

AZYGOS SYSTEM OF VEINS

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Learning objectives

- ❖ Introduction
- ❖ Formation
- ❖ Course
- ❖ Relations
- ❖ Tributaries
- ❖ Applied anatomy
- ❖ Hemiazygos & Accessory hemiazygos

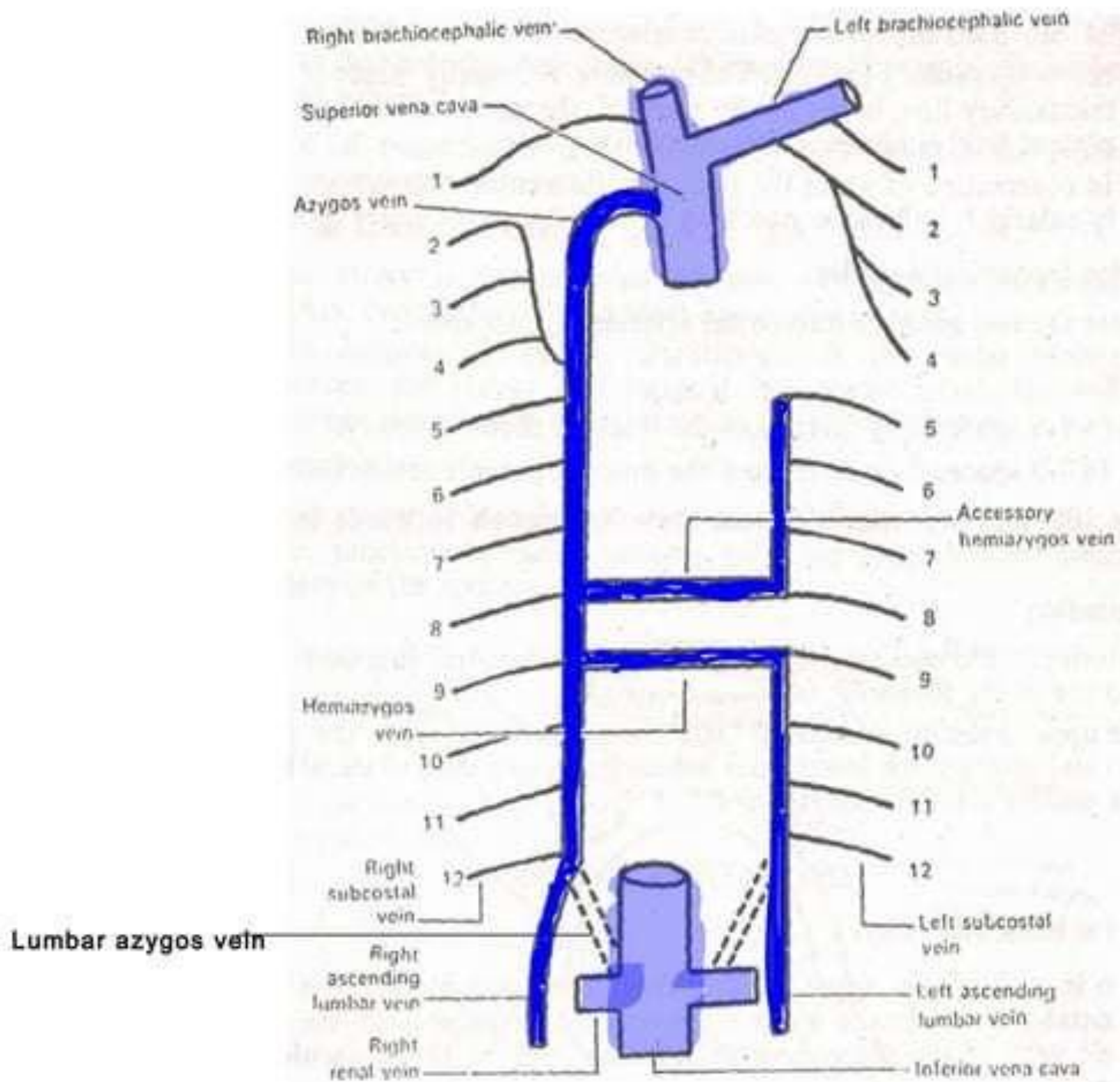
Azygos =unpaired/ single/ without companion

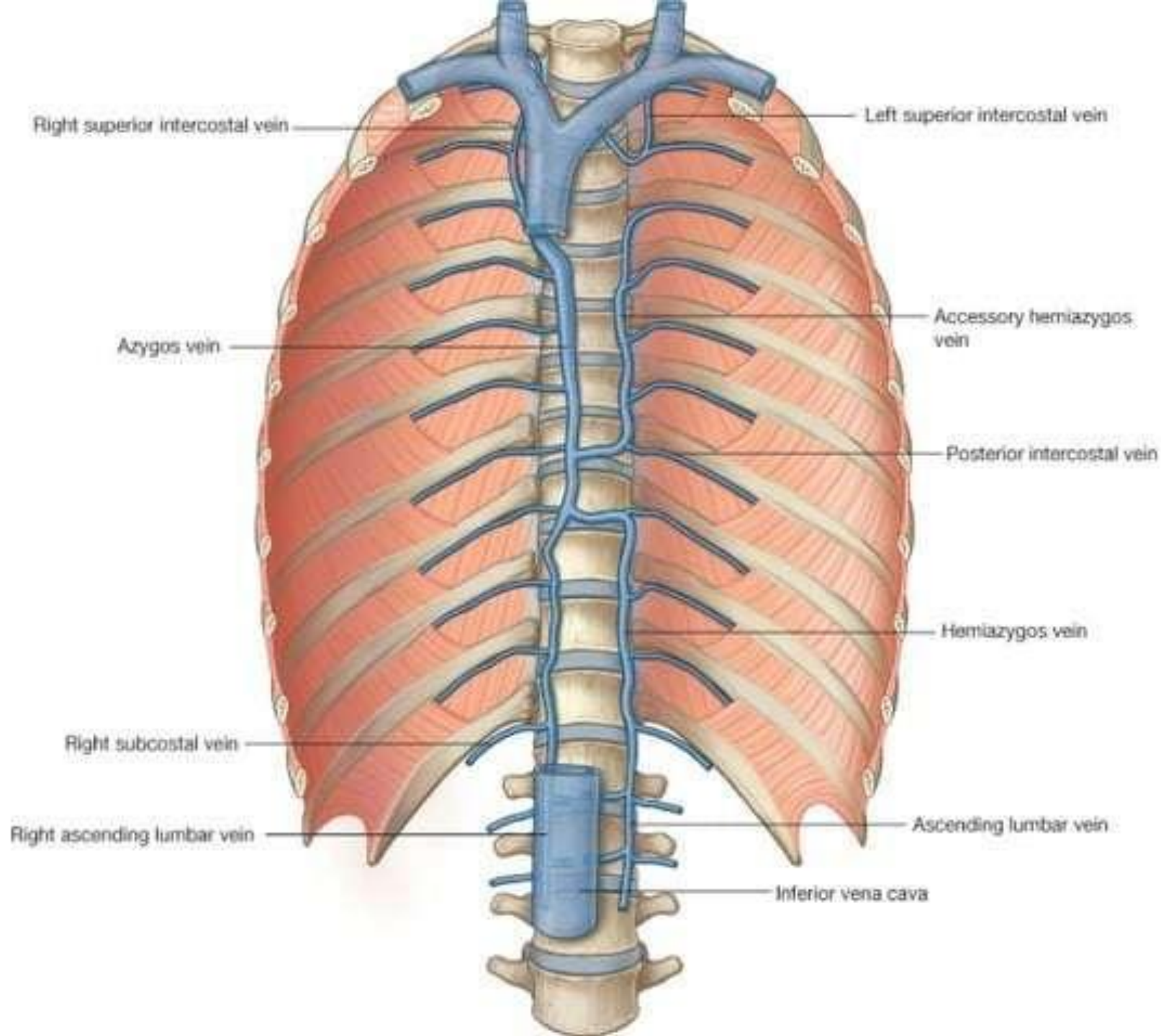
- **INTRODUCTION:**

- Straight, para-vertebral, present only on rt side, have valves
- Drain blood from post abd wall & post mediastinum
- Communicates with venacaval sys ant & vertebral venous system post
- **Location** - upper part of post abd wall & post mediastinum
- Forms an important collateral channel connecting SVC & IVC

FORMATION:

- Union of Rt asc lumbar vein & Rt subcostal vein at T-12 (common)
- As lumbar azygos v from back of IVC, at level of Lt renal vein
- As a continu of rt subcostal vein
- rarely from rt renal or right 1st lumbar vein





Superior intercostal vein

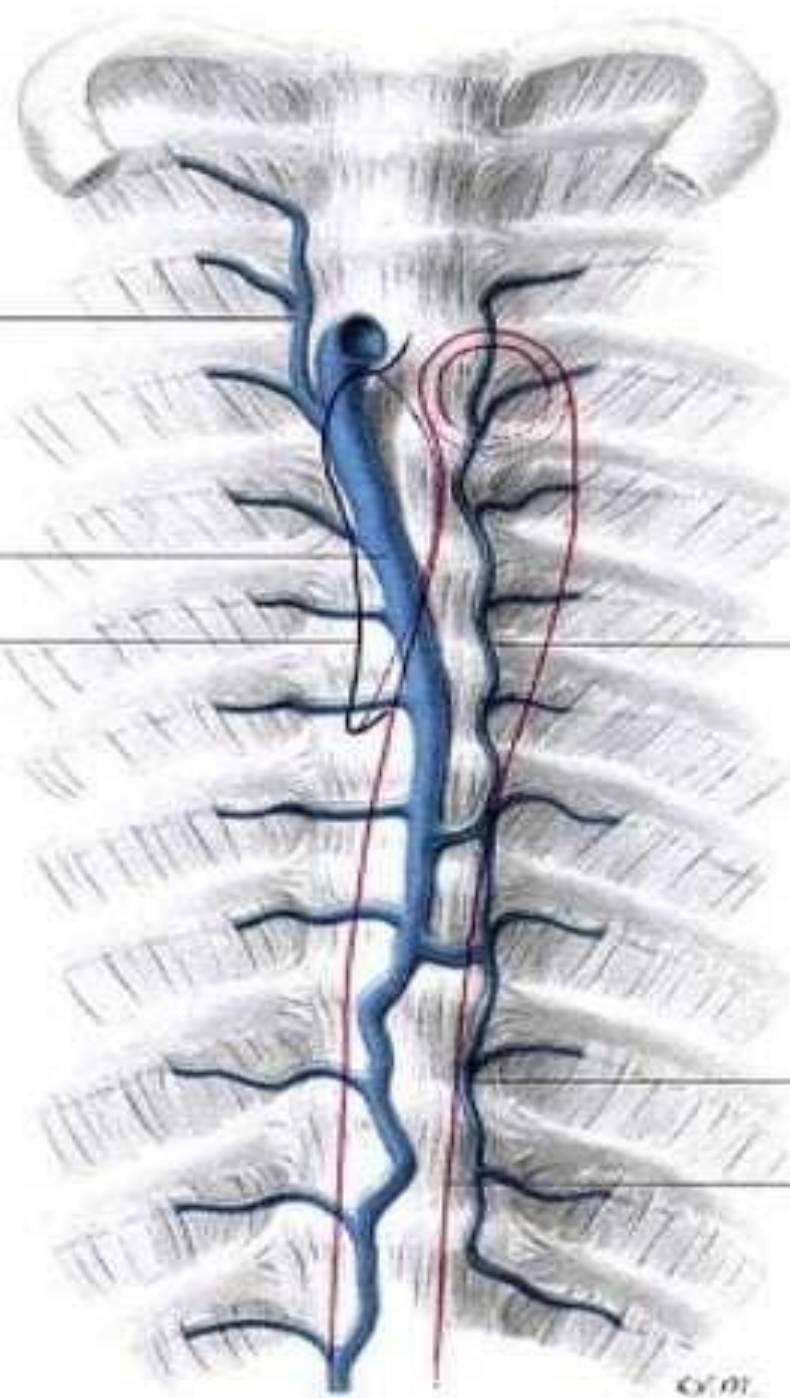
Azygos vein

*Right lung;
outline of root*

*Accessory
hemiazygos vein*

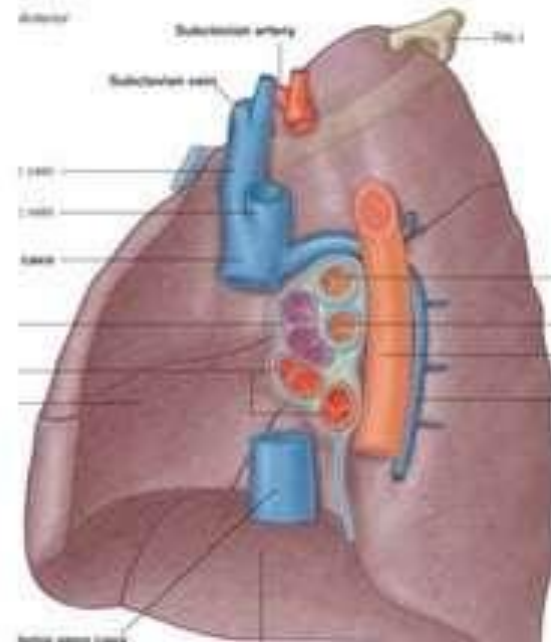
Hemiazygos vein

*Descending
thoracic aorta*

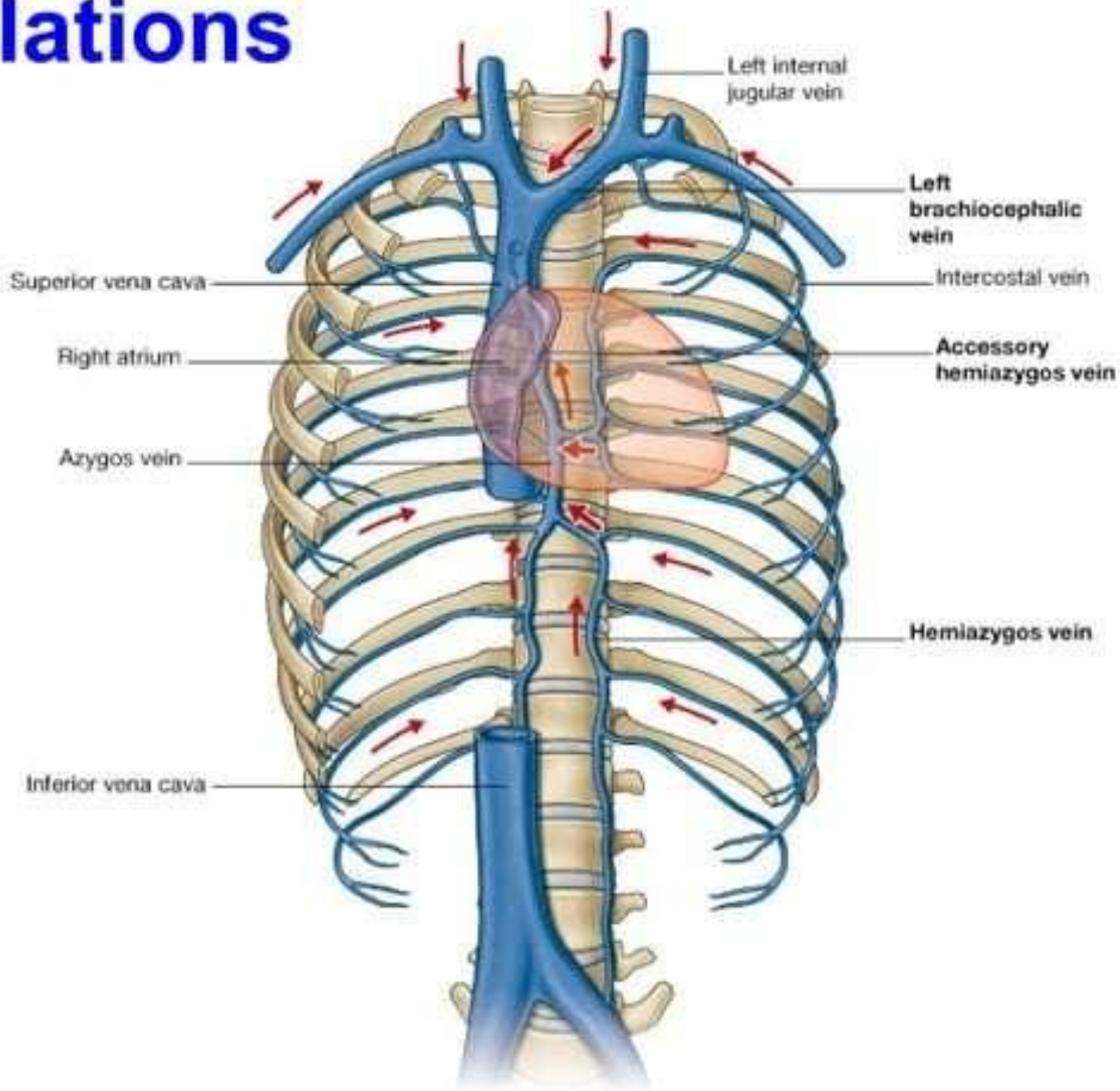


Course & termination

- Ascends up, enters thorax- via aortic opening of diaphragm
- Passes upwards in thorax in front of vertebral column ant to lower 8 thoracic vert
- Opp T-4 arches above root of Rt lung & ends in SVC
- May pass via apex of rt lung; med part of apex- lobe of azygos v



Relations



• Tributaries:

- i. Rt post IC veins except 1st vein (rt BC v)
- ii. 2nd, 3rd, 4th IC vs unite to form the rt sup IC V which enters arch of azygos v
- iii. 5th to 11th end separately
- iv. V formed by union of rt subcostal v & rt asc lumbar v (may form azygos v itself)
- v. Hemiazygos v at T-8 level
- vi. Acc hemiazygos vein at T-7 level
- vii. Rt bronchial v (last tribu)
- viii. Oeso, pericardial & mediastinal vs

Applied anatomy

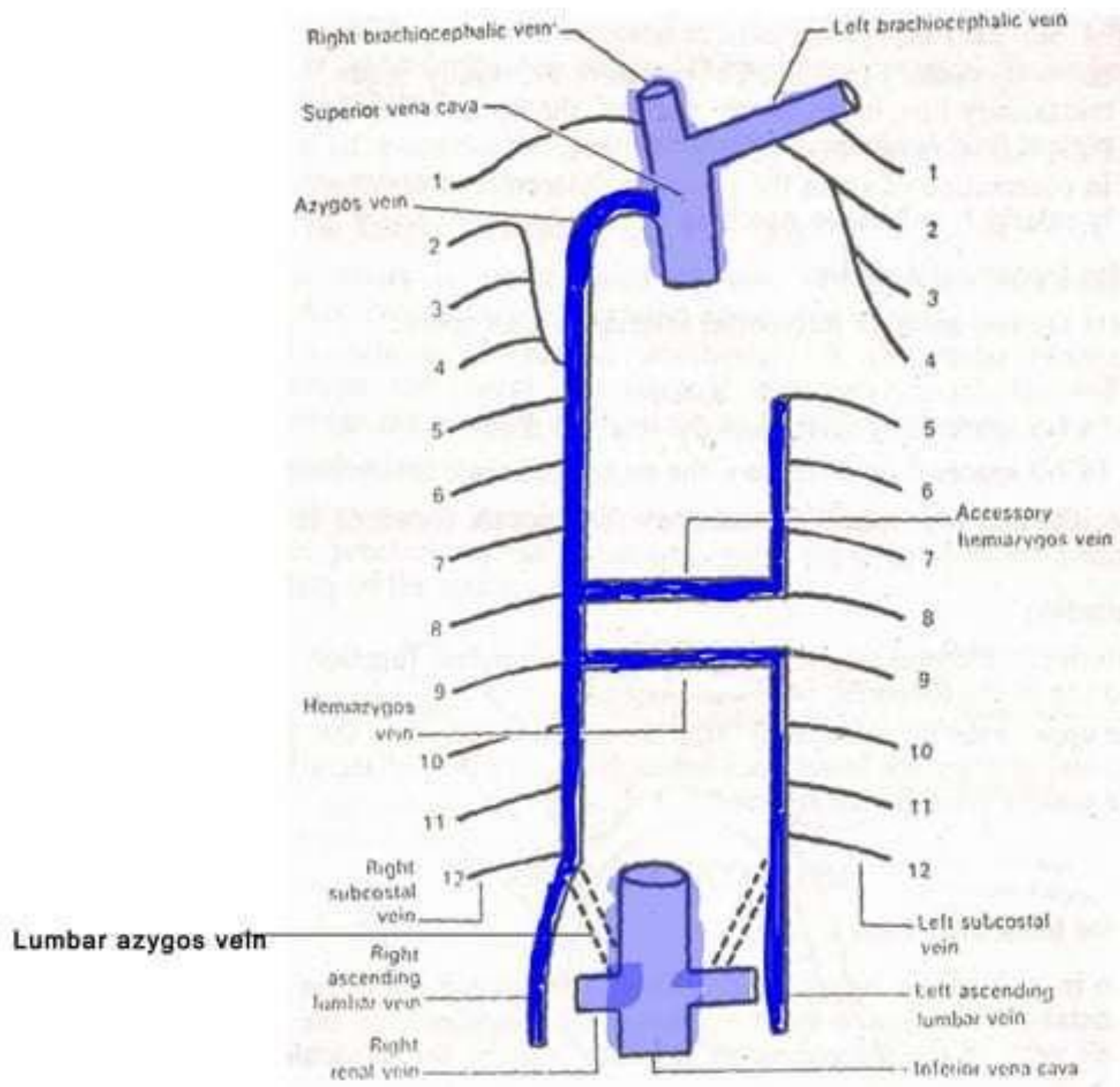
- Obstruction of SVC → serves as a channel to shunt blood from upper part of body to IVC.

Hemiazygos vein

- Also k/a inferior hemiazygous vein
Mirror image of lower part of azygos v
- Begins-union of Lt asc lumbar & Lt subcostal vs
- may arise from post part of Lt renal vein
- Pierces Lt crus of diaph; ascends on Lt side of vert column (overlapped by aorta)
- At T-8 level turns to rt ; passes behind aorta, oeso & thoracic duct ; joins azygos v

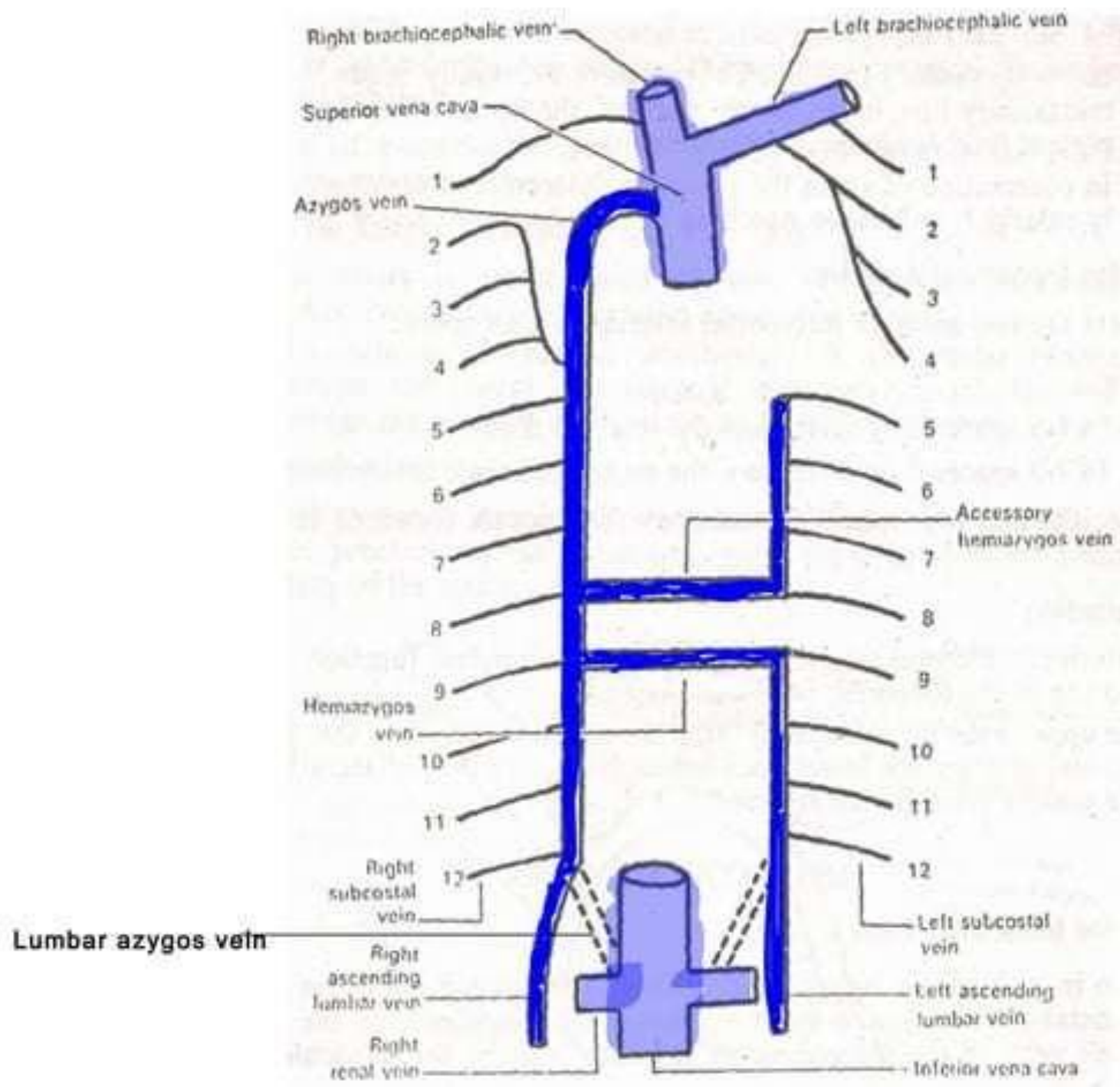
Tributaries:

- Lt asc lumbar v
- Lt subcostal v
- Lower 3-4 IC Vs of Lt side



Accessory hemiazygos vein

- Also k/a Sup hemiazygos vein
- Cont'n of 4th post IC V of Lt side
- Runs down on Lt side of vert column
- At T-7 level turns rt – ends in azygos v (may join hemiazygos v)
- **Tributaries:**
 - 5,6,7 & 8th post IC Vs of Lt side
 - Lt bronchial veins (at times)





Thank You

&

Good Luck