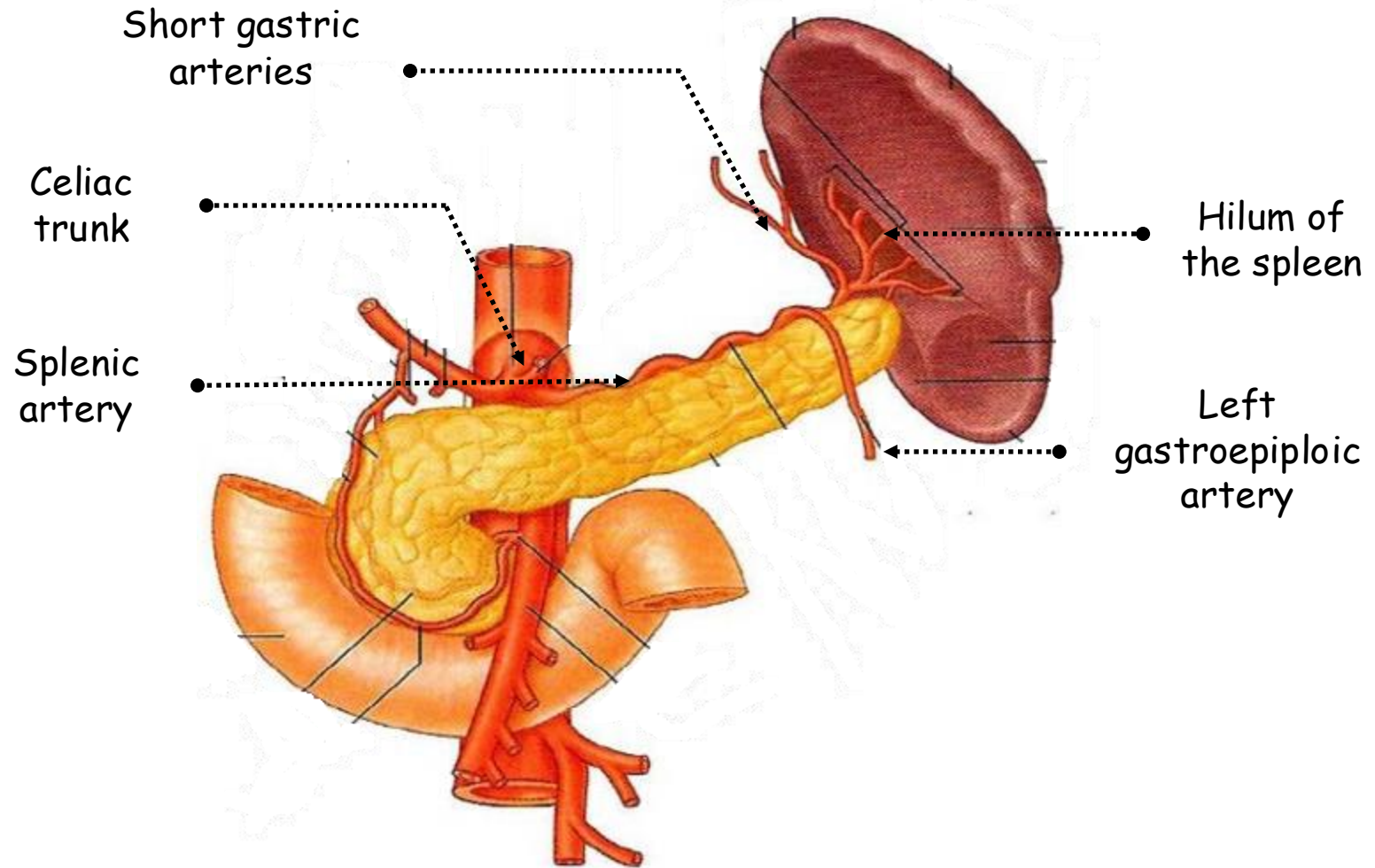
Left 11th
rib

SCHEMATIC VIEW SHOWING THE PROJECTION OF THE SPLEEN ON THE THORACIC WALL

VI. BLOOD SUPPLY; LYMPH DRAINAGE AND NERVE SUPPLY

A. ARTERIES

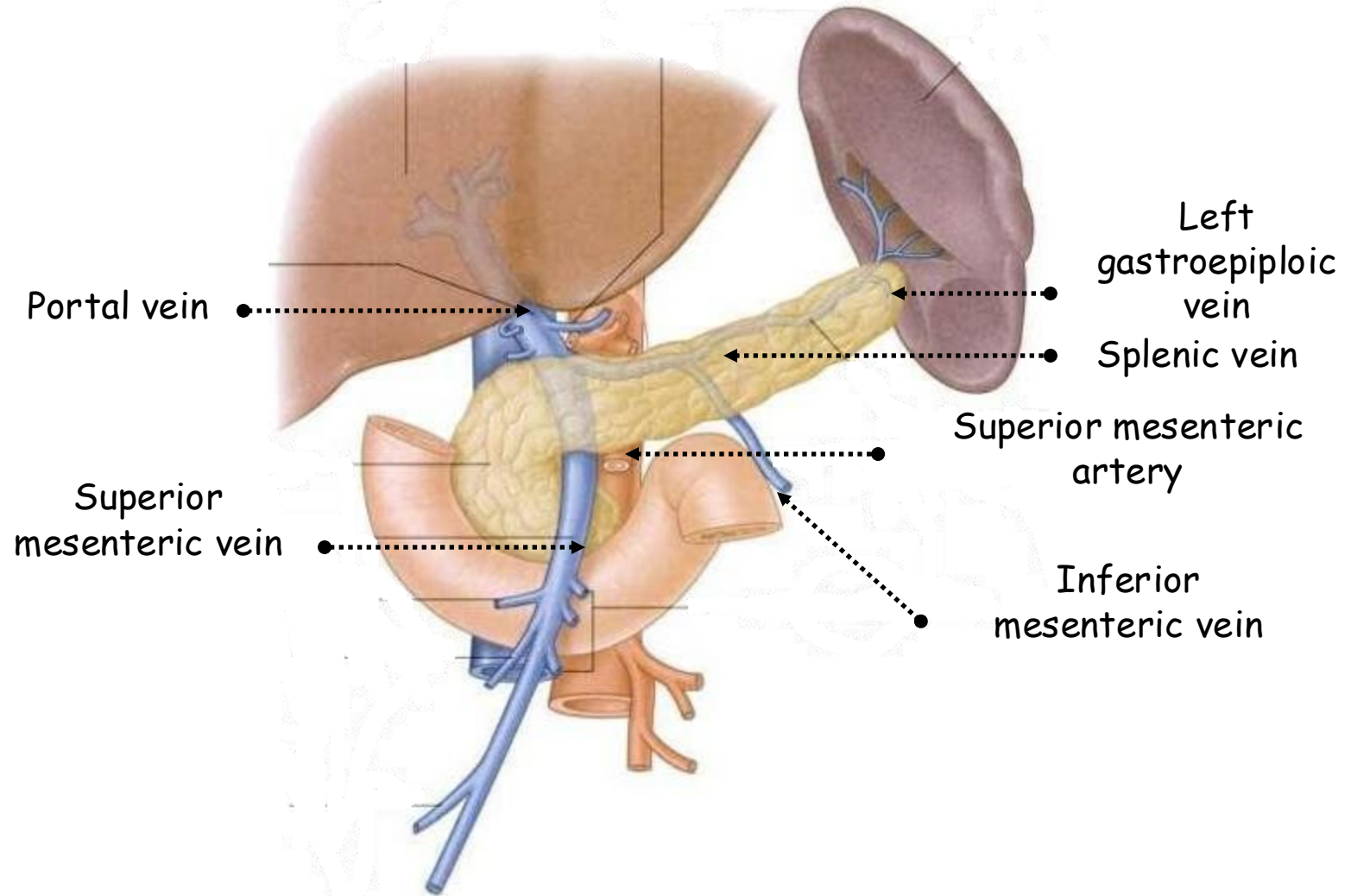
- Splenic artery
- Internal diameter: 5 mm
- Terminal branch of celiac trunk
- Retroperitoneal portion
- Intraperitoneal portion
- Distal division from the hilum
- 4 segments
- Branches:
 - Pancreatic
 - Short gastric
 - Left gastroepiploic artery



ANTERIOR VIEW OF THE DUODENUM AND PANCREAS SHOWING THE ARTERIES OF SPLEEN

B. VEINS

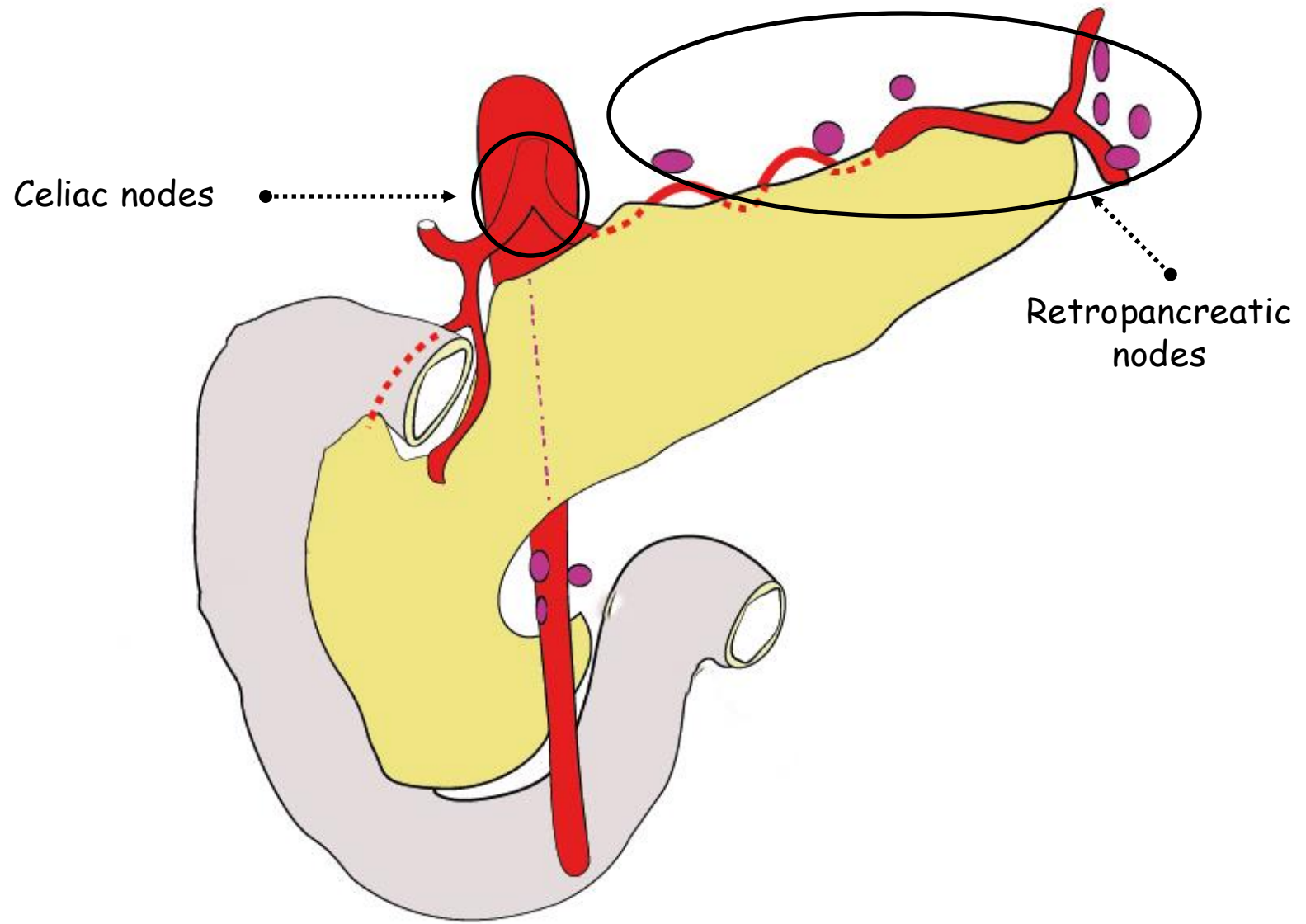
- Splenic vein
- Drains the sinusoids
- Follows the course of the artery
- Beneath the artery
- In front of the left renal vein and the origin of the superior mesenteric artery
- 75° end angle forming with the superior mesenteric vein the portal vein
- Internal diameter: 10 mm
- Tributaries:
 - Short gastric
 - Left gastroepiploic vein
 - Pancreatic veins
 - Inferior mesenteric vein



ANTERIOR VIEW OF THE DUODENUM AND PANCREAS SHOWING THE VEINS OF SPLEEN

C. LYMPH DRAINAGE

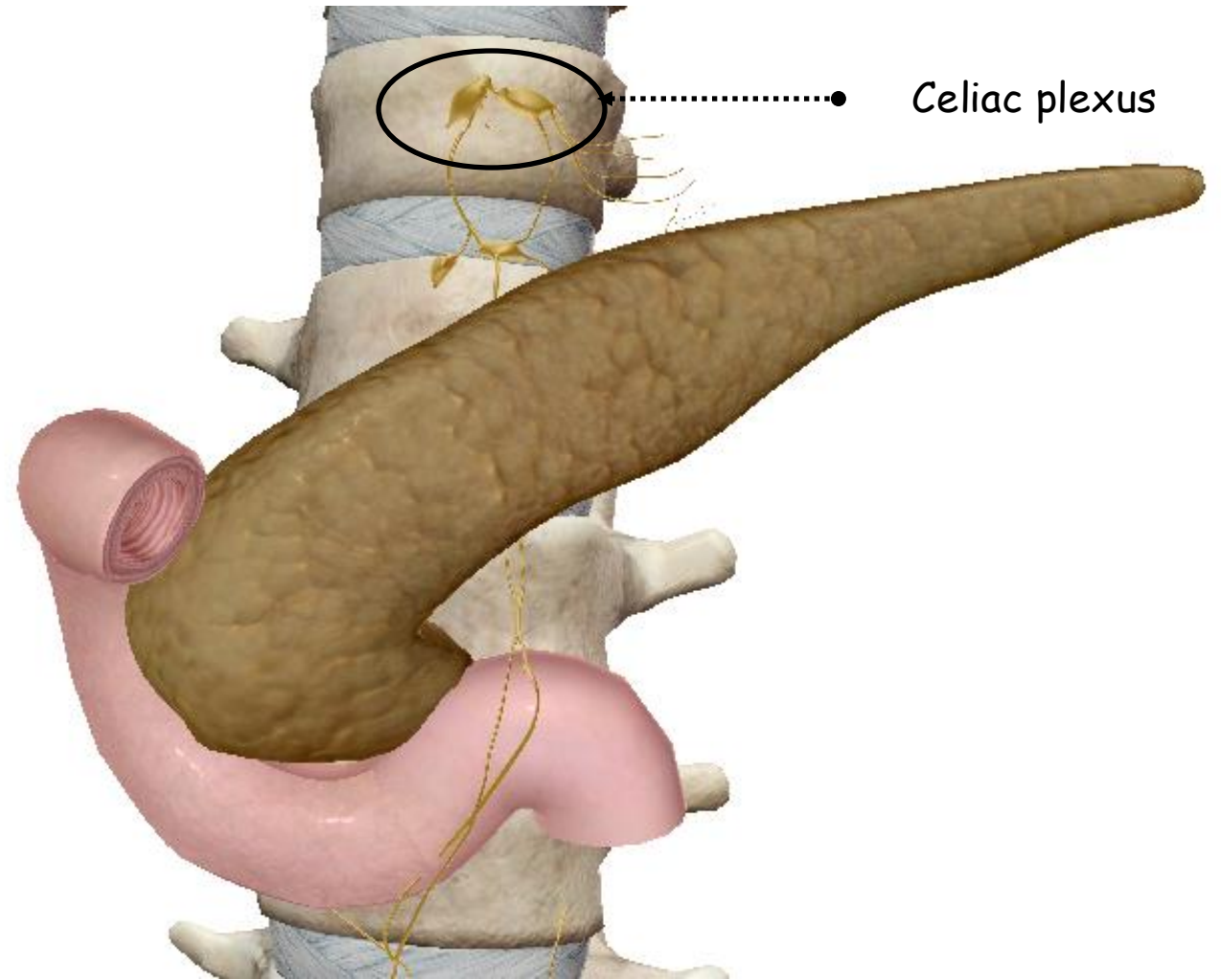
- Hilum
- Retropancreatic nodes
- Celiac nodes



ANTERIOR VIEW OF THE DUODENUM AND PANCREAS

D. NERVES

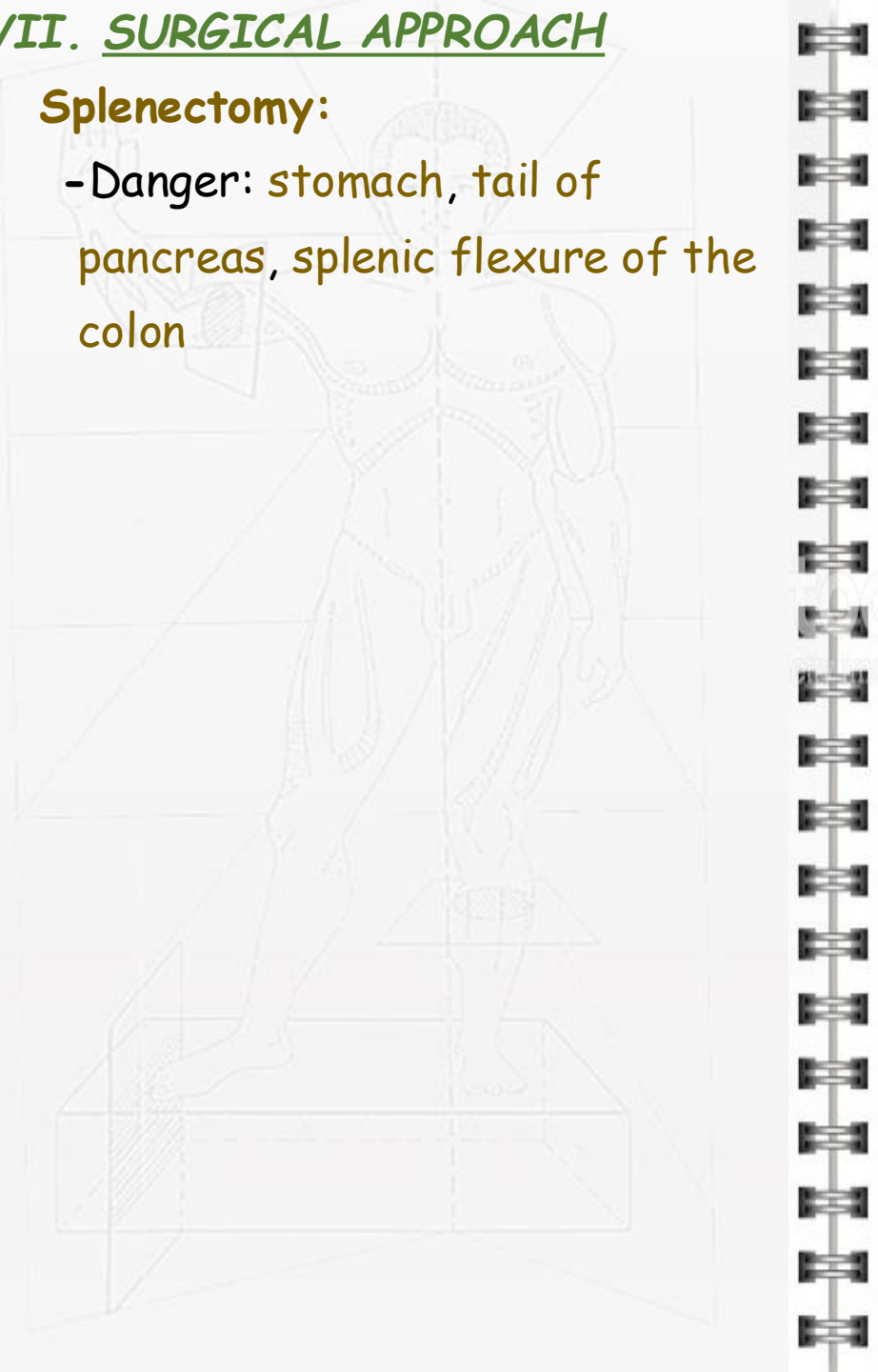
- Sympathetic supply only
- Celiac plexus



ANTERIOR VIEW OF THE DUODENUM AND PANCREAS SHOWING THE CELIAC PLEXUS

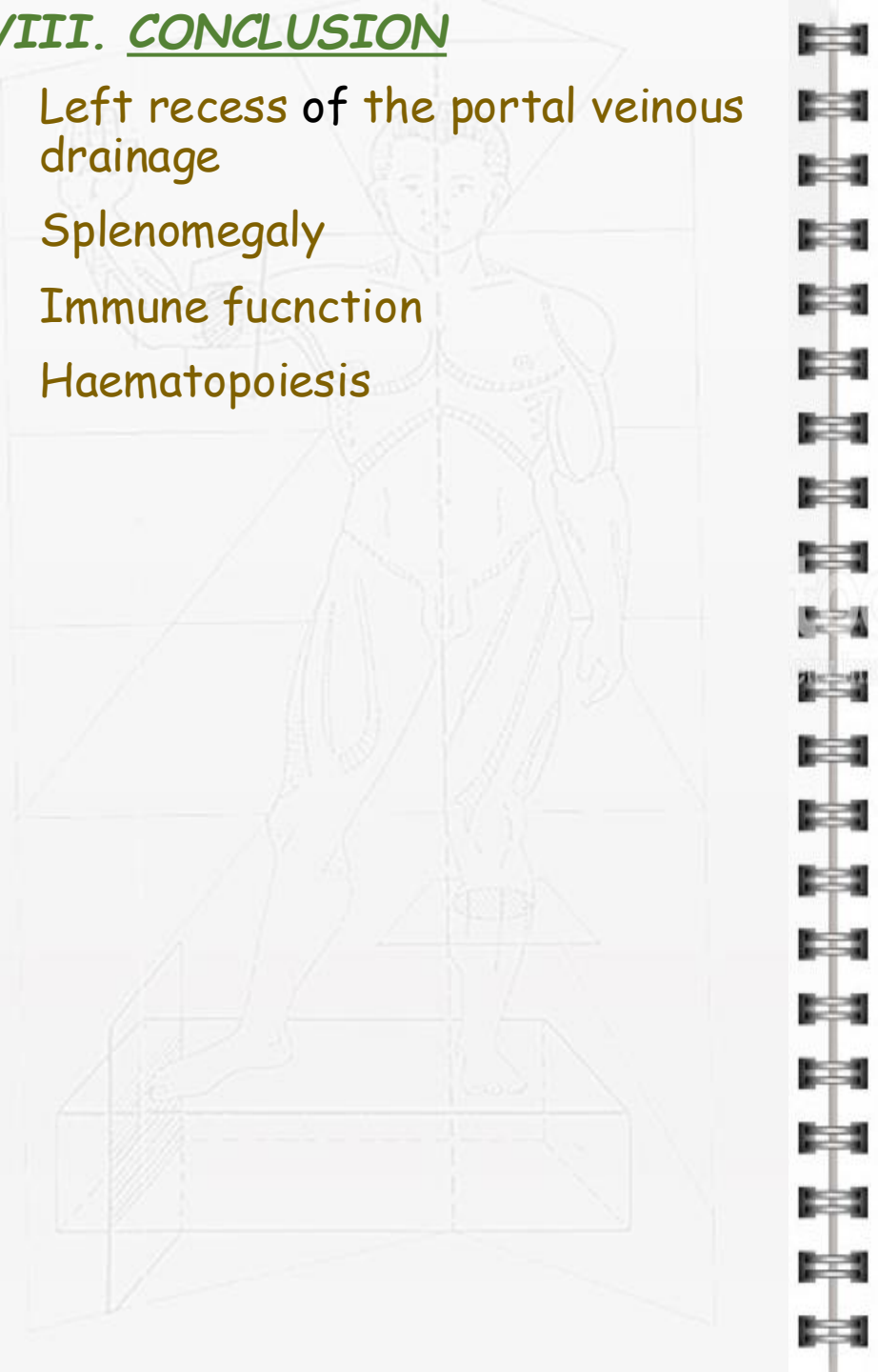
VII. SURGICAL APPROACH

- **Splenectomy:**
 - Danger: stomach, tail of pancreas, splenic flexure of the colon



VIII. CONCLUSION

- Left recess of the portal venous drainage
- Splenomegaly
- Immune function
- Haematopoiesis





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