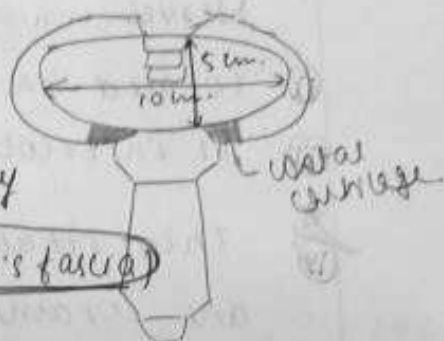


THORACIC INLET

- ① superior aperture of thoracic cavity.
- ② reniform in shape.
- ③ inlet slopes downwards & anteriorly at an (45°)
- ④ partially closed on each side by suprapleural membrane (Sibson's fascia)



⇒ Boundaries:

- ① Ant - upper border of manubrium sterni.
- ② Post - body of 1st thoracic vertebra (T₁)
- ③ Each side - 1st rib + its costal cartilage.

Structures passing through thoracic inlet:

- ① 2 tubes - i) Trachea
ii) Oesophagus

- ② 2 sets of Arteries

Branches of Arch of Aorta i.e.

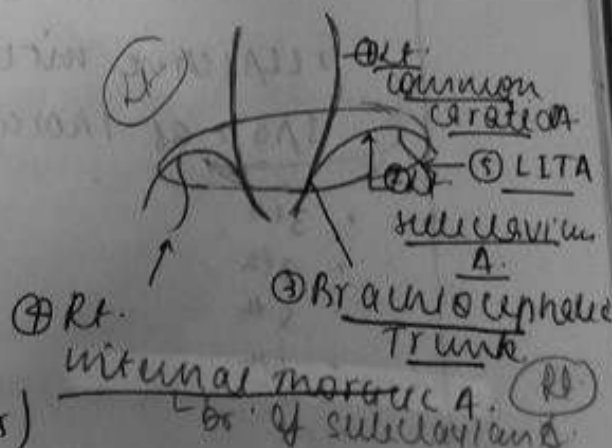
- ③ 4 sets of neural str.

(i) Rt. & Lt. Vagus N. (X)

(ii) Rt. & Lt. Phrenic N. (C₃, C₄, C₅)

(iii) Rt. & Lt. Sympathetic Trunk.

(iv) Rt. & Lt. 1st Thoracic N. (Ventral rami)



* Apices of lungs covered by cervical pleura

also project upward through inlet into root of Neck.

INTERCOSTAL NERVES

- (i) ant/ventral primary rami of Thoracic Spinal Nerves.
- (ii) located in intercostal space
- (iii) 11 intercostal Nerves in Thoracic wall.
- (iv) They retain their segmental character unlike ant. rami of other regions which form plexus
 ex: lumbar, sacral, brachial, cervical plexus

INTERCOSTAL NERVES



• remain confined within respective intercostal space of Thoracic wall.

- 3rd
- 4th
- 5th
- 6th

• extend beyond thoracic wall.

- 1, 2, 7, 8, 9, 10, 11

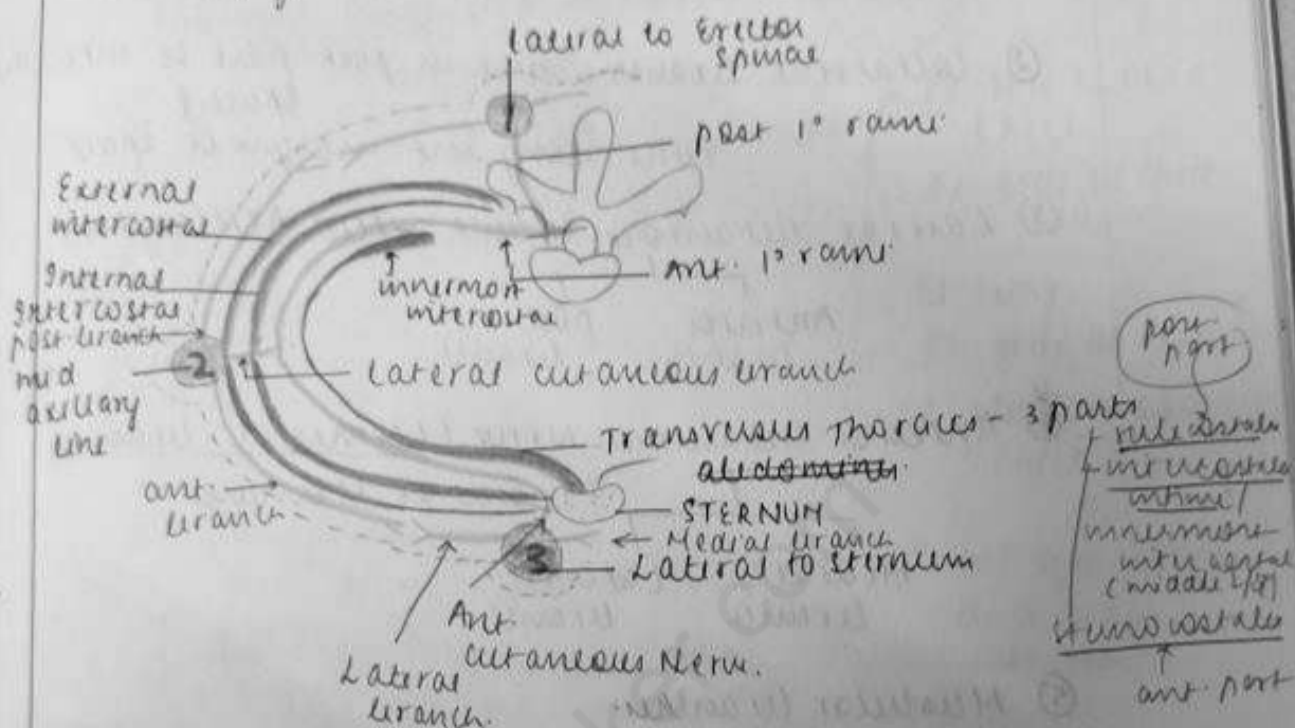
supply upper

Thoracoabdominal Nerve

leave thoracic wall & supply ant-abdominal wall

TYPICAL INTERCOSTAL NERVE

- ant. 1st rami of 2nd - 6th thoracic spinal Nerves.
- supply thoracic wall.



(i)

COURSE:

Each intercostal Nerve emerge through respective intervertebral foramen and enter into respective intercostal space.

- post. part of intercostal space
↓
ICN runs b/w pleura & post. intercostal membrane.

- costal groove - b/w internal intercostal & intercostalis intimi muscles.

- b/w internal intercostal & external intercostal muscles.

- Ant. end of intercostal space
↓
N. passes front of internal mammary Artery
↓
run forward & pierce internal intercostal muscle & ant. intercostal membrane

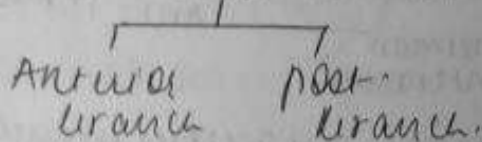
↓
Lateral cutaneous Nerve.

② BRANCHES OF TYPICAL INTERCOSTAL NERVE:

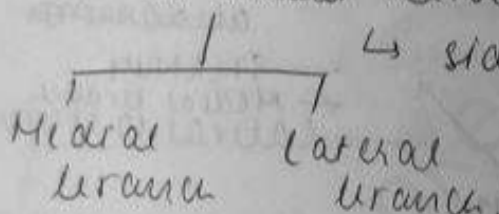
① White Ramus Communicans to Sympathetic Trunk

② Collateral branch - arise in post. part of intercostal space & runs along int. margin of space.

③ Lateral cutaneous branch - Mid Axillary line



④ Anterior cutaneous Nerve (terminal branch) → side of sternum



⑤ Muscular branches.

③ **+** Irritation of intercostal Nerve → severe pain referred to front / side of chest.

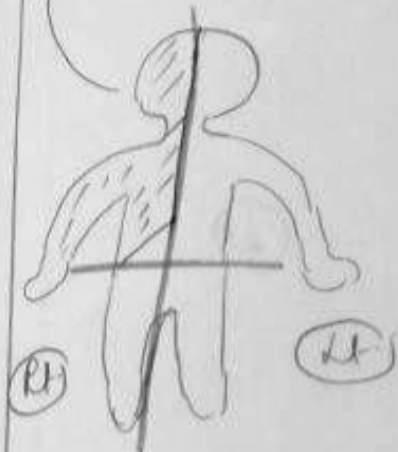
ROOT PAIN / GIRDLE PAIN

+ Pus from vertebral column track around thorax along the course of neurovascular bundle & may point at any of the sites of exit of branches of thoracic Nerve → post., lateral & ant. cutaneous branches of spinal Nerve.

LYMPHATIC SYSTEM

1. Rt. Lymphatic Duct - collect lymph from Rt. upper Quadrant of body.
2. Thoracic Duct. (Lt. Lymphatic Duct).

whole of body except
Rt. upper Quadrant
drained by.



- Rt. side of head & neck.
- Rt. side of chest wall.
- Rt. lung.
- Rt. side of heart.
- Rt. surface of liver.

THORACIC DUCT

① l = 18" long (45 cm).

② drain into junction of
Lt. subclavian vein &
Lt. Internal jugular vein.

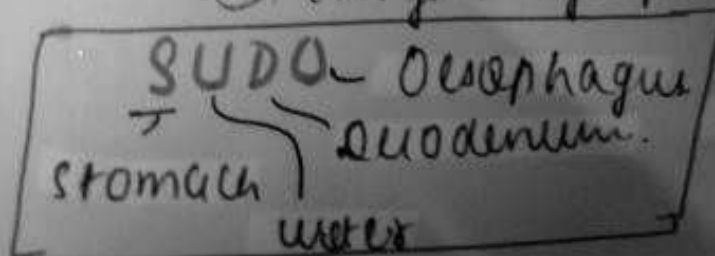
all lymphatic
duct drain
into ven.



③ beaded appearance (due to many valves)

④ source - cisterna chyli

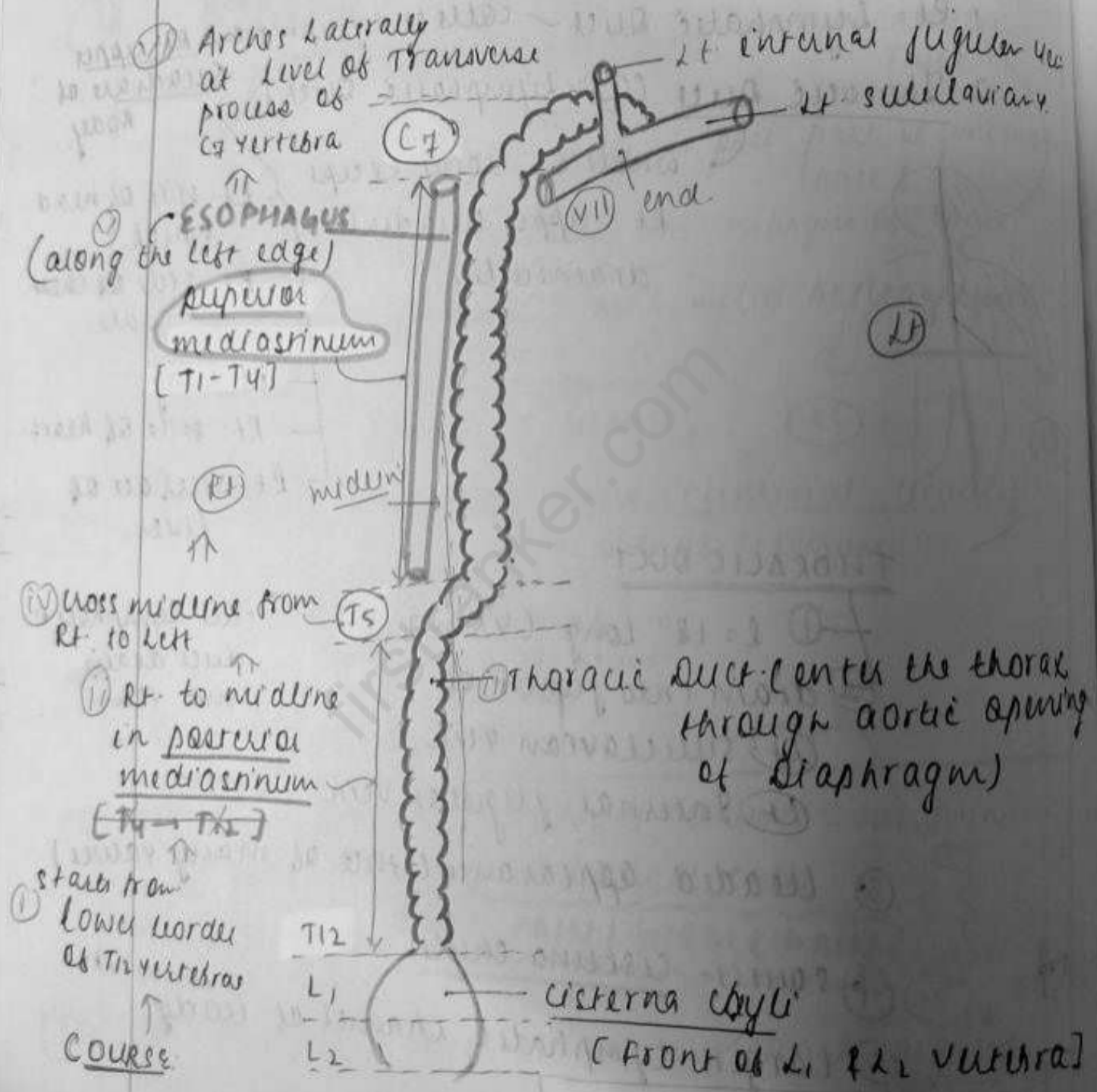
⑤ Largest lymphatic channel of body.



l = 25 cm / 10"

THORACIC DUCT

Ant view



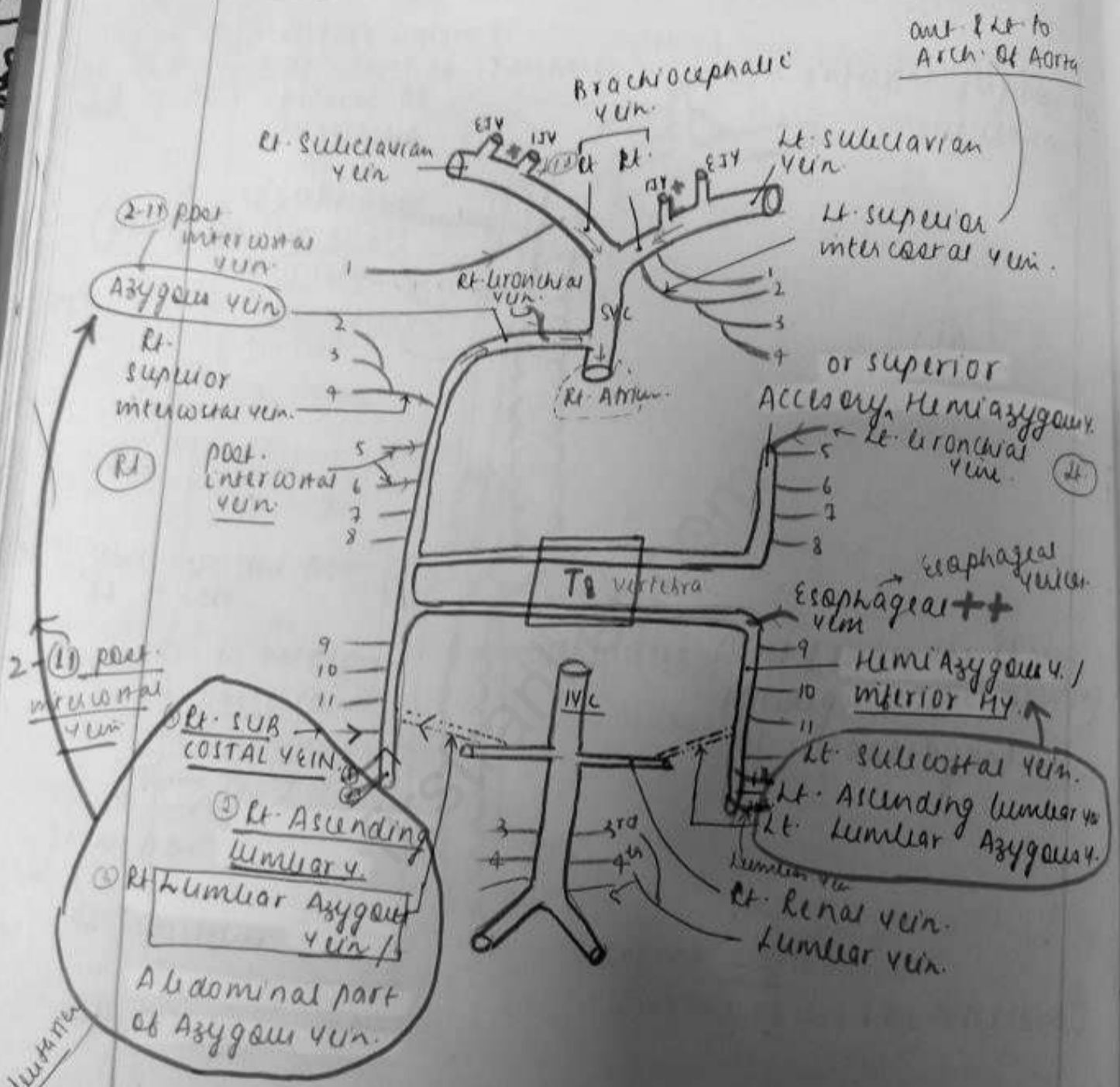
+ JUGULAR ANGLE

7/12/20
12 Feb.

www.FirstRanker.com
AY, HAY, ANY - 1st on post. wall.

www.FirstRanker.com

outlet to Arch. of Aorta



INTERCOSTAL SPACE [① on back
⑨ in front of chest.

12-13 lumbar vv. - drain into ascending lumbar vv.

AZYGOUS VEIN:-

- ① Drain venous blood from { Thoracic wall
Upper lumbar region }
form L2 & L2
- ② important connecting channel b/w $\begin{matrix} \text{SVC} \\ \text{IVC} \end{matrix}$
- ③ AZYGOUS $\rightarrow$ means unpaired.
- ④ occupy - ^{12th lumbar vein} upper part of posterior abdominal wall & post. mediastinum

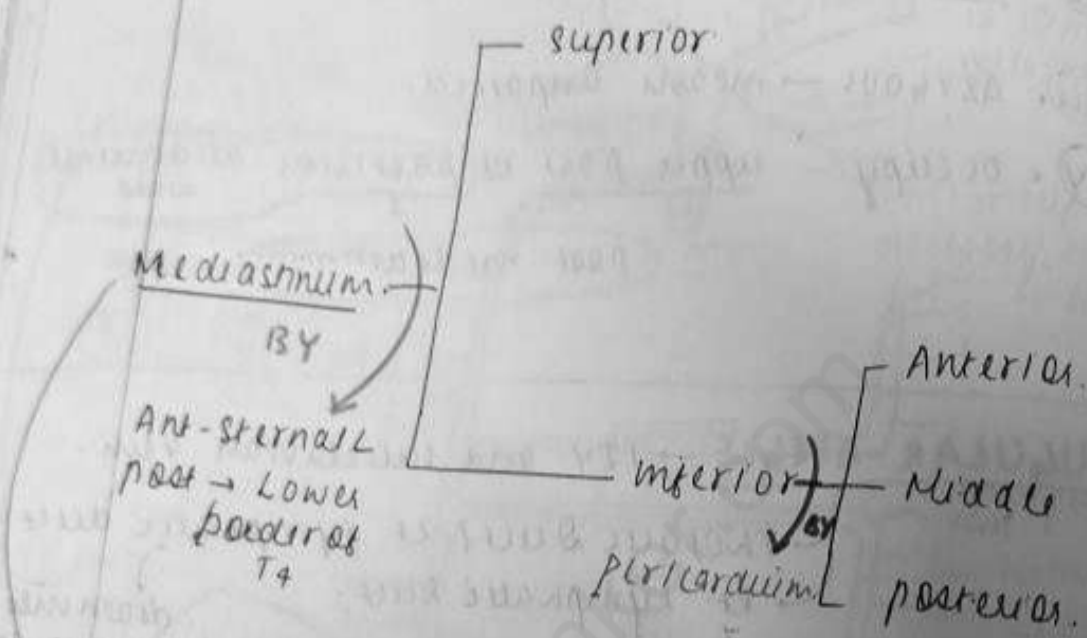
+ JUGULAR ANGLE $\rightarrow$ IJV and subclavian vein.

- Thoracic duct / Lt. lymphatic duct.
- Rt. lymphatic duct.

drain into Rt. Jugular Angle. drain into Lt. Jugular

MEDIASTINUM:

middle space b/w lungs.

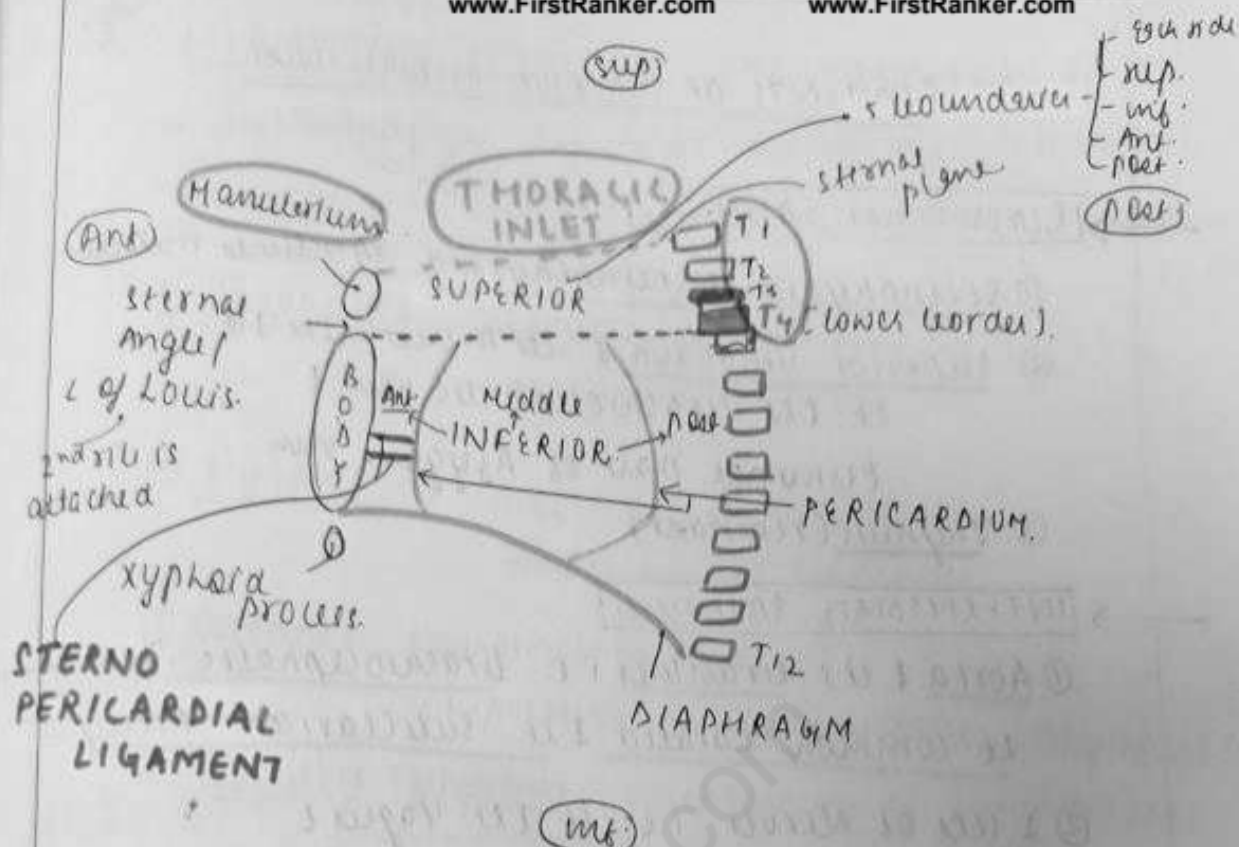


BOUNDARIES

- ① ANT.-STERNUM
- ② POST.-VERTEBRAL COLUMN. (T1→T12)
- ③ SUPERIOR - Thoracic Inlet.
- ④ INFERIOR - Diaphragm
- ⑤ ON EACH SIDE - Mediastinal Pleura.

(transmit all)

With sup & inf. Mediastinum.



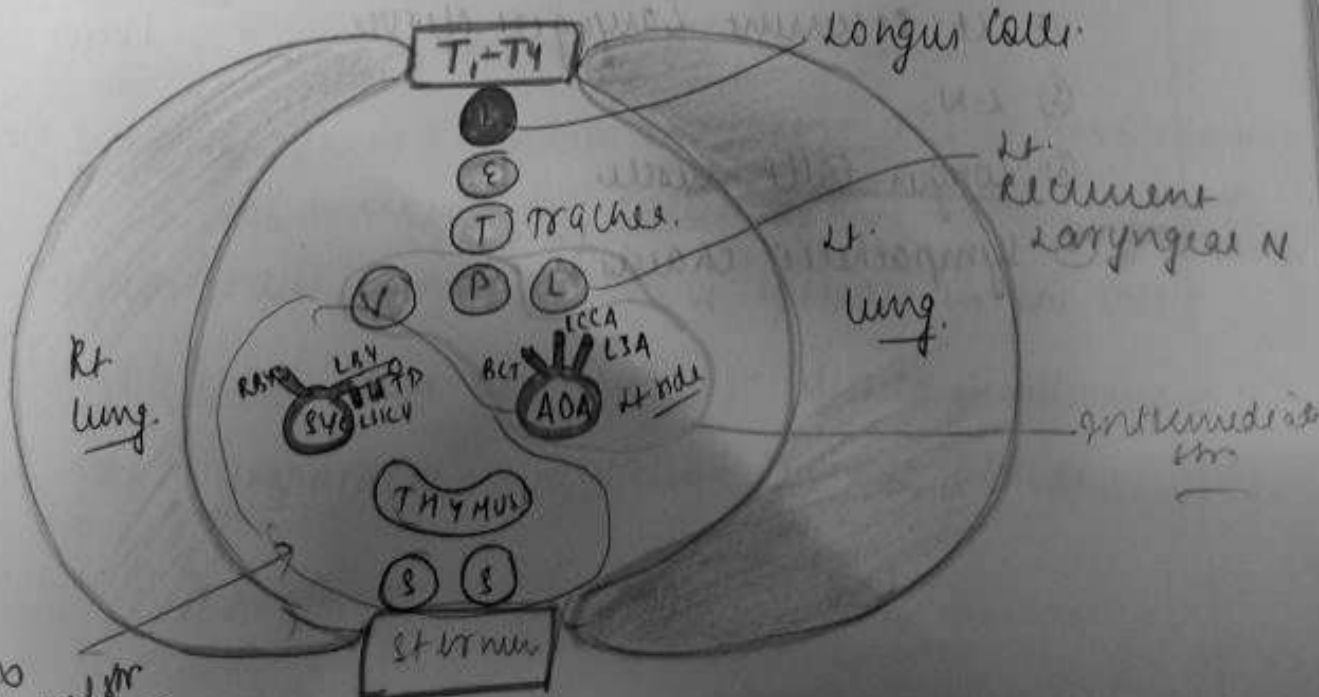
Boundaries.

Ant. Inferior Mediastinum.

- sup.
- inf.
- Ant.
- Post.
- On each side.

S/N.

contents of sup mediastinum



CONTENTS OF SUPERIOR MEDIASTINUM:

→ RETROSTERNAL STRUCTURES ^{suprachoid n.s.}

- ① sternohyoid & sternothyroid ~~structures~~ muscles.
- ② superior vena cava & its tributaries i.e.
Lt. & Rt. brachiocephalic vein &
terminal part of Azygos vein.
- ③ Thymus (remnant).

→ INTERMEDIATE STRUCTURES

- ① Aorta & its branches i.e. brachiocephalic trunk,
Lt. common carotid & Lt. subclavian artery.
- ② 2 sets of Nerves i.e. Lt. & Rt. Vagus &
Lt. & Rt. Phrenic.

→ PREVERTEBRAL STRUCTURES:

- ① Esophagus
- ② Trachea
- ③ Thoracic duct.
- ④ Lt. recurrent Laryngeal Nerve.
- ⑤ L.N.
- ⑥ Longus Colli muscle.
- ⑦ Sympathetic chain.

+ MEDIASTINAL SYNDROME: The compression of tr. in mediastinum by space occupying lesion i.e. enlarged L.V., produces clinical signs & symptoms.

① Dysphonia: difficulty in breathing;
compression of Trachea.

② Dysphagia: difficulty in swallowing;
compression of esophagus.

③ Dyspnea: hoarseness of voice;
compression of L. Recurrent Laryngeal Nerve.

* Horner's syndrome: compression of sympathetic chain.
↓
due to lesion of ascending cervical symp. chain.

Features:-

① partial ptosis (drooping of upper eyelid) - due to involvement of smooth part of LPS n/s.

② Miosis (constriction of pupil): involvement of dilatator pupillae n/s.

③ Enophthalmos (sunken eyeball): due to involvement of sunken eye Orbitalis n/s - which helps to maintain normal position of eyeball in the orbit.

④ Anhidrosis (loss of sweating): due to involvement of sympathetic innervation of sweat glands.

ESOPHAGUS

03/05/19

10" long (25 cm) muscular tube

connects Pharynx → Esophagus. stomach.

provides passage for movement of bolus of food & liquids during 3rd stage of deglutition

① Extension:-

lower border of cricoid cartilage /
Body of C6 vertebra

↓
cardiac orifice of stomach
(level of lower border of T1 vertebra).

② Constrictions / Narrowings - 4

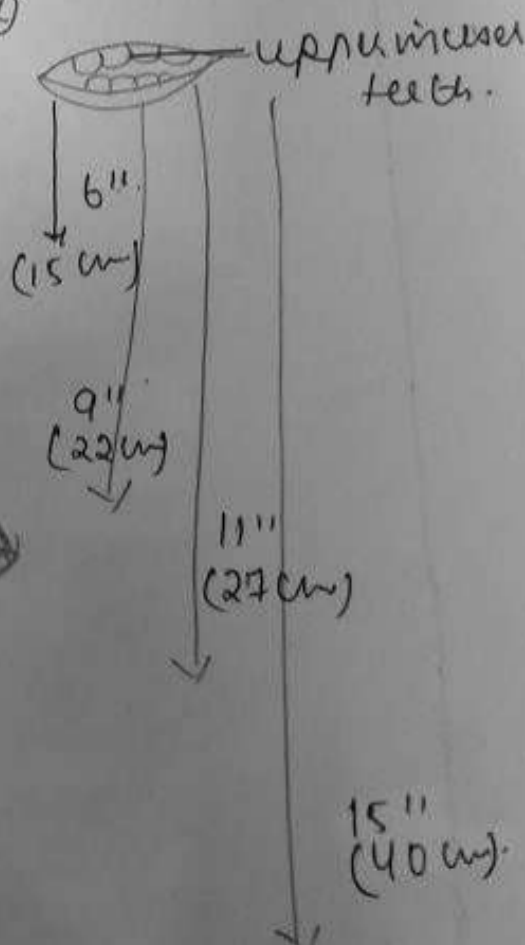
Along Narrowest part

① at its commencement
caused by cricopharyngeal
muscle → I.C.M.S.

ii) where it is
crossed by
aortic arch

iii) where it is
crossed by
Lt. bronchus

iv) where it
pierces the
diaphragm



Blood supply of Esophagus.

(iii)

i) Esophagus - Cervical part - int. Thyroid artery

ii) Thoracic part - Esophageal branch
of Thoracic aorta.
↳ visceral to

iii) abdominal part - esophageal branch
of L. gastric artery.
↳ for of Celiac Trunk.

DIAPHRAGM

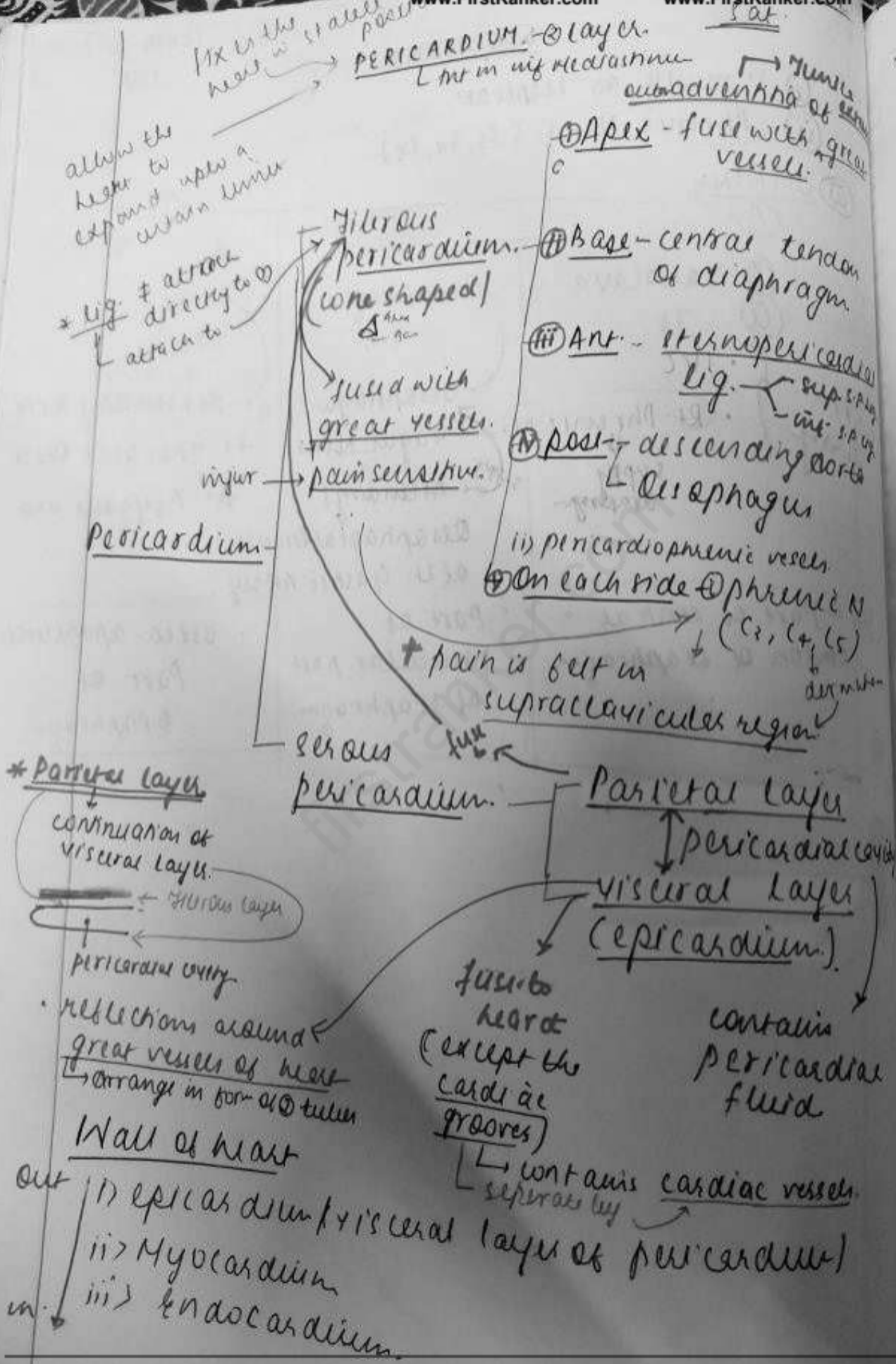
- (i) 1^o muscle of respiration
- (ii) Phrenic Nerve (C₃, C₄, C₅)

(iii) OPENING

(A)	O
V Vena cava	Oesophagus T10
(ii) T ₈ • IVC	Oesophagus Vagus Nerve
(iv) str pulv • <u>Rt. Phrenic N</u> ↓ supply diaphragm	supply Ascending / Oesophageal branch of Lt. Gastric Artery
(iii) → Part of central tendon of Diaphragm.	• Part of muscular part of Diaphragm.

08/05/2020
Sat

360



SEROUS PERICARDIUM.

Parietal layer.

Visceral layer:

reflections around
great vessels of heart.

arrange into form of
2 tubes

Arterial
tube

enclose around

[Aorta &
pulmonary
Trunk

at arterial end of
heart tube.

then
forms.

venous
tube.

enclose
around

[pulmonary
veins &

[SVC
IVC.

at venous end
of heart tube.

* Transverse sinus:- separates A. & veins.
formed in.

then

Oblique sinus formed

11/05/19

Transverse Sinus of Pericardium

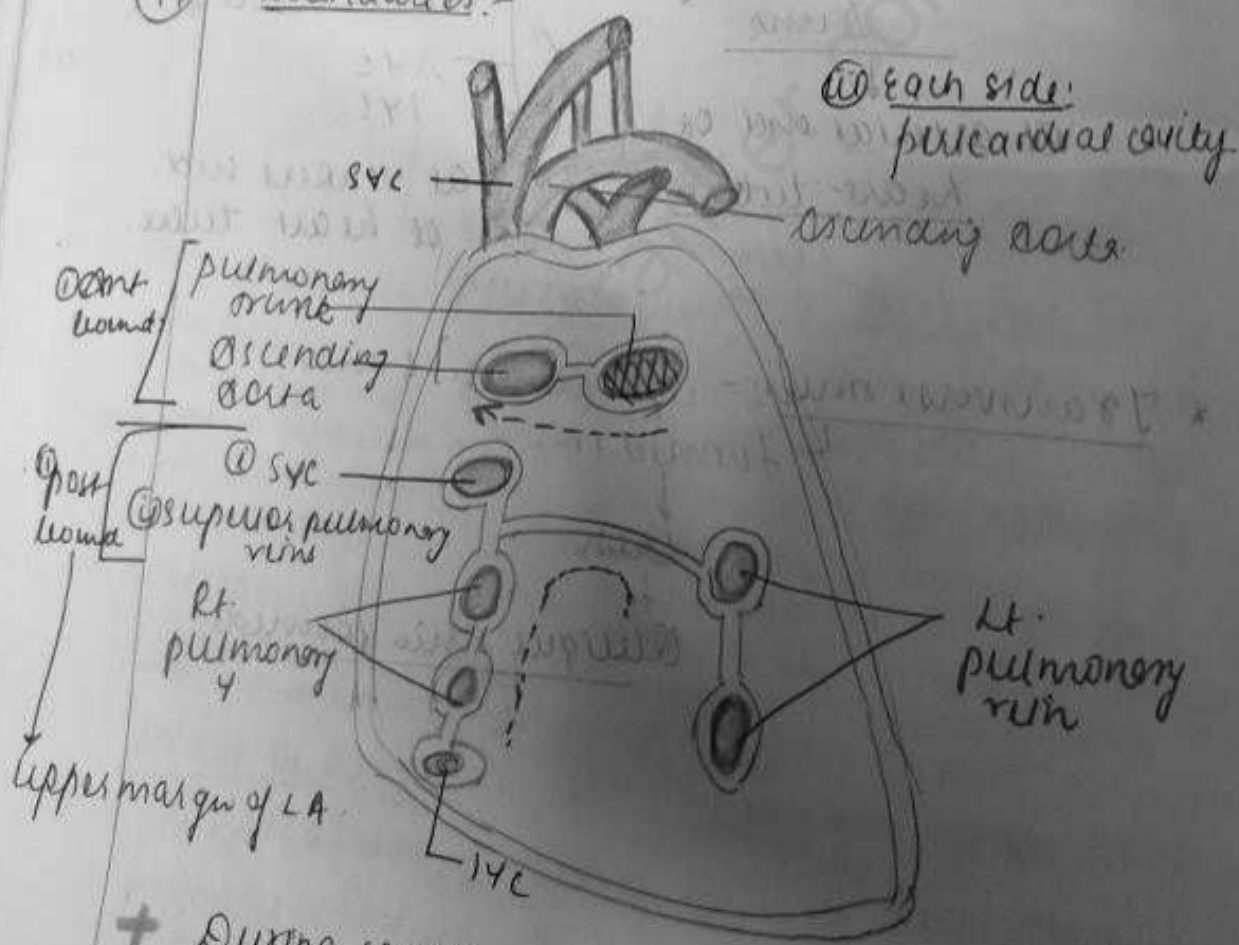
- ① In embryonic life, it is HZ vessel of venous end of pericardium b/w arterial & venous end of heart-tubes.
- ② develops due to degeneration of dorsal mesogastrium.
- ③ In adult life, it is not ~~the~~ behind
 - ascending aorta & pulmonary trunk (arterial end of heart-tubes)

• in front of SVC

superior pulmonary vein

venous end of heart tubes

Boundaries:-



+ During cardiac surgery → temporary ligature passed through transverse sinus → tubes of heart & lung machines inserted into great vessels of heart → ligature is tightened

Oblique sinus of Pericardium

- (i) narrow cul-de-sac of serous pericardium membrane
that behind Lt. Atrium.
- (ii) It is closed on all sides except inferiorly where
it communicates with the rest of pericardial
cavity.
- (iii) develops due to absorption of pulmonary veins into LA.
- (iv) It is formed by reflected part of parietal pericardium.

I. Boundaries:-

- (i) Ant:- visceral pericardium covering the post surface
of LA
- (ii) Post:- parietal pericardium lining the post surface
of fibrous pericardium
- (iii) Rt. side:- P.P. reflection along Rt. PV & IVC
- (iv) Lt. side:- P.P. reflection along with left PV
- (v) Superior:- P.P. reflection along upper margin of LA

II. FUNCTIONS:-

- (i) permits free pulsations of LA.
- (ii) suspends the heart in pericardial cavity.

PERICARDITIS:- inflammation of serous pericardium.

↳ pain is referred to Epigastrium.

Pericardial effusion:- collection of fluid in pericardial cavity.

16 June 2019

Fibrous skeleton of heart

(i) Lies in the plane b/w atria & ventricles.

(ii) Surrounds (a) valves - Aortic, pulmonary, bicuspid, tricuspid.
[Fibrous ring]

- (a) Fibrous Ring
- (i) (i) - Atrioventricular Ring (Bicuspid & Tricuspid valves)
 - (ii) (ii) - Aortic Ring
 - (iii) (iii) - Pulmonary Ring

Rings are interconnected by 3 structures.

(i) B/w Atrioventricular Ring & Aortic Ring - by Trigonum Fibrosum Anterum (TFA)

(ii) B/w Mitral Ring & Aortic Ring - by TFS
Trigonum Fibrosum Sinistrum.

(iii) B/w Pulmonary Ring & Aortic Ring - by Tendon of Infundibulum

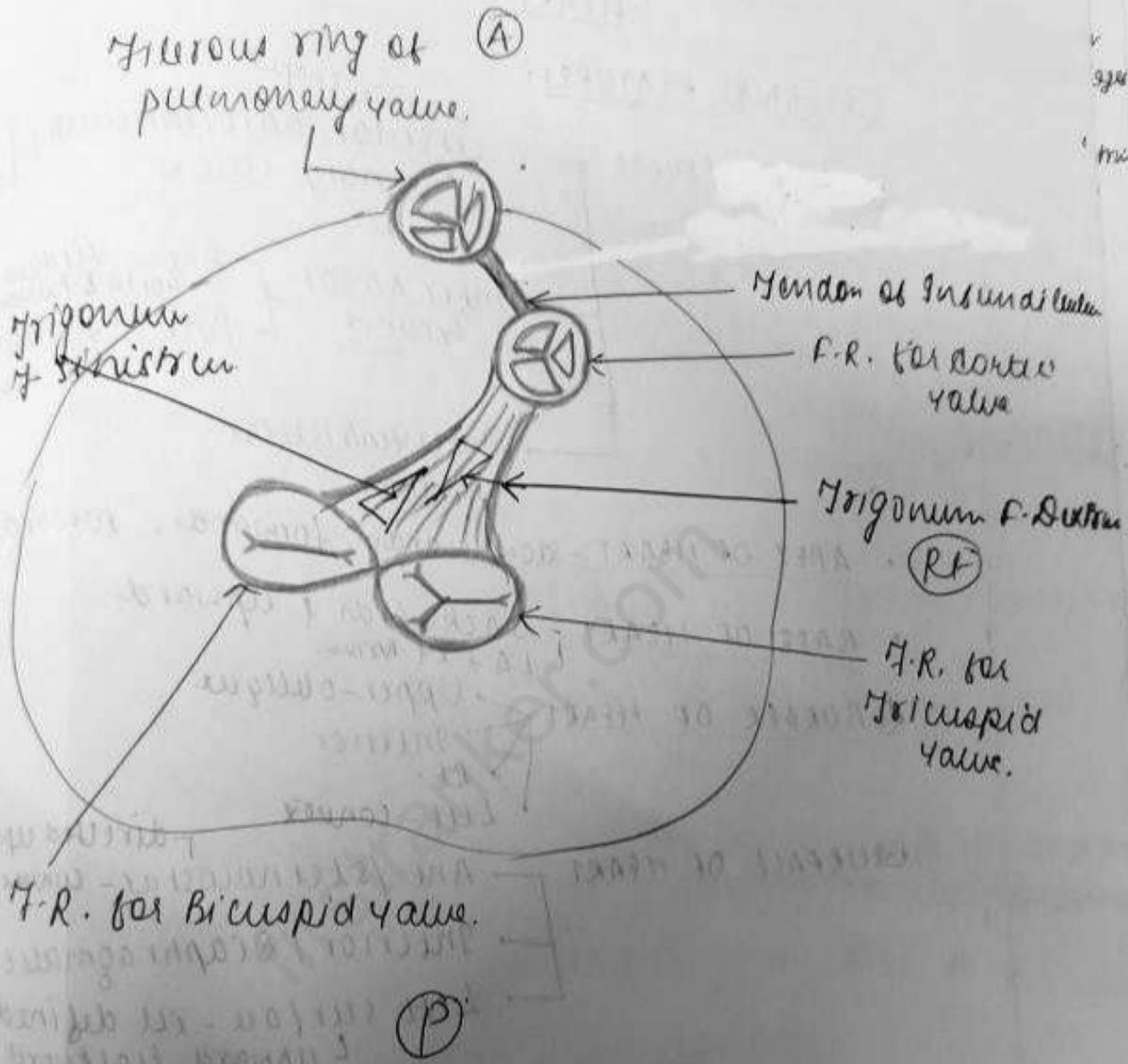
* Functions:-

(i) Central support of heart.

(ii) Provide attachment to - Bicuspid & Tricuspid valves directly
- Cardiac plexus of atria & ventricles
- membranous part of interventricular septum

(iii) Acts as electric insulator - it blocks the direct spread of electric impulses from atria → ventricles.
[Impulses go only through Bundle of His]

(iv) prevents over dilation of valve opening



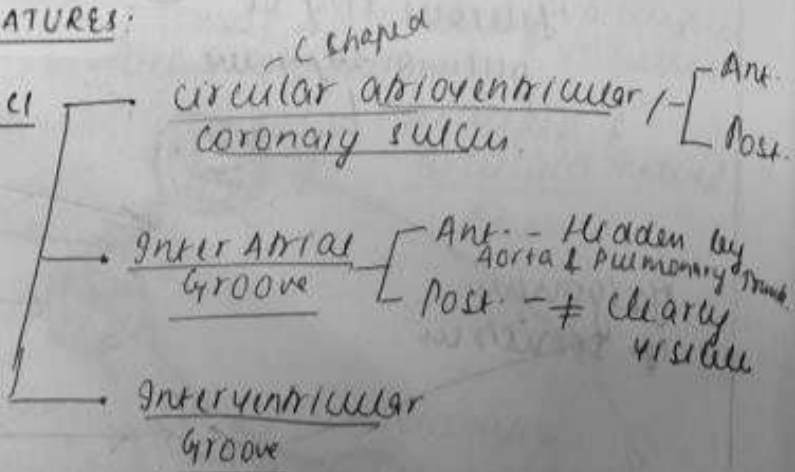
+ Regurgitation: bicuspid & bicuspid valve
 does not close directly
 → outflow of blood in heart.
 • Leak in heart valve - Incompetence.

16 Feb 2019
Sat

HEART

EXTERNAL FEATURES:

① GROOVE / SULCI



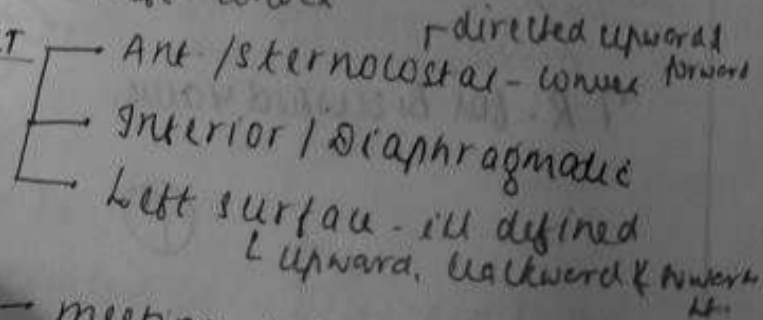
②. APEX OF HEART - downwards, forwards, towards left.

③. BASE OF HEART - backwards & upward.
LA + Rt. Atrium

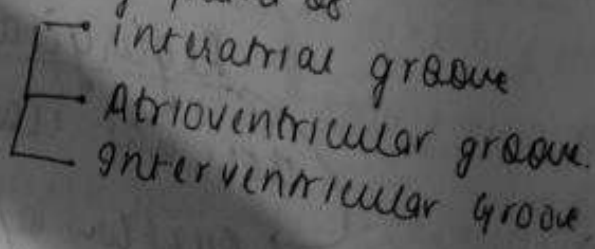
④. BORDER OF HEART

- Upper-oblique
- Interior
- Rt.
- Left-convex

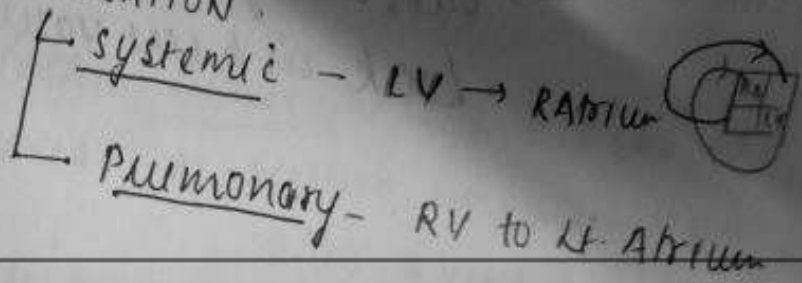
⑤. SURFACE OF HEART



⑥. CRUX OF HEART - meeting point of



⑦. TYPES OF CIRCULATION

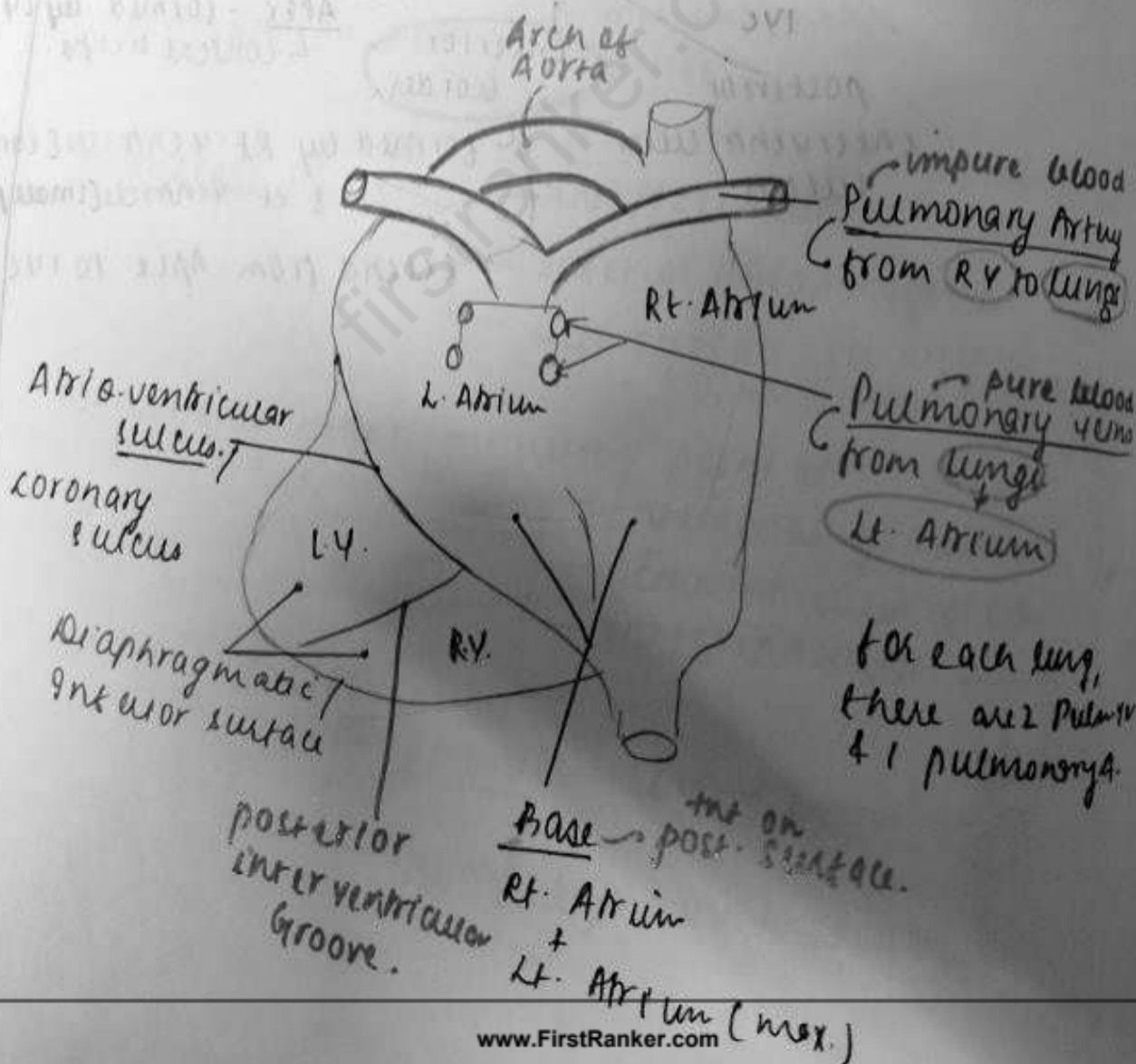




HEART

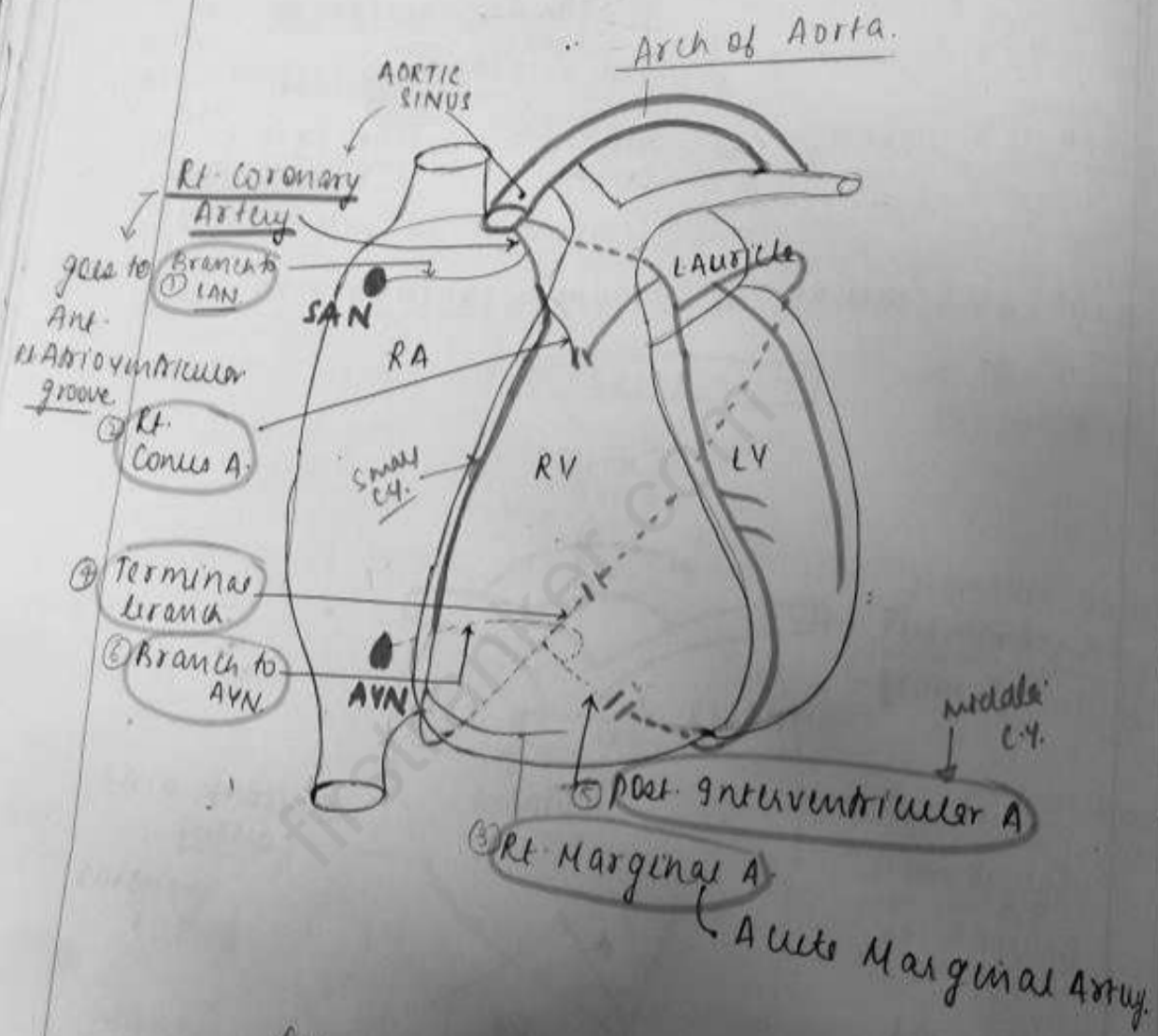
- Same Line
- SUPERIOR BORDER — mainly Lt. Atrium + Rt. Atrium
 - RT. BORDER — Rt. Atrium
 - INFERIOR BORDER — mainly Rt. Ventricle + LV
 - LEFT BORDER — mainly Left Ventricle + Lt. Atrium
 - APEX — Lt. Ventricle
 - BASE OF HEART — mainly Lt. Atrium + Rt. Atrium

POSTERIOR VIEW

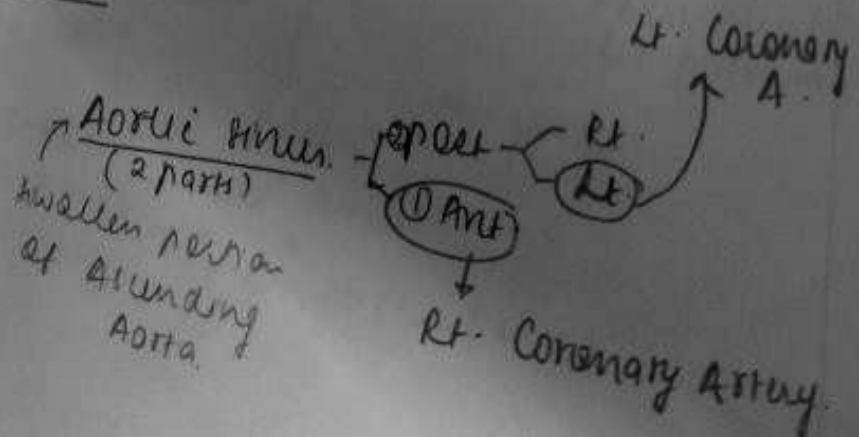


Tues
12 Feb 2013

HEART BLOOD SUPPLY:-

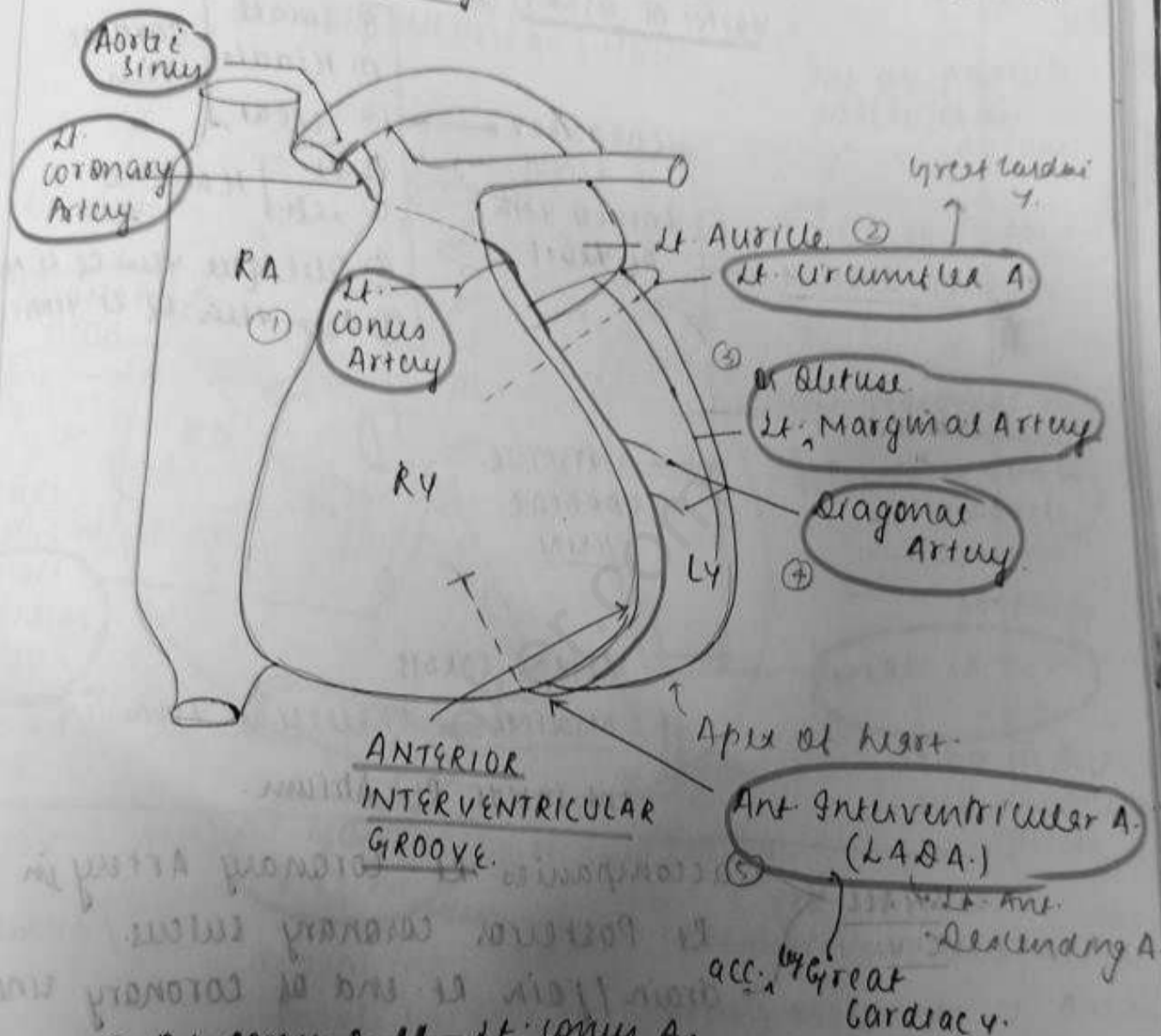


Ant. view.



Lt. Coronary Artery:

2. Extent of ven from Ant. Ventr.



① Rt. Conus A. — Lt. Conus A.

② Circumflex — Ramus Branch of Rt. coronary

③ Ant. Interventricular Branch — posterior Interventricular A.

Lt. Lt. coronary A.

VEINS OF HEART

Tributaries



• SMALL C.V. accompanies Rt. Coronary Artery in Rt. Posterior coronary sulcus / AV sulcus. drain/join Rt. end of coronary sinus.

• MIDDLE C.V. accompanies post. interventricular A. & join middle part of coronary sinus

• GREAT C.V. accompanies Ant. interventricular A. & circumflex A. join Lt. end of coronary sinus.

Int in Lt. Posterior
coronary sulcus / AV sulcus

the on posterior
surface of U.
Atrium.

⑥ Oblique vein of Lt. Atrium

(24)

⑤ Lt. Marginal vein

④ Posterior vein of Lt. Ventricle.

26. Part of

③ Great Cardiac vein

- nur in Ant-
intervenirende
sollen

④ Rt. Marginal
+ 4 in.

② Middle cardiac vein. L +

Middle part
of CN

drains into

vein. Lnt in post.
interventricular sulcus.

Small cardiac vein / directly drain into Rt. Atrium

RT. MARGINAL V. { accompanies Rt. Marginal A.
drain into { small cardiac vein or
 { directly into Rt. Atrium.

- Lt. MARGINAL Y. - accompany Lt. Marginal A.

- POST. VEIN OF LT. VENTRICLE: int on diaphragmatic surface of lt. ventricle.

2018

RT. ATRIUM.

19 Feb. 2019
Thur.

- (i) rt. upper chamber of heart.
- (ii) receives venous blood from all parts of body through - SVC, - IVC & - coronary sinus.
- (iii) pumps blood into Rt. ventricle.
- (iv) Rt. border presents shallow vertical groove, which extends from an L made b/w SVC & rt. ^{margine} border of rt. Atrium Auricle → rt. border of IVC. It is produced by muscular ridge inside called crista terminalis.

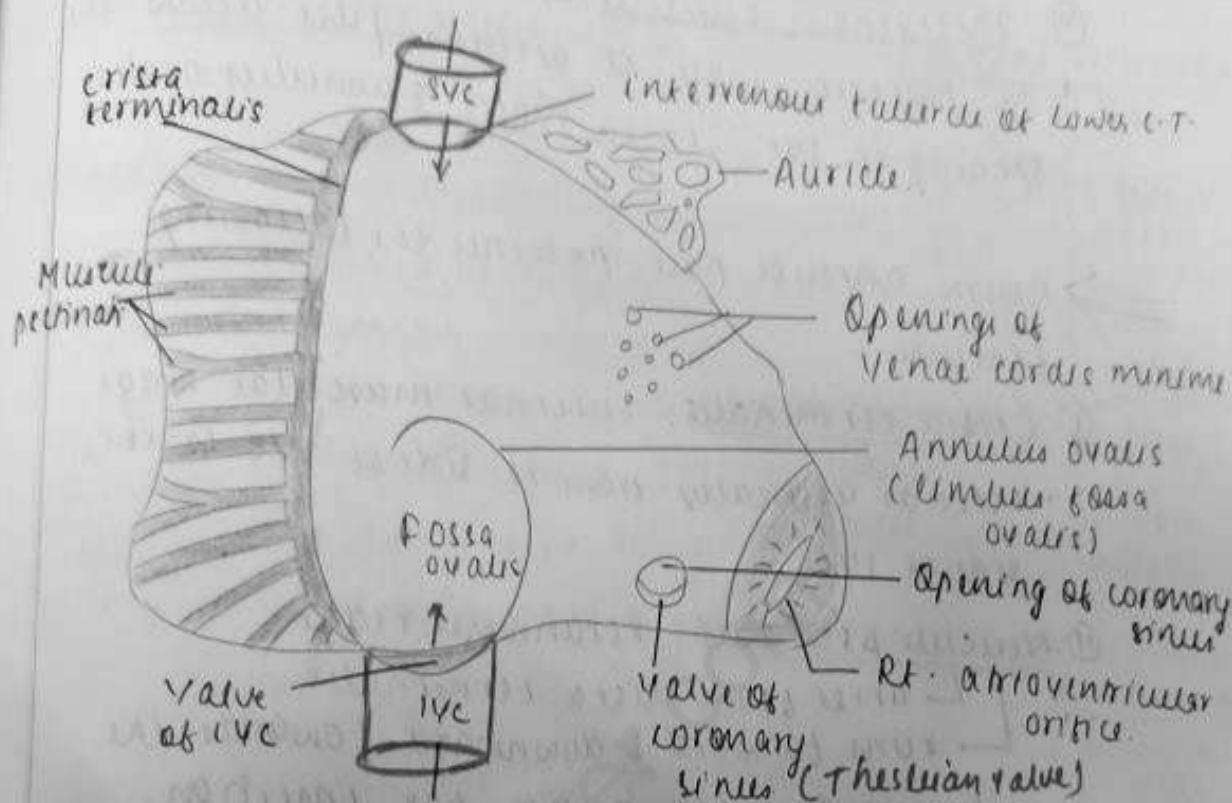
DEVELOPEMENT

Smooth Post. Part. / SINUS VENARUM

Rough Anterior Part / PECTINATE PART

- develops from rt. horn of sinus venosus.
- develops from primitive atrial chamber.

INTERIOR OF RT-ATRIUM:



→ Interior of Rt. Atrium is divided into
 { smooth posterior part &
 { rough anterior part.

→ Smooth posterior part presents following features.

- (i) Opening of SVC at upper end.
- (ii) Opening of IVC at lower end. It is guarded by Eustachian valve.
- (iii) Opening of coronary sinus b/w opening of IVC & Rt AV orifice. It is guarded by valve of coronary sinus. Thebesian valve.
- (iv) Foramina venarum minimarum (minute opening of vena cordis minime, many small openings in wall of all chambers of heart).

⑦ Interventricular tubercle (of Lower) : small projection on posterior wall of atrium just below the opening of SVC. Fossa ovalis & annulus ovalis.

⇒ Rough anterior part presents the following features:-

① Crista terminalis: internal muscular ridge
 • extends vertically from rt. side of SVC to rt. side of IVC.

② Musculi pectinati: transverse ridge
 [arise from crista terminalis
 [runs forward & downward towards the atrioventricular orifice for insertion.

Thoracic aorta. BRANCHES

04/05/19

Visceral branches - 7 br

i) pericardial branch

to post. surface of pericardium.

ii) Mediastinal branch:

to lymph nodes and areolar tissue of post. mediastinum.

iii) 4-5 left bronchial artery - upper & lower
supply left lung

direct br of Thoracic aorta

esophagus

iv) esophageal branch

to lower 1/3rd of esophagus

Parietal branches

3 br

i) post. intercostal
1 on each side
(1st & 2nd br work)

3-11

ii) subcostal artery

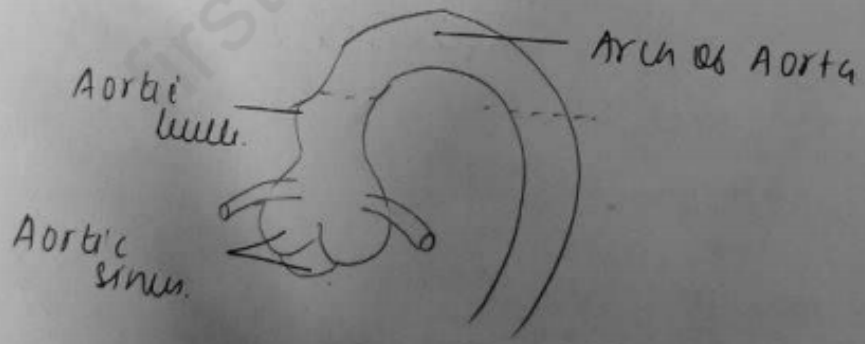
on each side

iii) superior phrenic
on each side

iv) inferior phrenic
or of abdominal aorta.

ARCH OF AORTA

- (i) continuation of ascending aorta behind sternum L.
- (ii) lies in superior mediastinum.
- (iii) begins & terminates at same level. (sternal L.)
- (iv) begins anteriorly, terminates posteriorly.
- (v) ascending aorta runs upward, backwards & to left side of bifurcation of Trachea.
 - ↓
 - goes downwards behind left branches;
 - arches over root of Lt. lung.
 - ↓
 - end at sternal L.
 - (lower border of T₄)
 - ↓
 - continuous with descending Aorta.



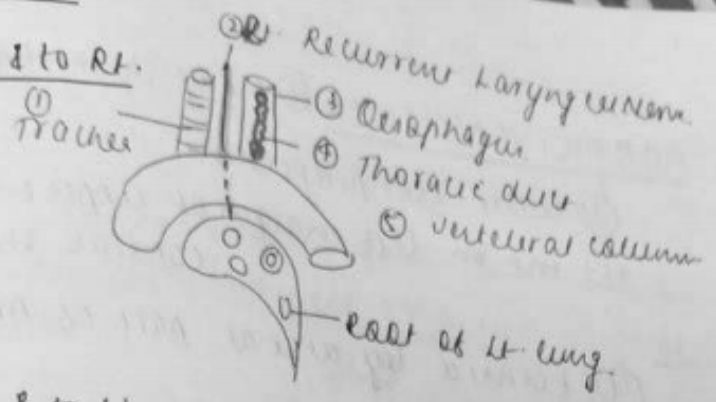
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BRANCHES

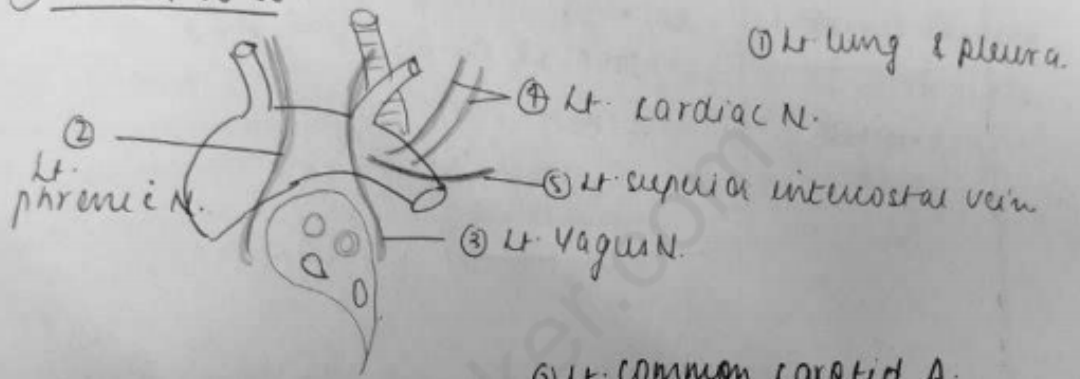
- (i) Rt. Brachiocephalic Trunk.
- (ii) Lt. common carotid A.
- (iii) Lt. subclavian A.

RELATIONS:

① POST. & TO RT.

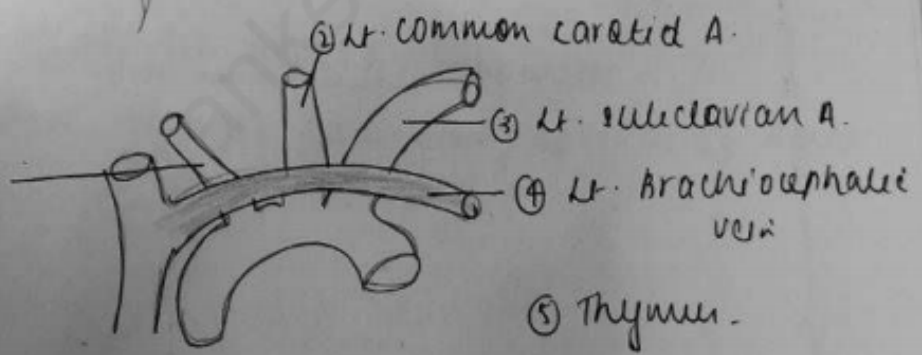


② ANT. & TO LT.



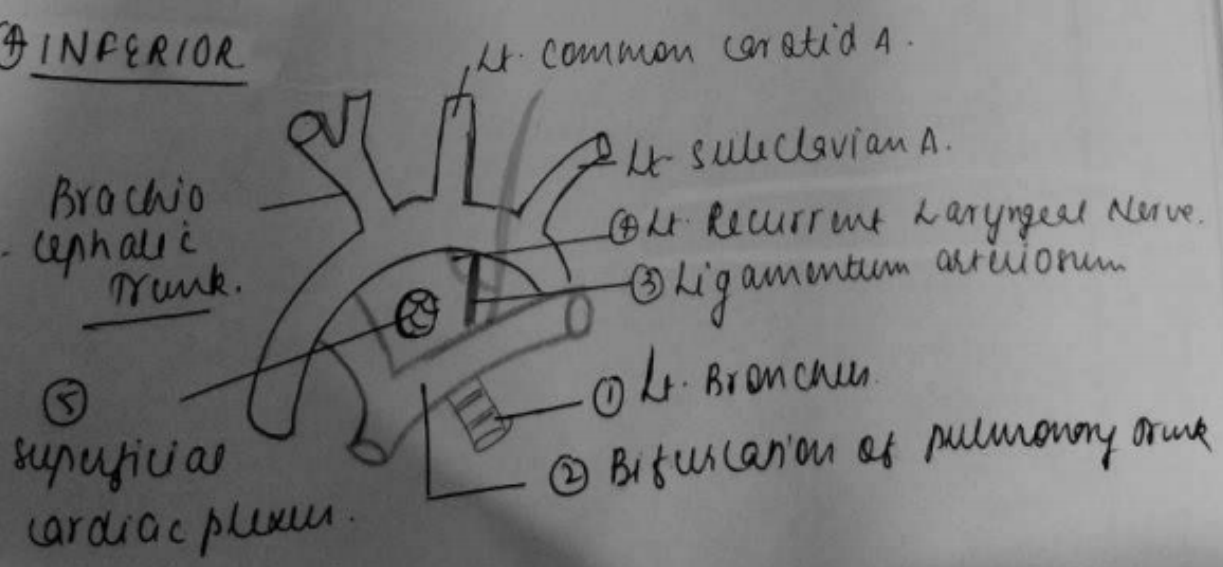
③ SUPERIOR

① Brachio-
cephalic
trunk



④ INFERIOR

Brachio-
cephalic
trunk.



+ AORTIC KNUCKLE

- ① X-Ray chest
- ② hump like projection.
- ③ int on left margin of upper cardiac
- ④ formed by distal part of

DEVELOPEMENT:

- Arch of Aorta develops at the end of 4th
- develops from following 3 sources

① Left Horn of Aortic sinus

- forms part of Arch of Aorta b/w ~~Left C.C.A &~~ Brachiocephalic trunk & Left C.C.A.

② Left 4th Aortic Arch

- forms part of Arch of Aorta b/w Left C.C.A & ductus Arteriosus

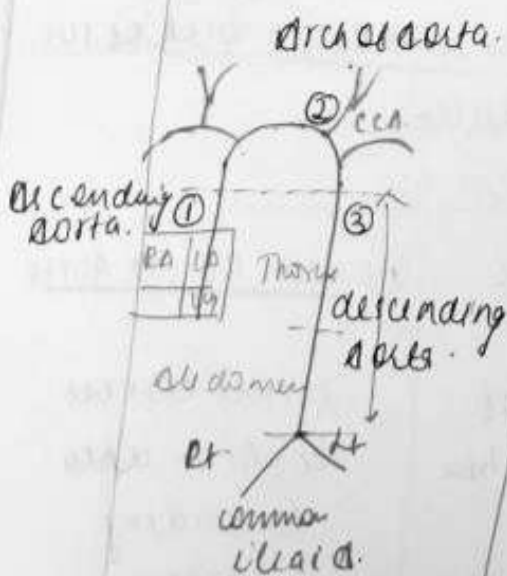
③ Left 7th Aortic Arch

*** COARCTATION OF AORTA:** congenital stenosis / narrowing of

16 June 2019

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Aorta.

① Ascending aorta. Rt.
Lt. coronary artery
happy heart

② Arch of aorta - ③ br - Rt. Brachiocephalic
Trunk - 2 br - Rt. CCA
Lt. CCA - heart
ECCA
Lt. subclavian a. head
neck
upper limb

③ Descending aorta - ③ parts.

Thoracic part - parietal branch
visceral branch

Abdominal part - ③ branches - ④ parts

Terminal part - Rt. & Lt.
common iliac artery
Extremities

① Coronary sinus - dilatation

related to coronary vein

Heart venous drainage collection of ven

② Carotid sinus - dilatation at the base of ICA

related to ICA

Baroreceptor

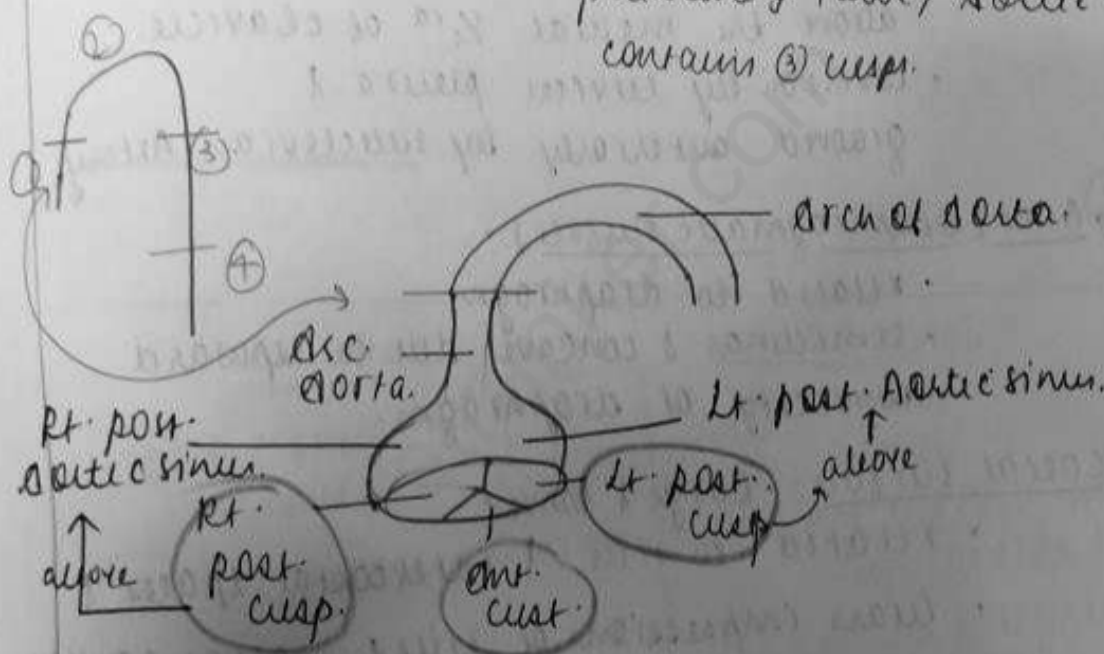
not just superior to bifurcation of CCA - ICA, ECA

③ Aortic sinus - heart arterial supply

related to aorta

heart arterial supply

pulmonary valve / Aortic valve contains 3 cusps



• Aortic sinus - dilatation of ascending aorta

post - Rt. Lt. - Lt. coronary artery originates

Ant aortic sinus - above ant cusp

Rt. coronary artery originates

participate in blood supply of heart

13 Feb.
Wed.

LUNGS.

4/1/19

• conical shape.

• Parts -

(i) Apex

(ii) Base.

(iii) 2 surfaces - costal & medial.

(iv) 3 borders - Ant, post & inf.
lingule.

(i) Apex -

blunt.

projects into root of neck about 2.5 cm above the medial $\frac{1}{3}$ rd of clavicle.

• covered by cervical pleura &

grooved anteriorly by subclavian Artery.

(ii) Base (diaphragmatic surface):

• related to diaphragm.

• semilunar & concave due to upward convexity of diaphragm.

(iii) Costal surface: • large & convex.

• related to ribs & intercostal spaces &

• bears impressions of ribs & costal cartilage.

(iv) Medial surface: contains hilum of lungs.

↓
divided into 2 parts:

Mediastinal surface

Vertebral surface

related to mediastinum

related to vertebral column.

• Anterior border:

thin & shorter than post. border

separates mediastinal & costal surfaces.

→ Rt. lung - straight

→ Lt. lung - wide cardiac notch

Occupied by heart &

pericardium.

Posterior border.

- thick & ill defined
- separates vertebral & costal surfaces.

Inferior border.

- semilunar.
- separates the base from costal & medial surfaces.

RT LUNG

- (i) 2 fissure
3 lobes
- (ii) Ant border - straight.
- (iii) larger & heavier.
~700g.
- shorter & wider.

LT LUNG

- (i) 1 fissure
2 lobes.
- (ii) Ant border: interrupted by cardiac notch.
- (iii) smaller & lighter.
~600g.
- longer & narrower.

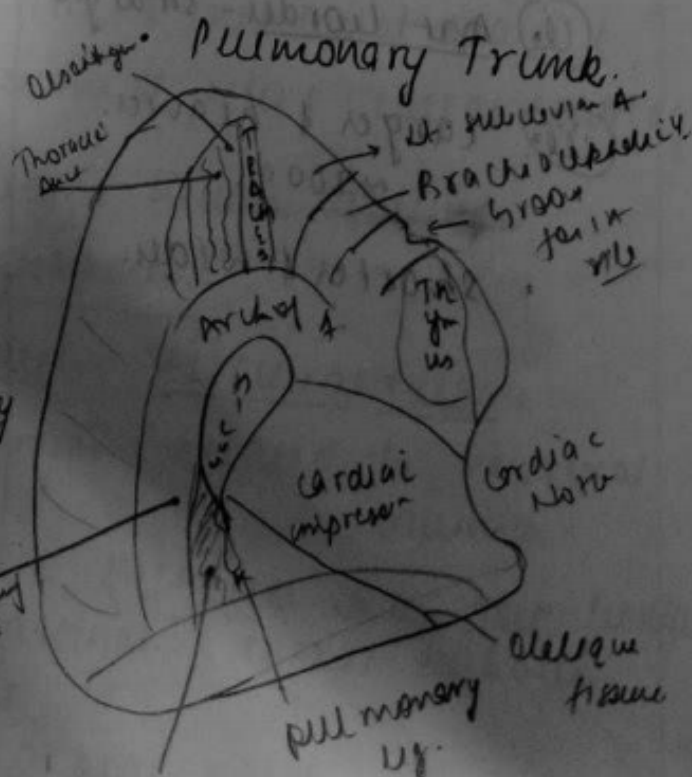
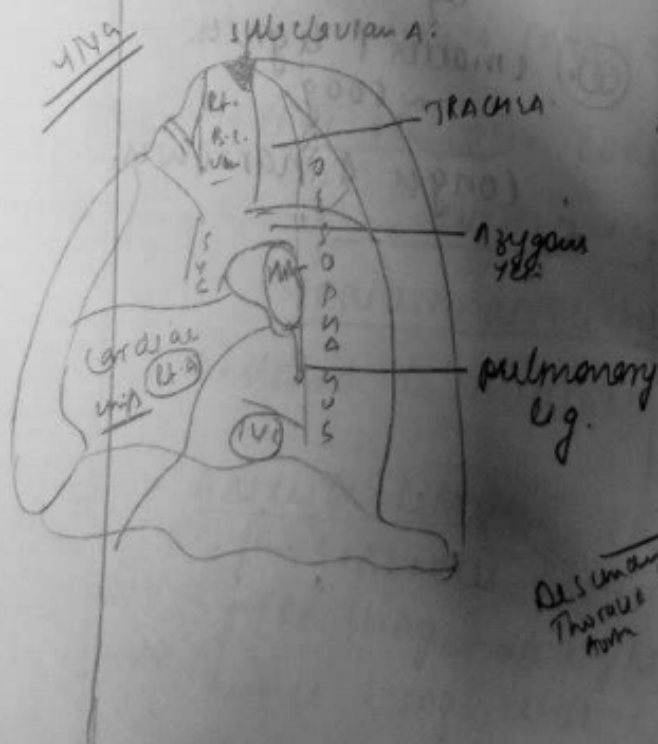
→ Structures Related to mediastinal surface of

Rt. Lung.

- ①. Rt. Atrium
- ②. SVC
- ③. Arch of Azygos vein
- ④. Esophagus
- ⑤. Rt. Vagus N.
- ⑥. Trachea
- ⑦. IVC

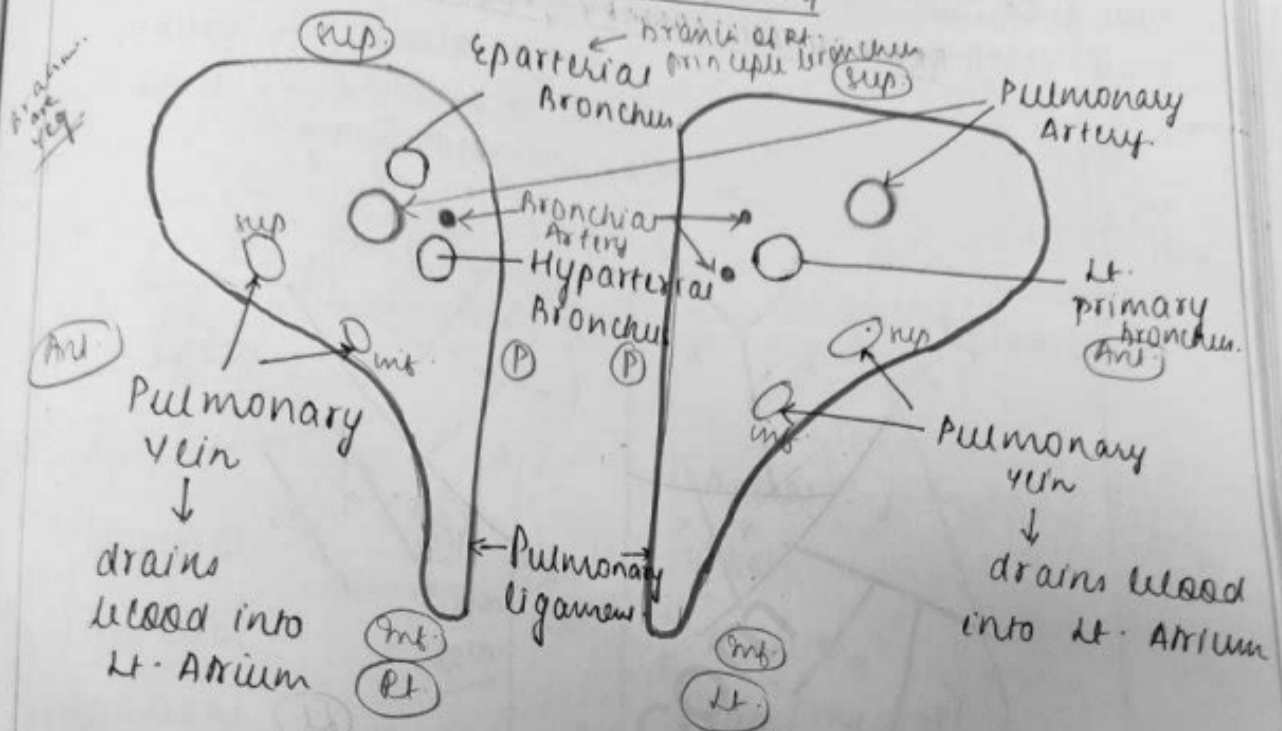
Lt. Lung.

- Lt. Ventricle
- Lt. common carotid & Lt. subclavian Arteries
- Arch of Aorta
- Esophagus, Thoracic Duct, Descending Thoracic Aorta
- Lt. Vagus N. & Lt. Recurrent Laryngeal N.



STRUCTURE IN ROOT OF RT. & LT. LUNG

Wed.
13 FEB. 2018



→ Hilum of lung - depressed base Area on mediastinal surface of lungs through which str. enter & leave the lungs.

→ The str. entering & leaving the hilum together form the root of the lung.

→ Arrangement of str.

(i) Ant. → Post. (same in both)

V → A → B

Superior P.V → Pulmonary A. → Bronchus.

Above

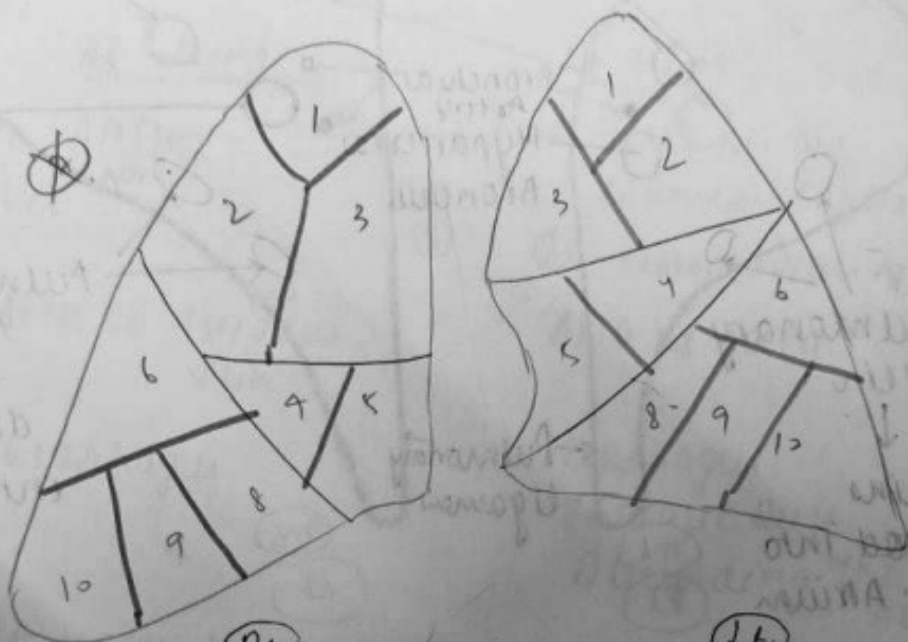
(ii) downwards.

Rt.
Eparterial Bronchus
↓
P.A.
↓
Hyparterial Bronchus
↓
Anterior pulmonary vein.
↓
Inf. Pulmonary Vein.

Lt.
Pulmonary Artery.
↓
Bronchus
↓

www.FirstRanker.com

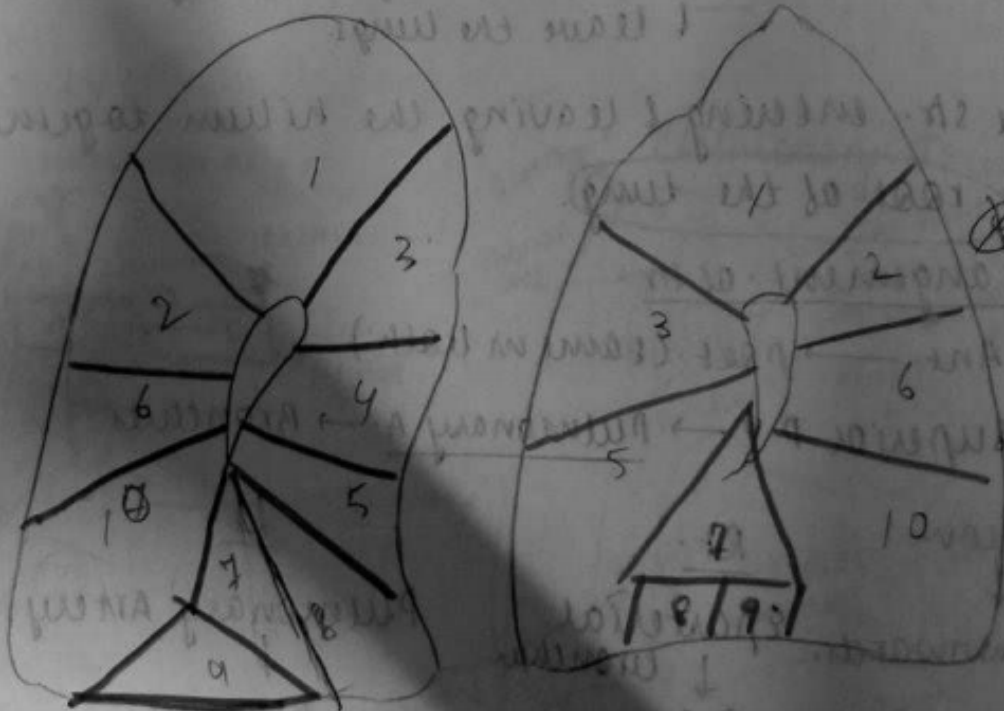
BRONCHOPULMONARY SEGMENT:



(Rt) LAURAL ASPECT

(Lt)

Fig: COSTAL ASPECT

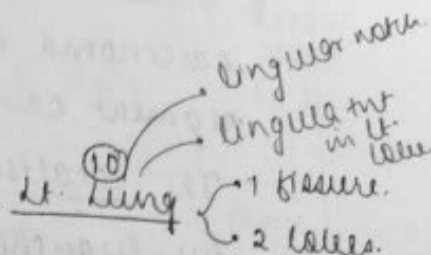
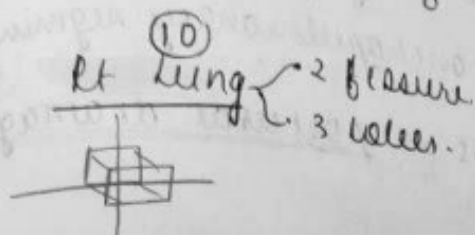


Medial Aspect

BROCHOPULMONARY SEGMENT

- str. & functional unit of lung parenchyma.

Kidney → vascular segment
Liver → anatomical lobes
 → physiological lobe



- ① Apical
② Posterior
③ Anterior
④ Lateral
⑤ Middle
⑥ Superior
⑦ Medial Basal
⑧ Ant. Basal
⑨ Lateral Basal
⑩ Posterior Basal

APAL

- ① Upper lobe
 Upper division
 ① Apical
 ② Post.
 ③ Anterior
 ④ Sup. Lingular
 ⑤ Inf. Lingular
 Lower division

- ② Lower lobe
 Superior
 Medial Basal
 Ant. Basal
 Lateral Basal
 Post. Basal

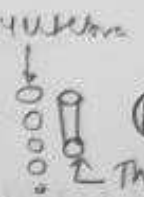
- Bronchopulmonary segment - pyramidal shape.
- Apex - point towards hilum.
- Base - towards the surface of lung.
- supplied by 3 bronchi.

- + SEGMENTAL RESECTION : If carcinoma is confined to one segment can be removed surgically.
- The localisation of bronchopulmonary by bronchoscopy helps in posture of lungs.

16 June 2019.

Blood supply of Lungs.

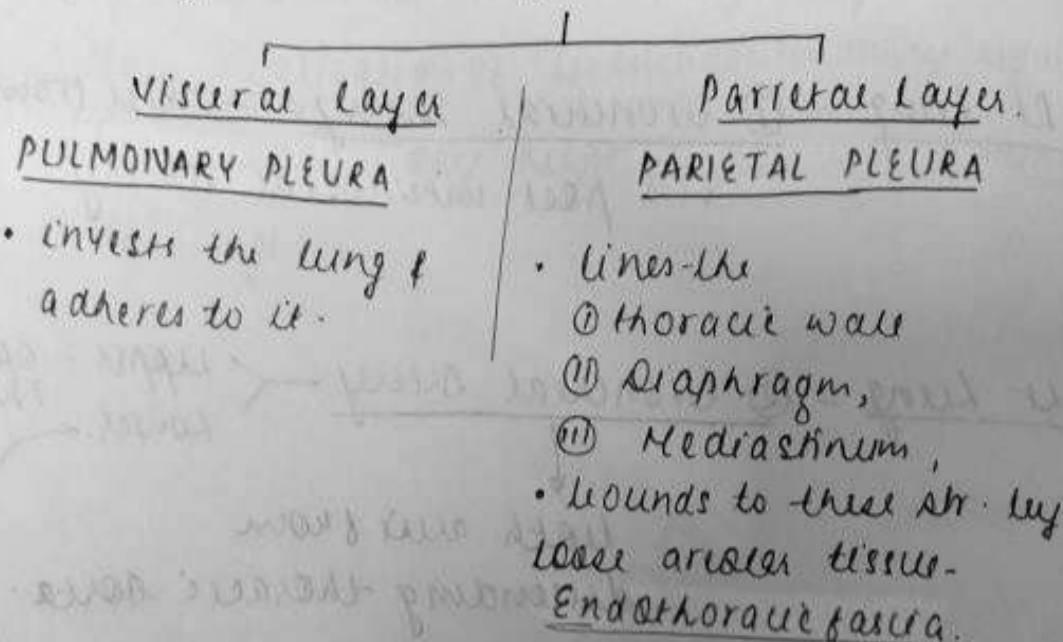
(Rt)



① Rt. Lung - ① bronchial artery ← arises from
3rd post. intercostal artery

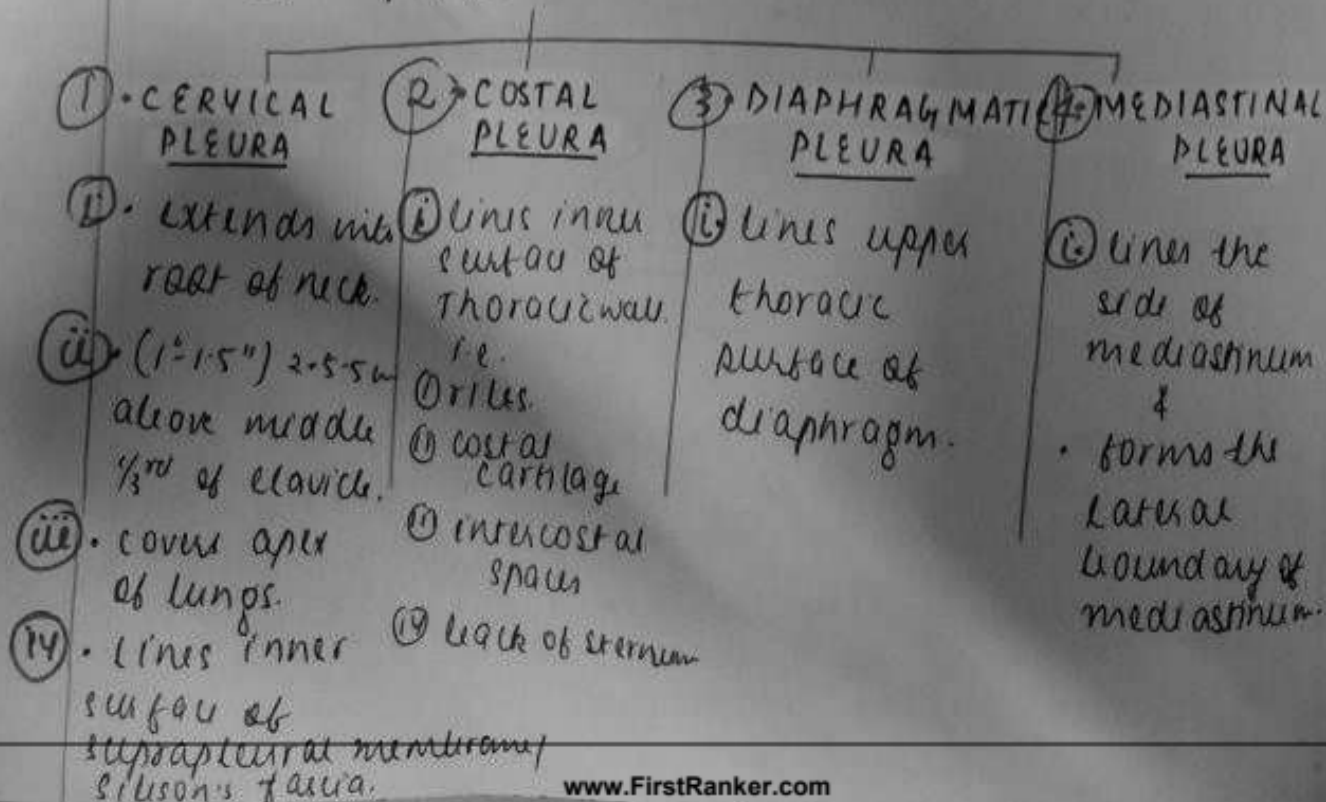
② Lt. Lung - ② bronchial artery ← upper
lower
↓
both arise from
descending thoracic aorta

- (i) serous membrane in the form of closed sac.
- (ii) invaginated by lungs from its medial side.

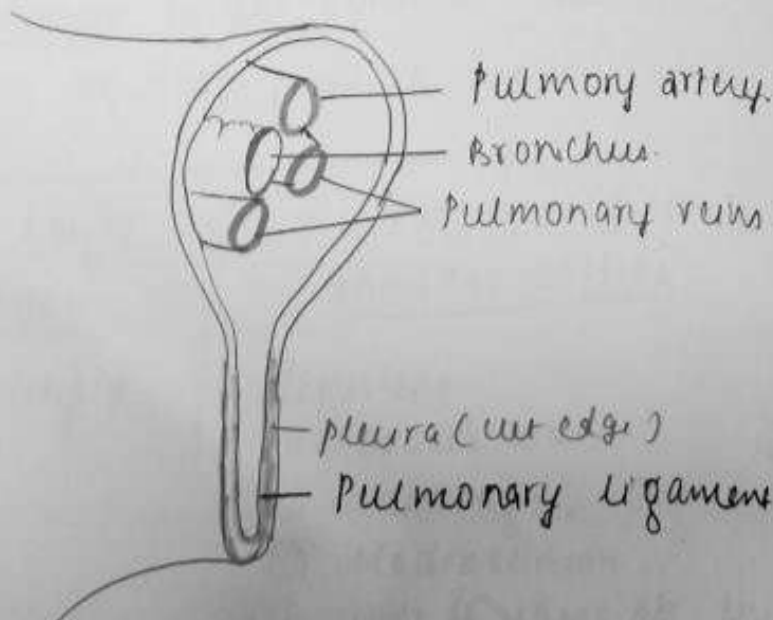


SUBDIVISIONS OF PARIETAL PLEURA

• Acc. to the region where it lies / the surface which it covers, Parietal Pleura is divided into 4 parts:-



★ PULMONARY LIGAMENT www.FirstRanker.com



- (i) double layered seral fold of cut of pleura.
- (ii) hangs downward below the root of lung upto diaphragm.
- (iii) Parietal & visceral layer of pleura become continuous with one another by means of cut of pleura that surrounds the root of lung.

Functions:-

- (i) provides dead space for expansion of pulmonary veins during increased venous return.
- (ii) allows descent of root of lungs along with descent of diaphragm during inspiration to create dead space b/w apex of lung & suprapleural membrane, which helps with expansion of apex of lung.

PLEURAL CAVITY

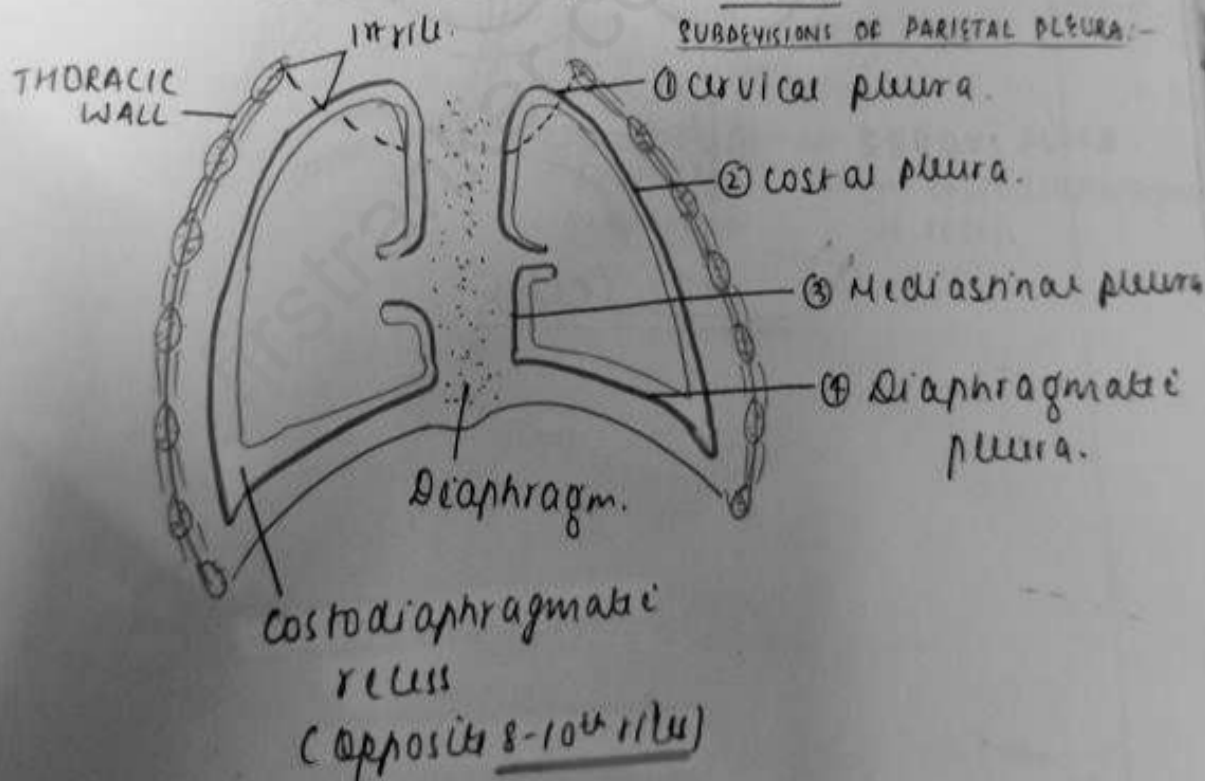
- space between parietal and visceral layer of pleura.
- contains 5-10 ml of clear fluid (lubricant)

2010

PLEURAL RECESSES

- part of pleural cavity not occupied by lung during quiet respiration.
- provide reserve spaces to be occupied by lungs during deep inspiration.

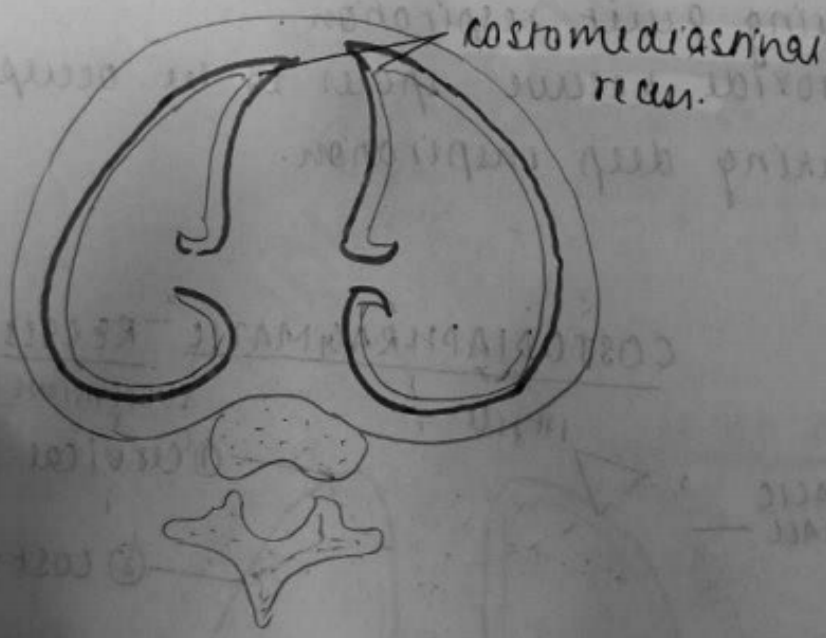
COSTODIAPHRAGMATIC RECESS



- 2 slit like spaces on each side
- b/w costal & diaphragmatic pleura.
- most dependent part of pleural cavity.
- not in costophrenic L.

COSTOMEDIASTINAL RECESS

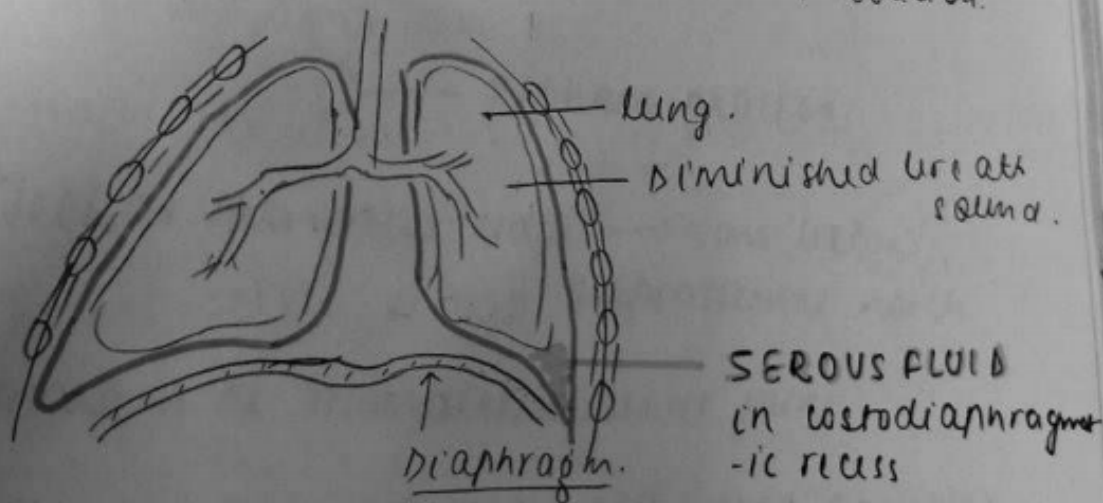
- (i) slit like space
- (ii) one on each side between costal and mediastinal pleurae.
- (iii) situated along anterior margin of lungs.



H2 section

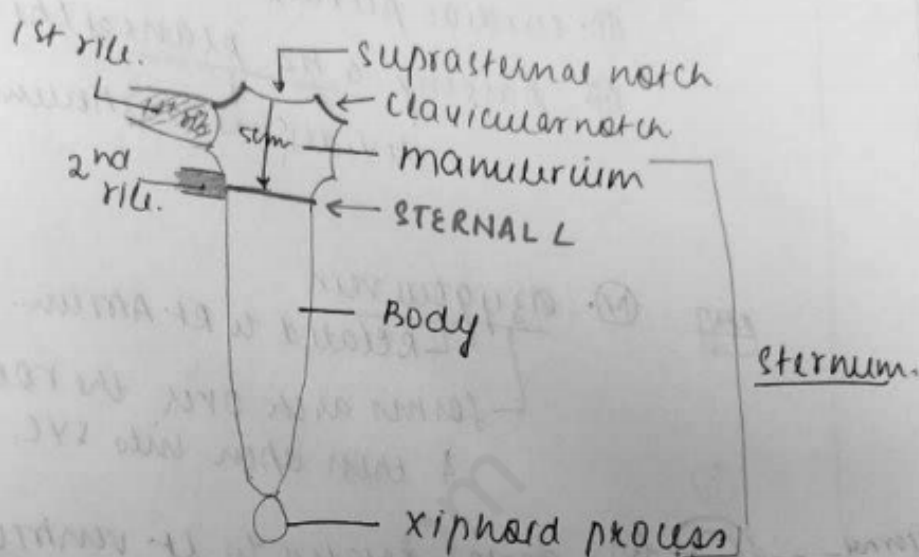
2010
+ PLEURAL EFFUSION

- (i) abnormal accumulation of fluid in pleural cavity.
- (ii) The fluid in collects in most dependent parts i.e. costodiaphragmatic recess.
- (iii) Clinically it presents:-
 - (i) ↓ lung expansion on the side of effusion.
 - (ii) ↓ breath sound.
 - (iii) Dullness on percussion over the area of effusion.



STERNAL L / L OF LOUIS

10/05/19.



• Felt as transverse ridge. → 5cm below suprasternal notch

• mark → as manubriosternal joint.

• lies
 Ant. — level of 2nd costal cartilage
 Post. — intervertebral disc b/w T4 & T5 vertebra.

Importance Landmark:-

① used for counting of ribs.

② trachea → divide into 2 primary bronchi
 [at the level of sternal L.

③ Thoracic duct — cross midline & goes Rt → Lt side of body.
 [at the level of T5 vertebra]
 & reach to left side at the level of sternal L.

④ Heart.

① Heart ^{sternal L} mark upper limit of base of heart

② cardiac plexus ^{situated} at the level of st L

③ passing a HZ plane at this level (H.L)

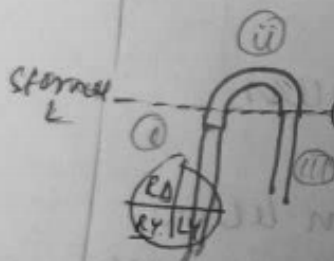
divides mediastinum into sup. M.
inf. M.



④ Azygos vein

— Related to Rt. Atrium

— forms arch over the root of Rt. lung & then open into SVC



⑤ Aorta - related to Lt. ventricle

⑥ Ascending aorta — starts from Lt. end at sternal

⑦ Arch of aorta — start & end at sternal

⑧ Descending Aorta — start from sternal

⑨ Pulmonary Trunk - related to Rt. ventricle
— divide into ② pulmonary arteries
at the level of sternal L / just below sternal L.