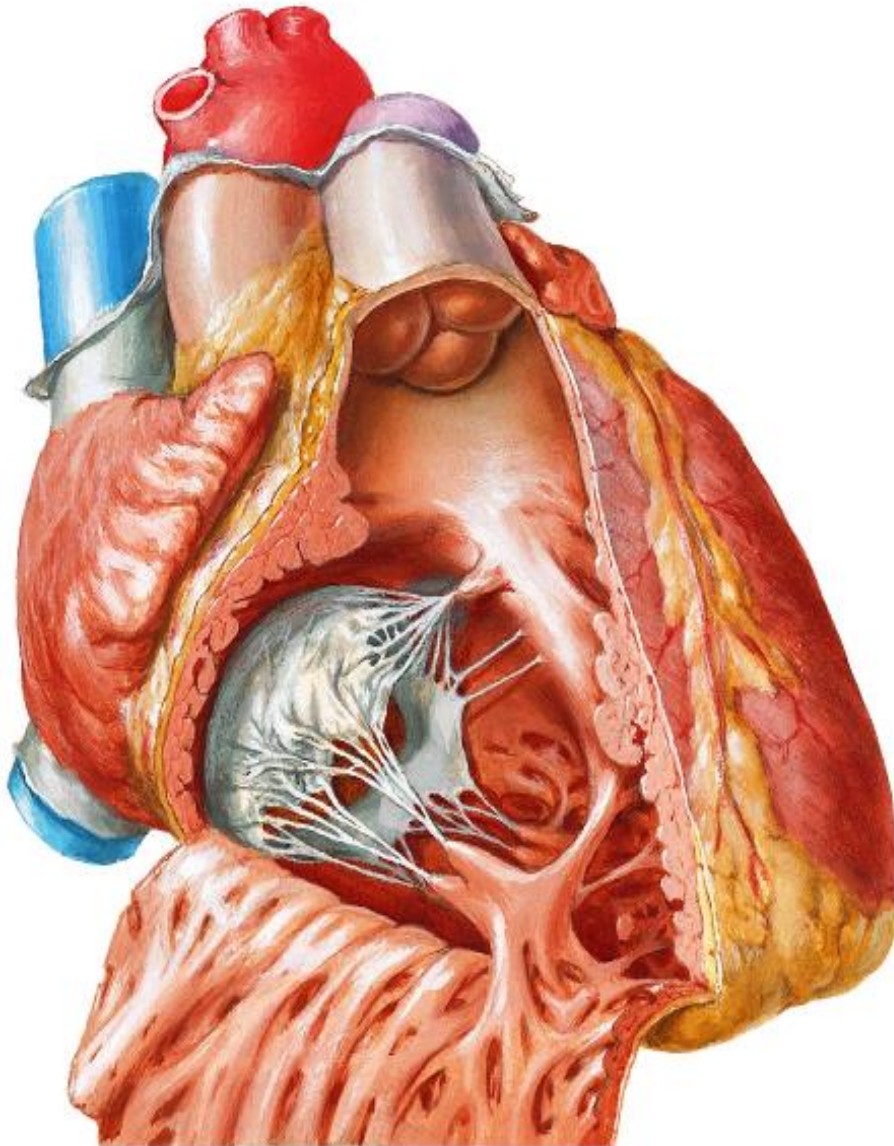


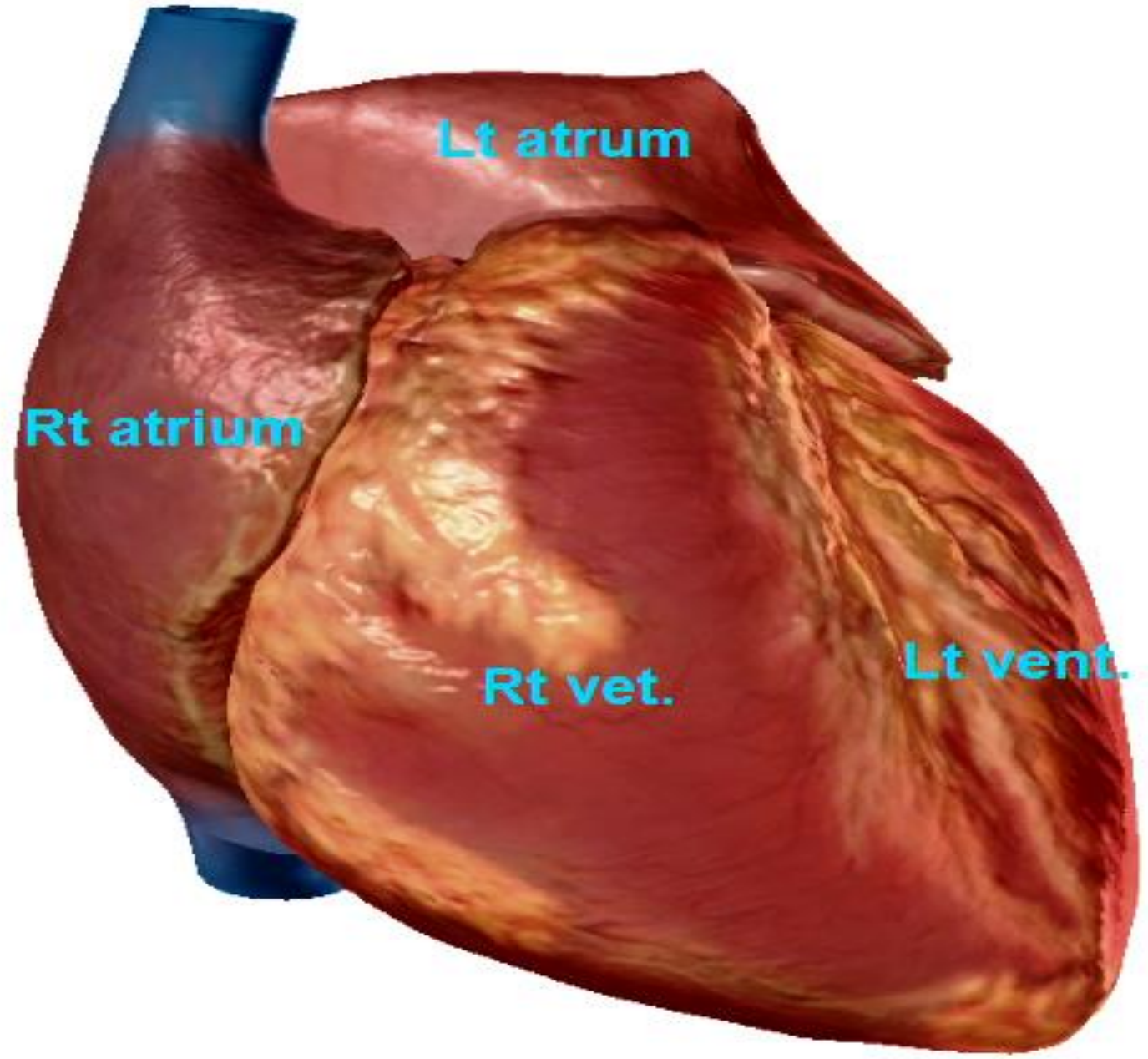
# HEART INTERNAL FEATURES



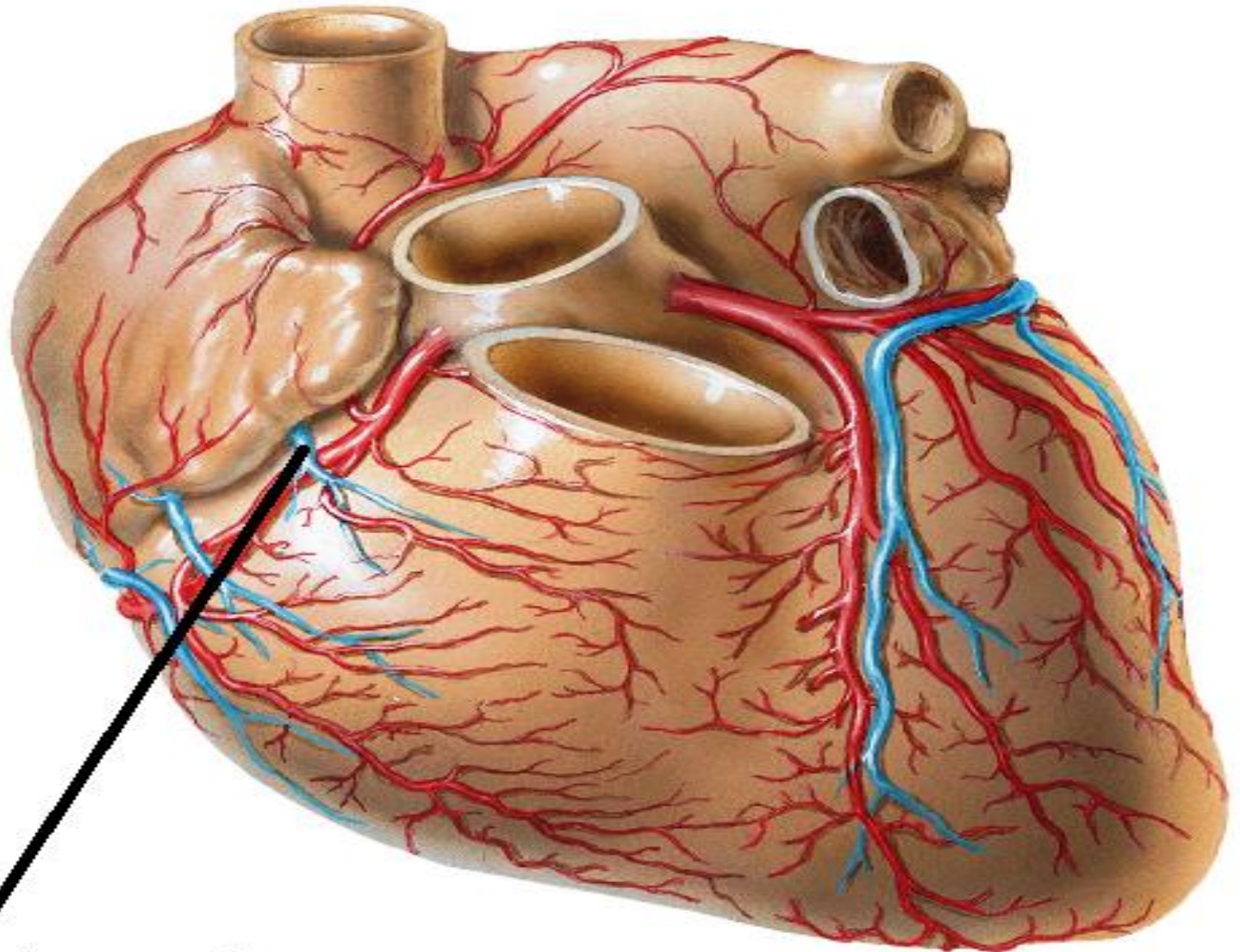
BY

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MUTAH UNIVERSITY

REV.



REV.

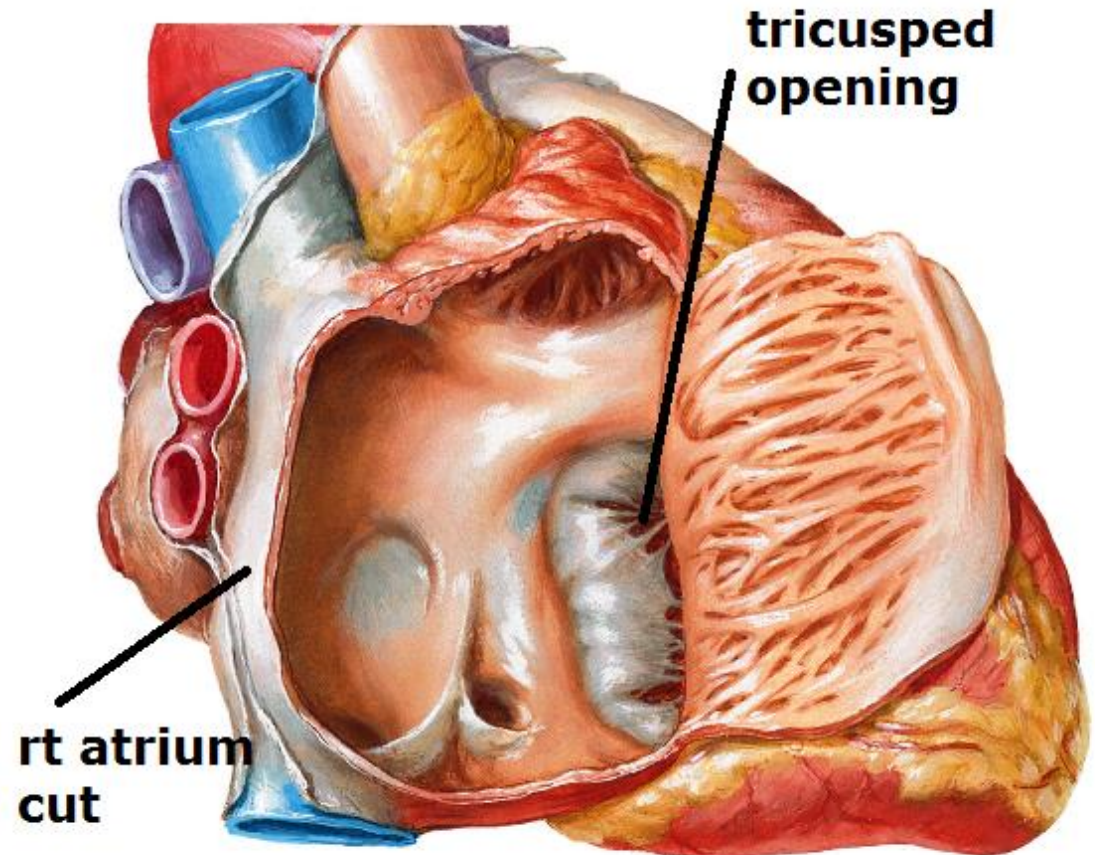


**Ant. cardiac v.**

# RT. ATRIUM

## A-Tricuspid opening :-

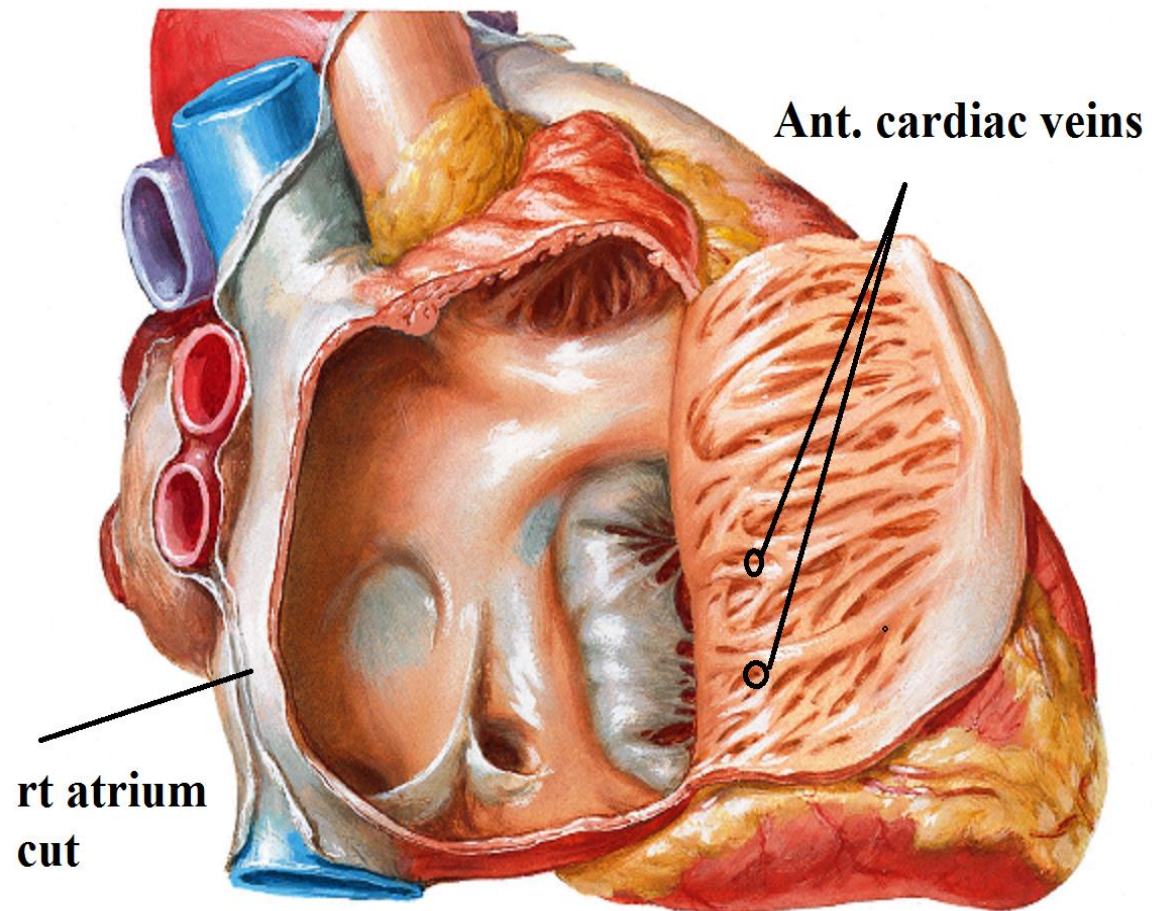
- In lower anterior part of rt atrium
- Guarded by tricuspid valve
- admit 3 fingers



# RT. ATRIUM

B. Rough anterior Part: shows

1. Openings of anterior cardiac veins.

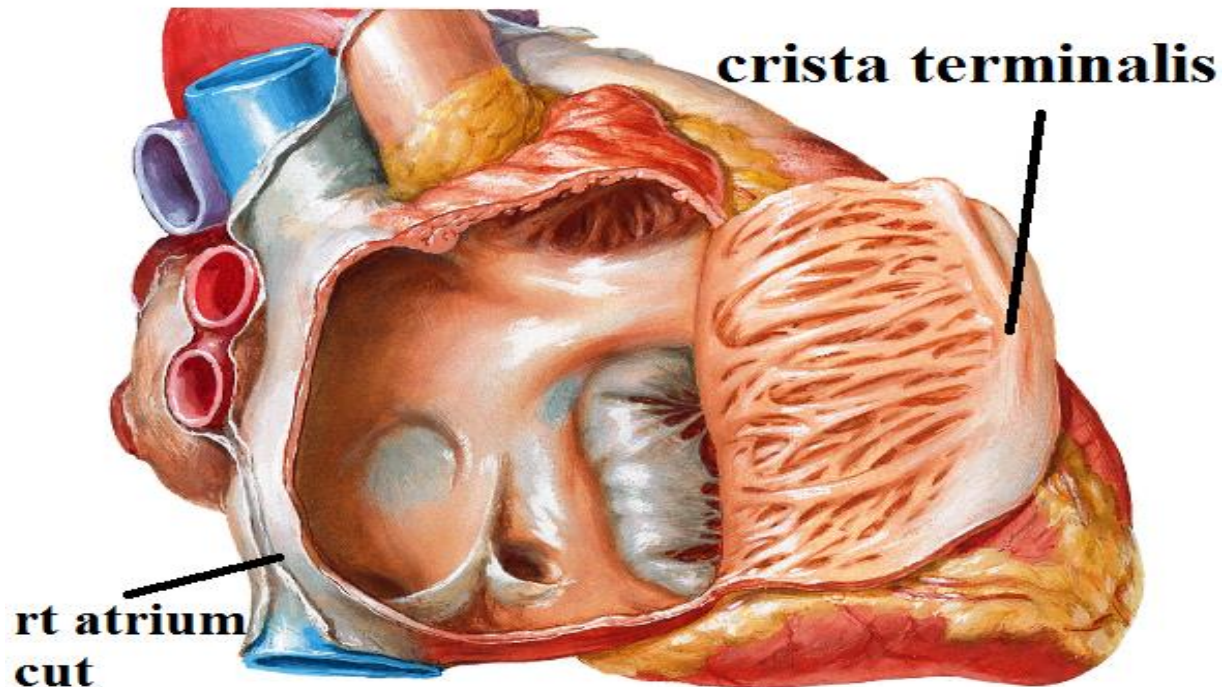


# RT. ATRIUM

## B. Rough anterior Part: shows

### 2. Crista terminalis:

- Vertical muscular ridge between openings of SVC & IVC
- Represented externally by sulcus terminalis
- Separate ant part from post part.

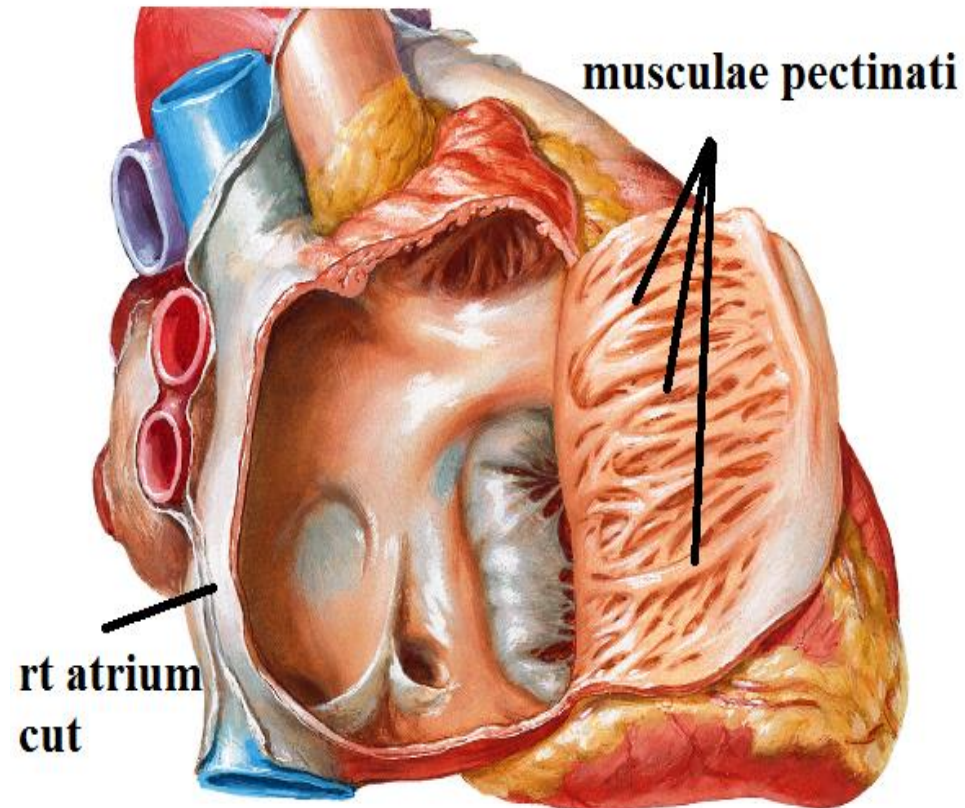


# RT. ATRIUM

B. Rough anterior Part: shows

3- **Musculae pectinati:**

Transverse muscular ridges from crista terminalis to anterior wall of rt atrium

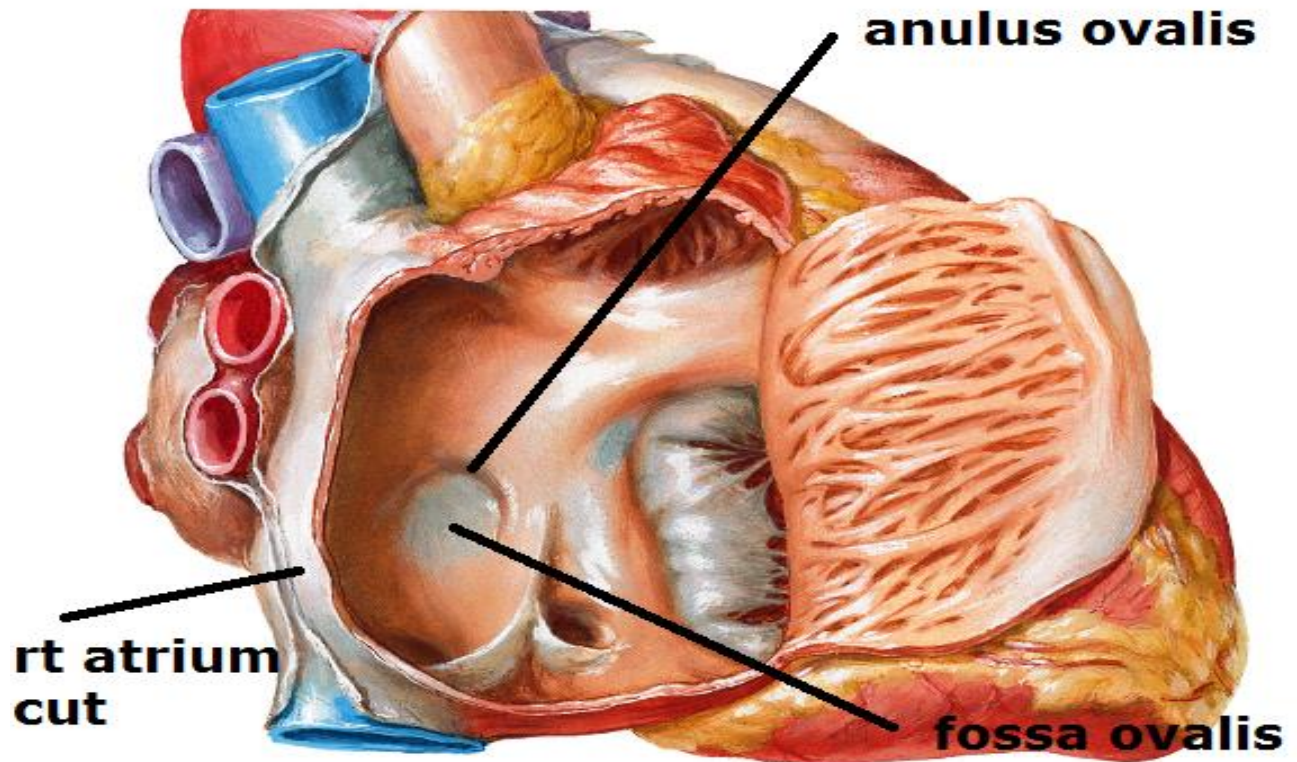


# RT. ATRIUM

## C. Smooth Posterior part :- shows

**1-Fossa ovalis :** depression on the interatrial septum above the opening of IVC

**2-Anulus ovalis :-** curved ridge above & in front of fossa ovalis





# RT. ATRIUM

## C. Smooth Posterior part :- shows

3-openings of S.V.C: opposite rt 3<sup>rd</sup> c.c. -has no valve

4-opening of I.V.C opposite rt 6<sup>th</sup> c.c.– has a nonfunctioning valve

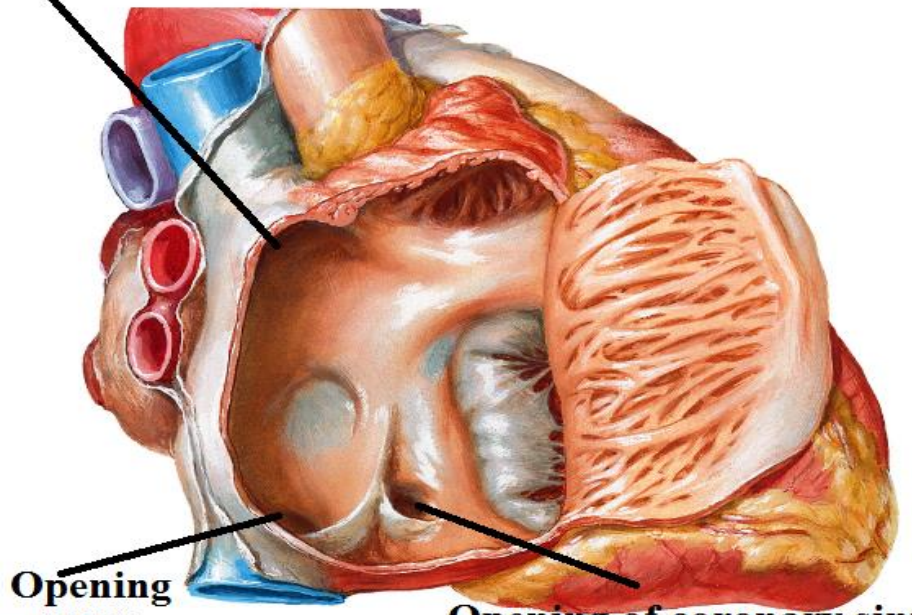
5-opening of coronary sinus:-Between tricuspid opening & valve of IVC – has a nonfunctioning valve

6-venae cordis minimi

Opening of SVC

Opening of IVC

Opening of coronary sinus



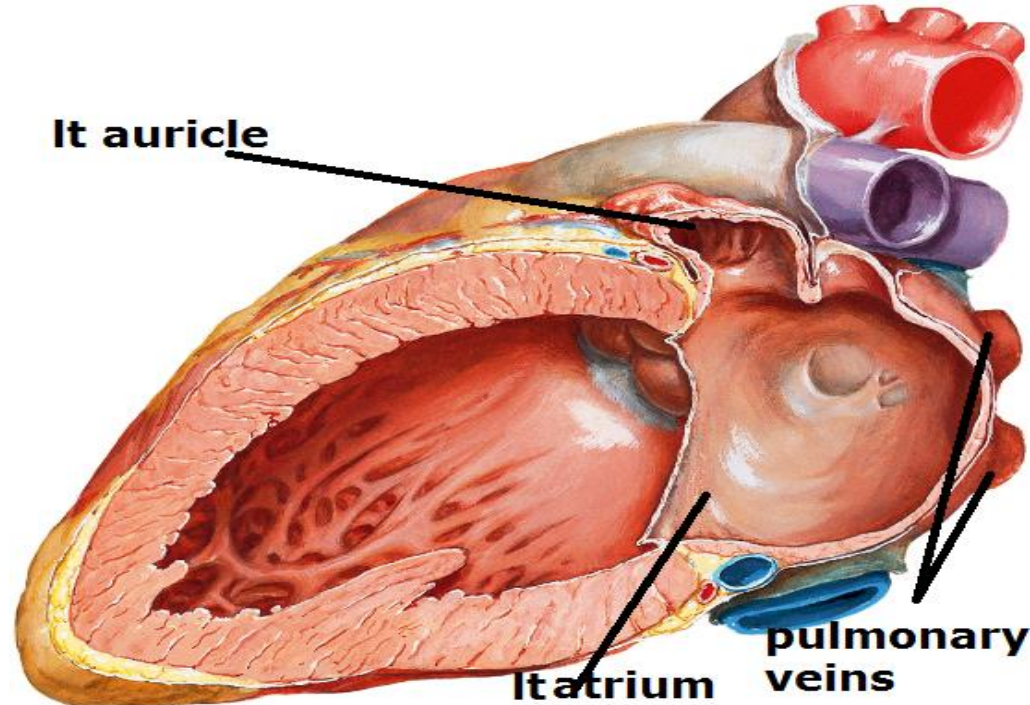
# LT ATRIUM

A-Mitral opening : -Guarded by mitral valve  
-admit 2 fingers

B- Rough anterior Part :

only the auricle that has muscoli pectinati

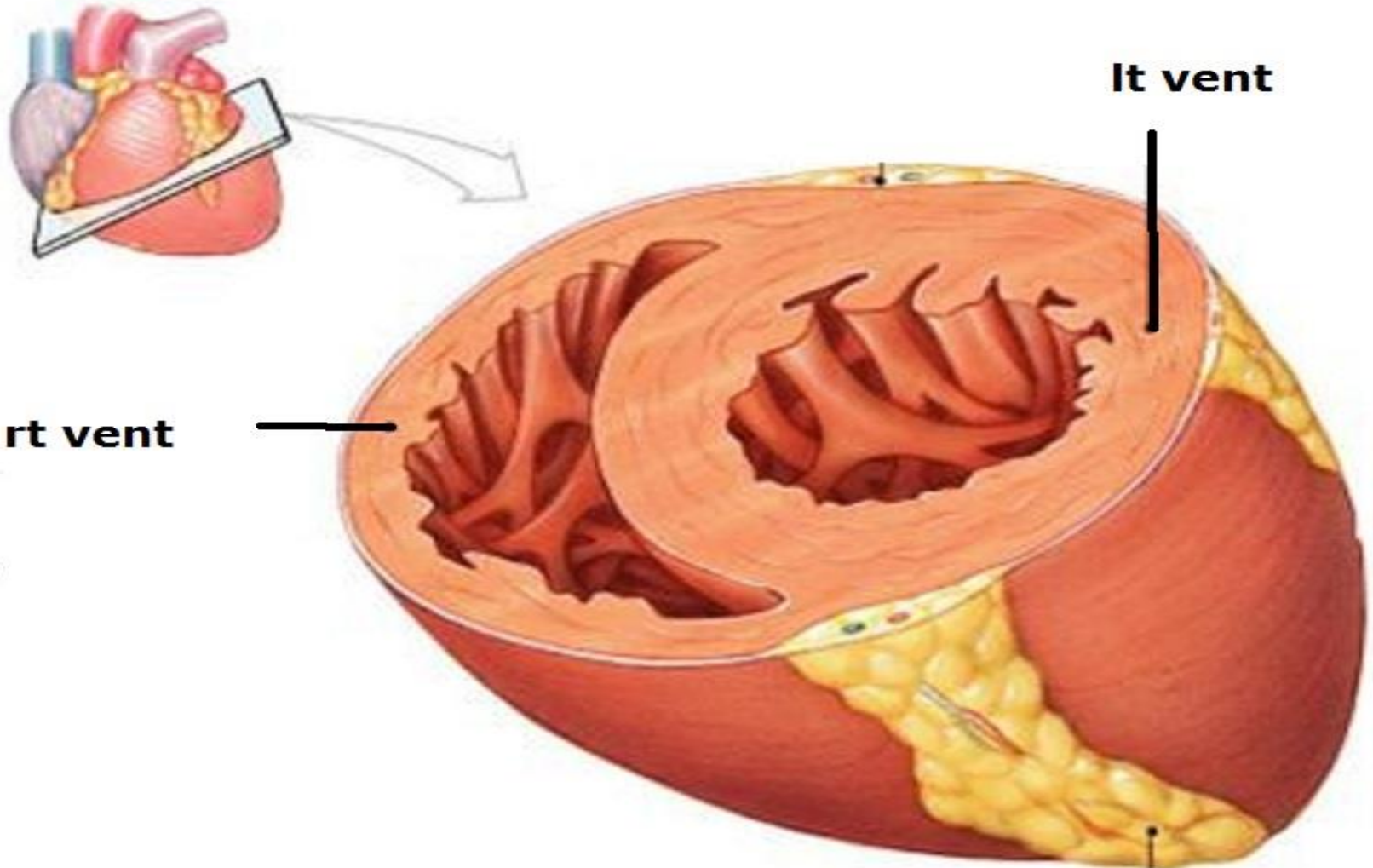
C-Smooth posterior part: - shows openings of  
-4 pulmonary veins(near to upper part) with no valves  
-vena cordis minimi



# RT VENTRICLE

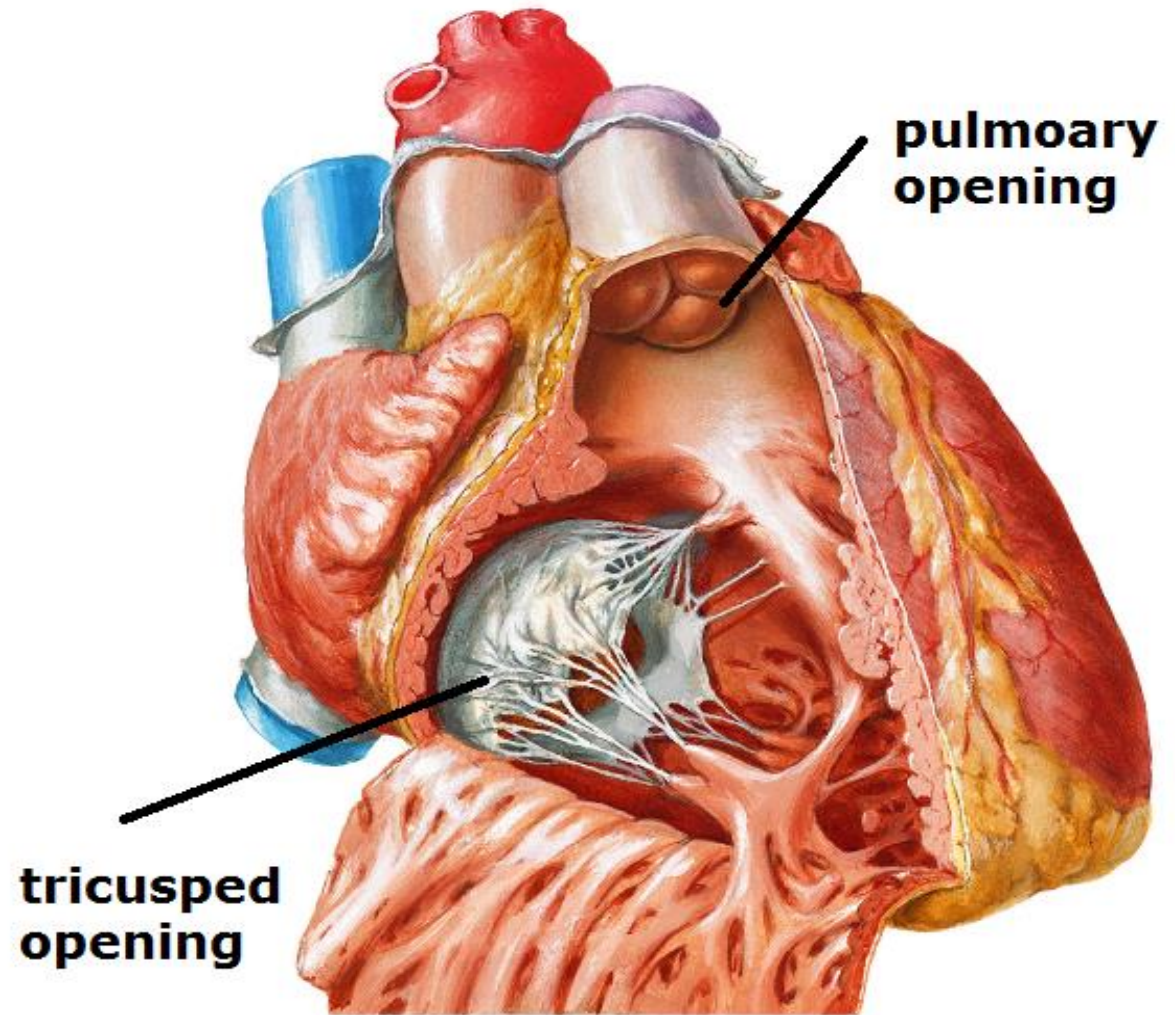
## Cross section

Semilunar- 1/3 thickness of the lt ventricle



# RT VENTRICLE

A- 2 openings: tricuspid -pulmonary

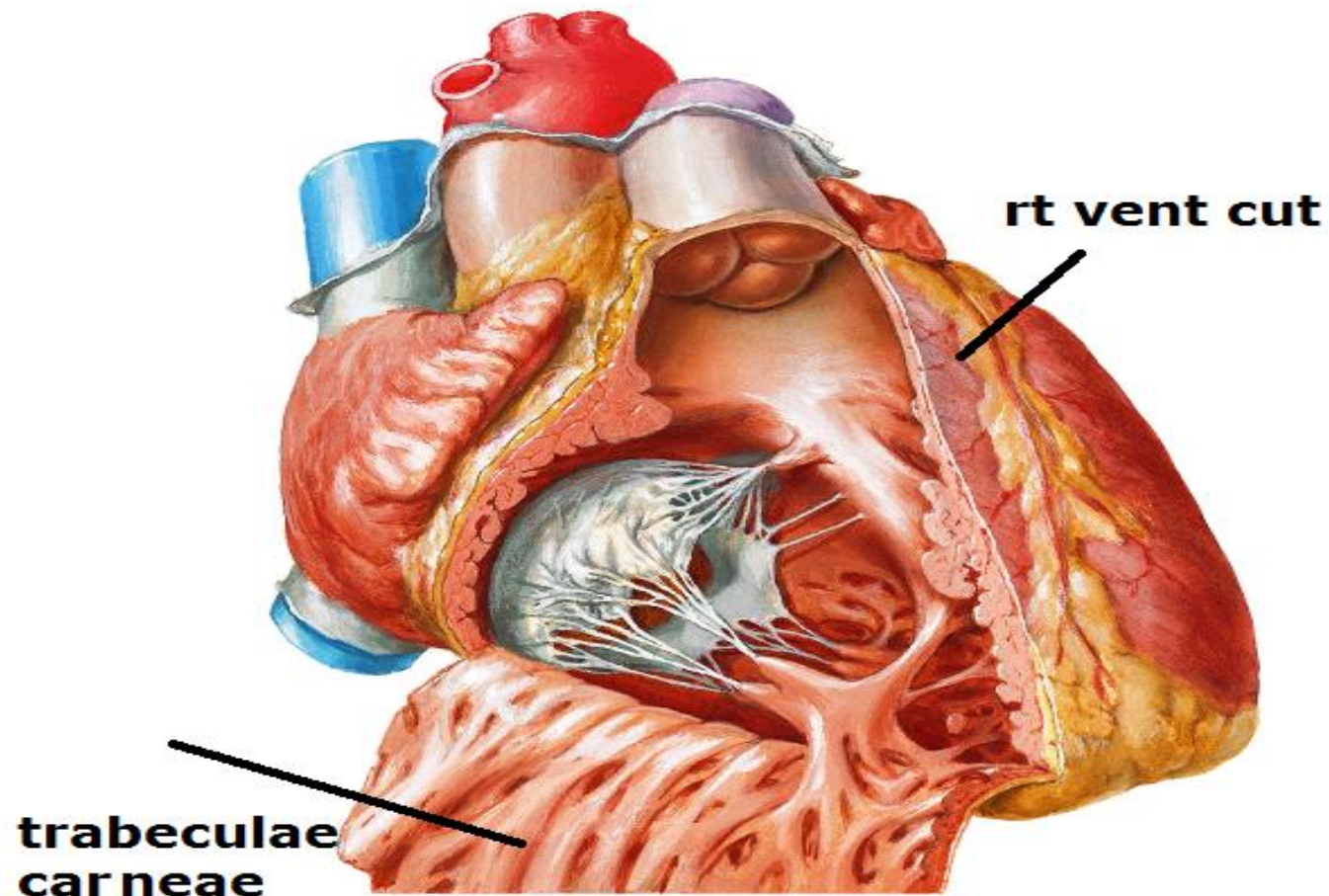


# RT VENTRICLE

B- rough (inflow) part : shows

1-Trabeculae carneae:

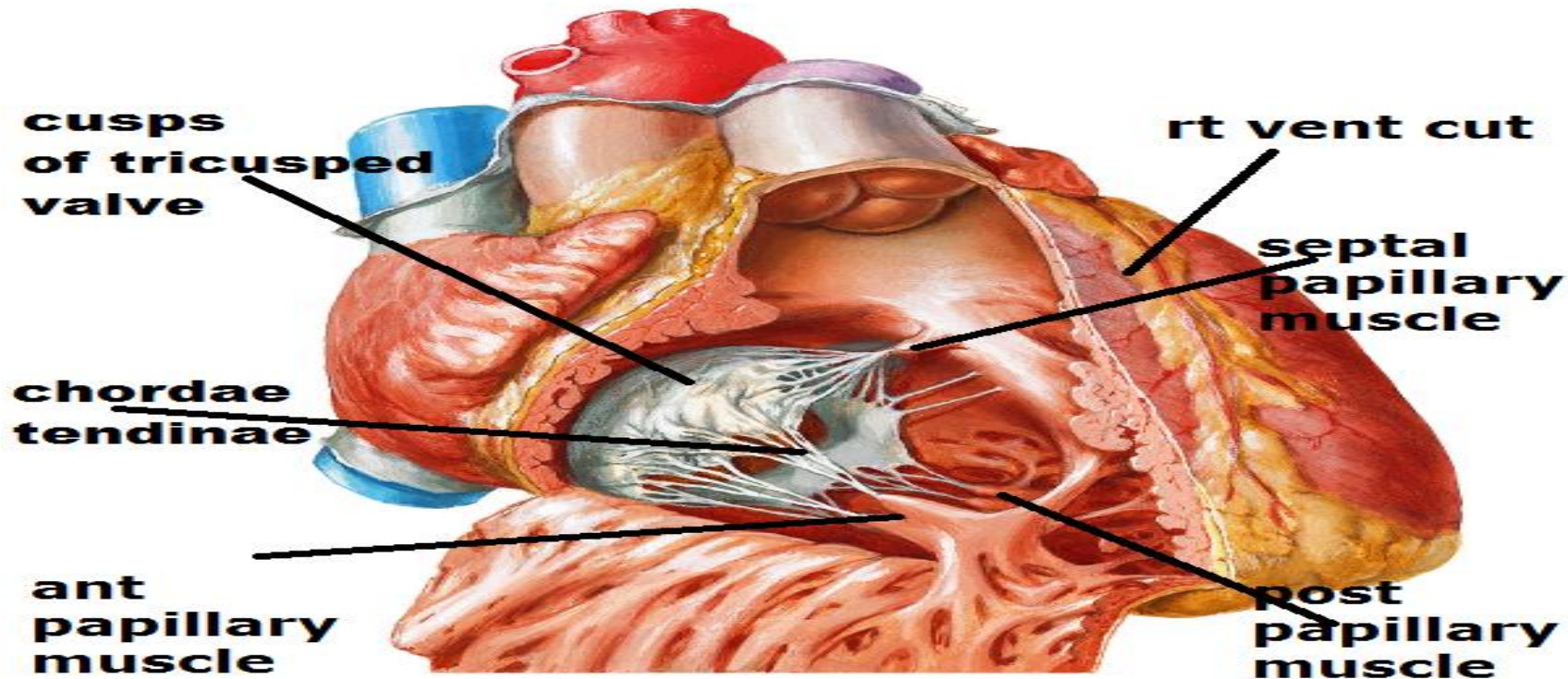
Muscular ridges that freely intercross forming sponge meshwork



# RT VENTRICLE

B- rough (inflow) part : shows

**2-papillary muscles** : no.:- 3 Ant.(constant), post. & septal  
shape:- conical has base:- attached to ventricular wall  
apex:- give chordae tendinae to margins & ventricular surface  
of cusps of the tricuspid valve each muscle attach to 2 adjacent  
cusps function:- prevent valve regurge



# RT VENTRICLE

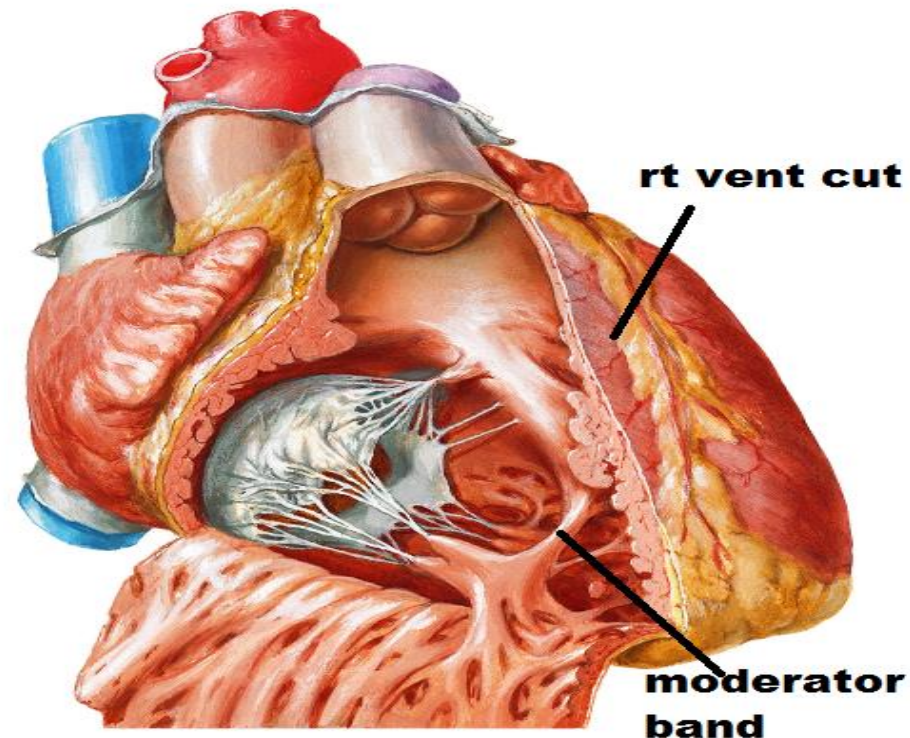
B- rough (inflow) part : shows

**3-moderator band** : (septomarginal trabecula) :

- a trabecula from septum to base of ant. papillary muscle.

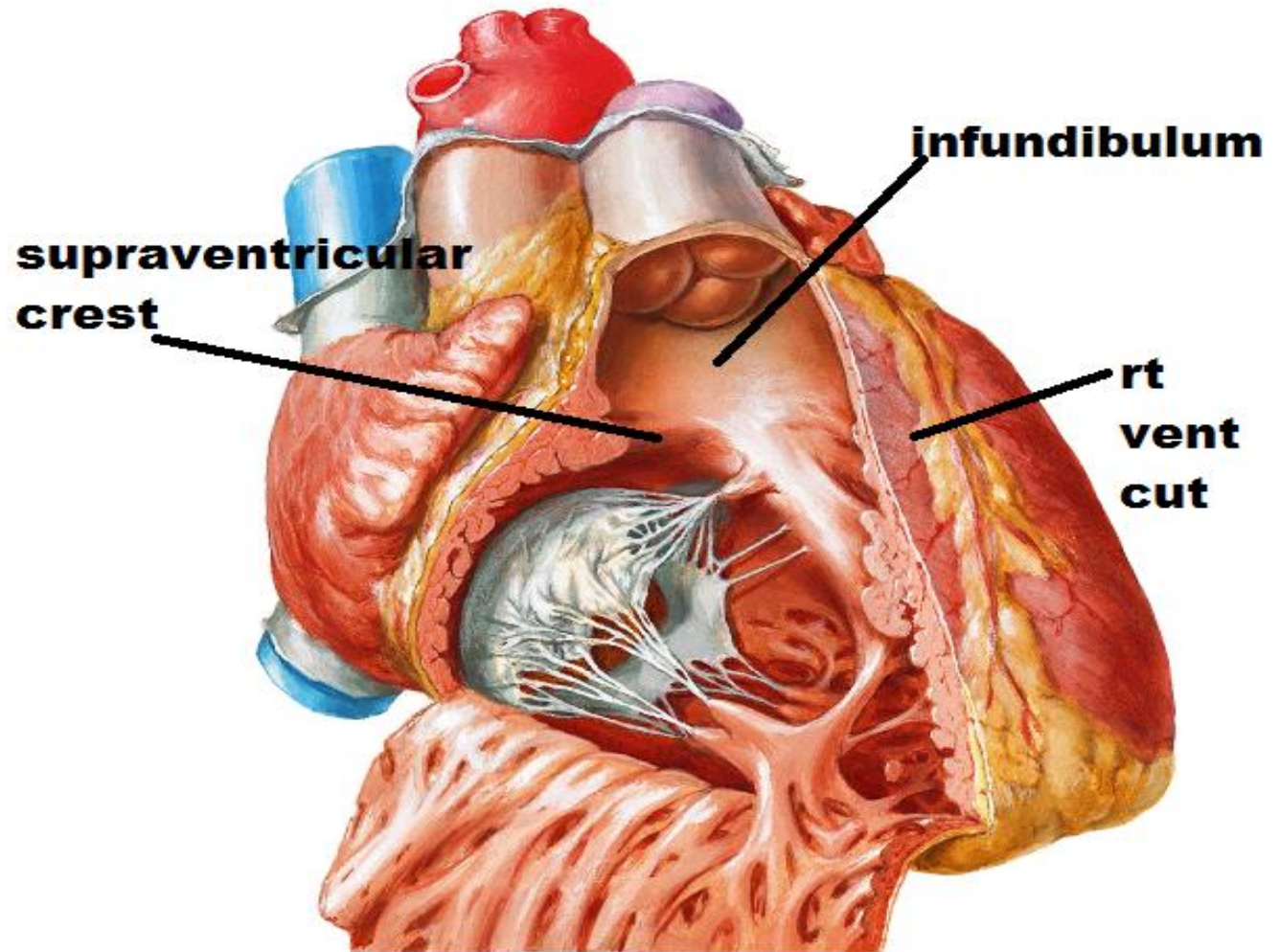
Function:- Transmit Rt bundle br.

Prevent over distention of Rt. ventr.



# RT VENTRICLE

C- smooth (outflow) part := Infundibulum  
separated from inflow part by supraventricular crest

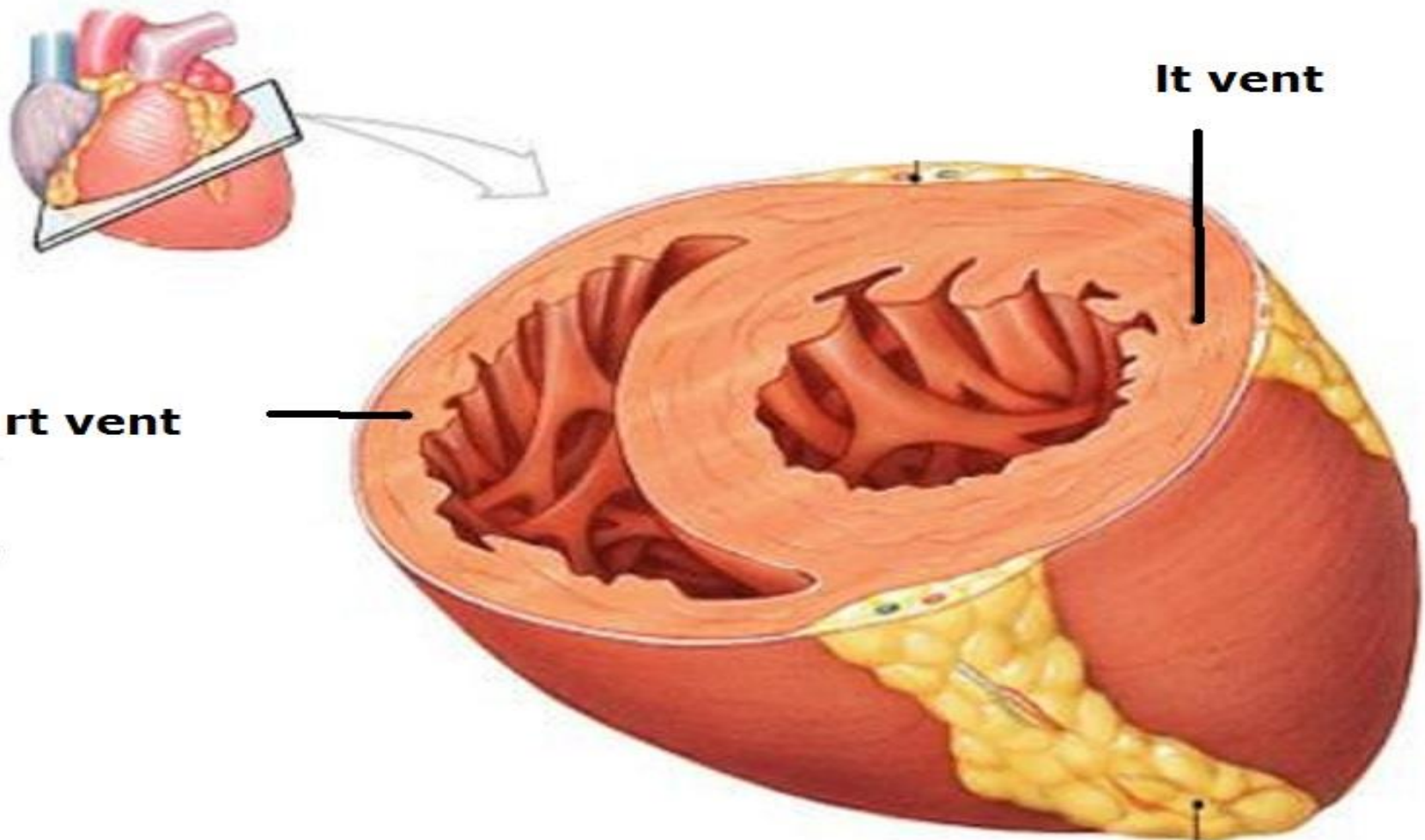




# LT VENTRICLE

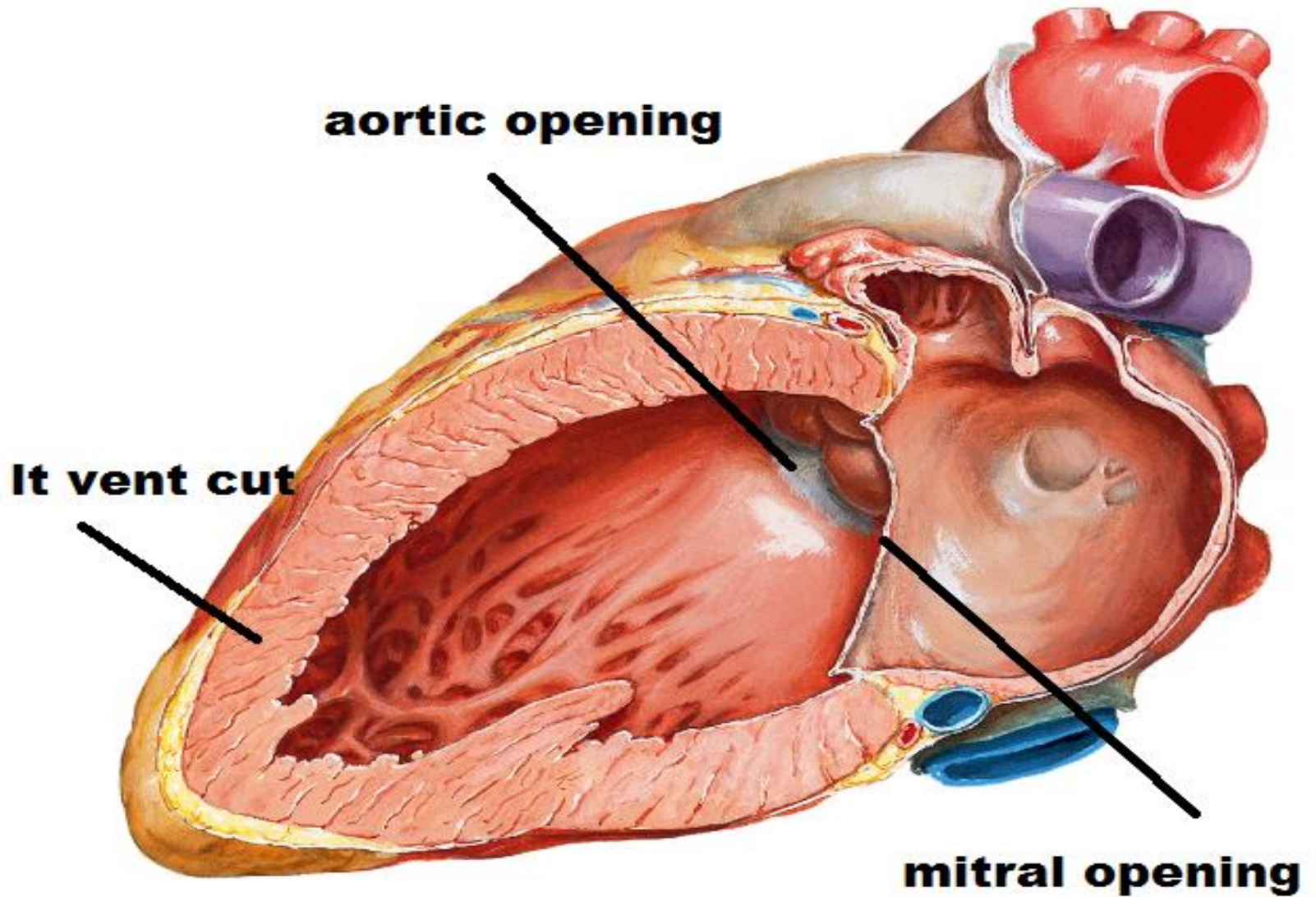
Cross section

circular- 3 times thickness of the rt ventricle



# LT VENTRICLE

A- 2 openings: mitral - aortic



# LT VENTRICLE

B- rough (inflow) part : shows

1-Trabeculae carneae: finer , multiple than that of the rt vent.

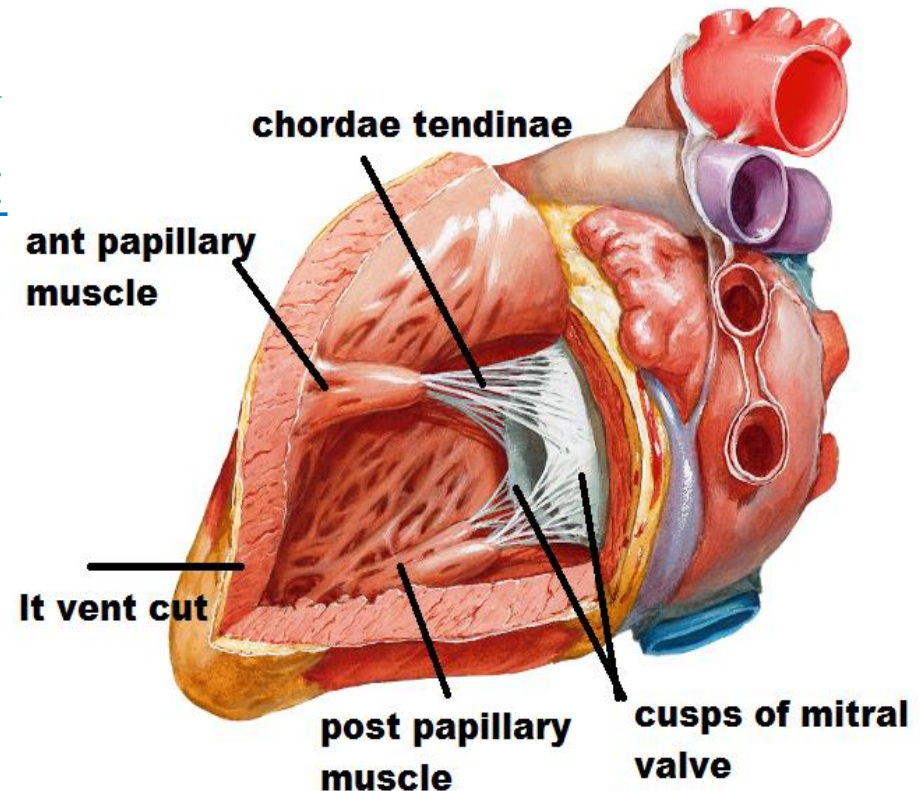
2-papillary muscles : no.:- 2 Ant., post.

shape:- larger than that of rt vent. , chordae tendinae are thicker & fewer ,attach to margins & ventricular surface of both cusps of the mitral valve

3- has no moderator band

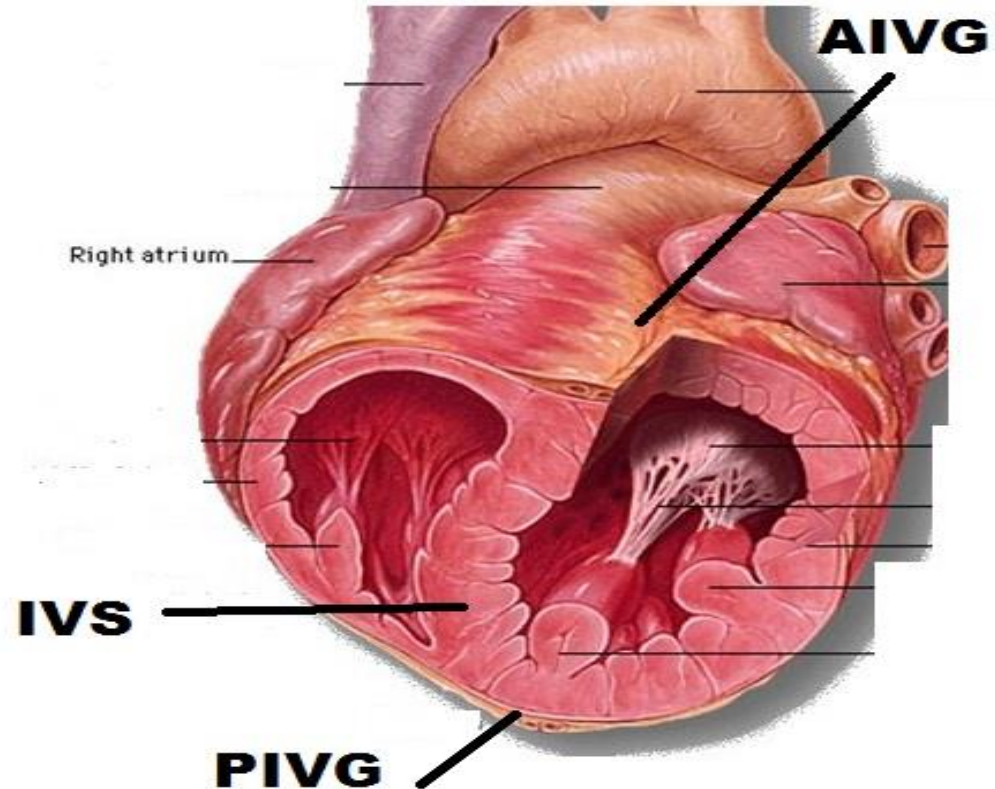
C-smooth(outflow)part:

= aortic vestibule



# INTERVENTRICULAR SEPTUM

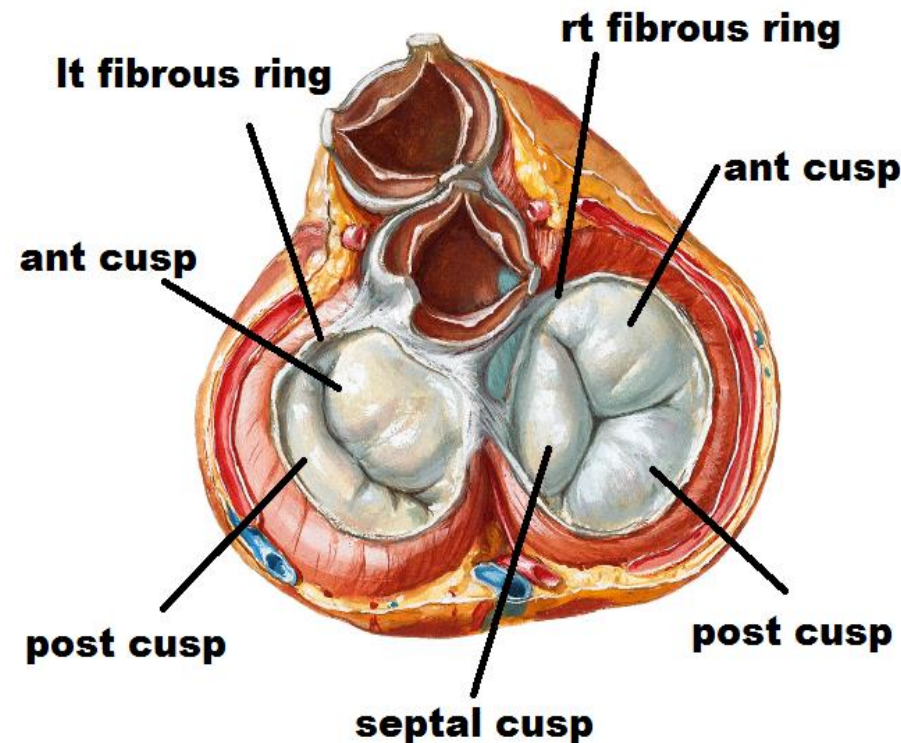
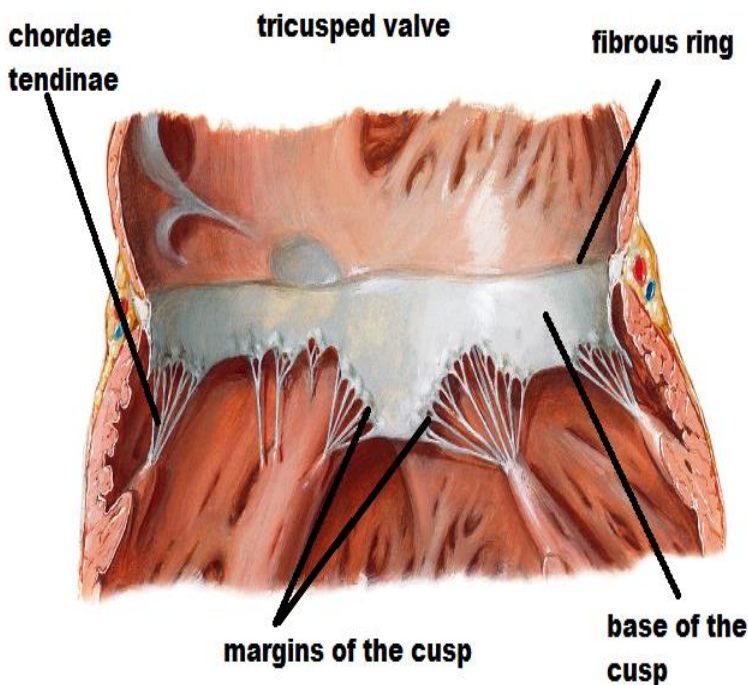
- Oblique septum between rt vent. ant to it, lt vent. behind it
- Convex towards the rt ventricle
- Its ant border corresponds to ant interventricular groove & its post border corresponds to post interventricu. groove
- Consists of 2 parts (Lower muscular & upper membranous parts)



# ATRIOVENTRICULAR VALVES

## Tricuspid valve

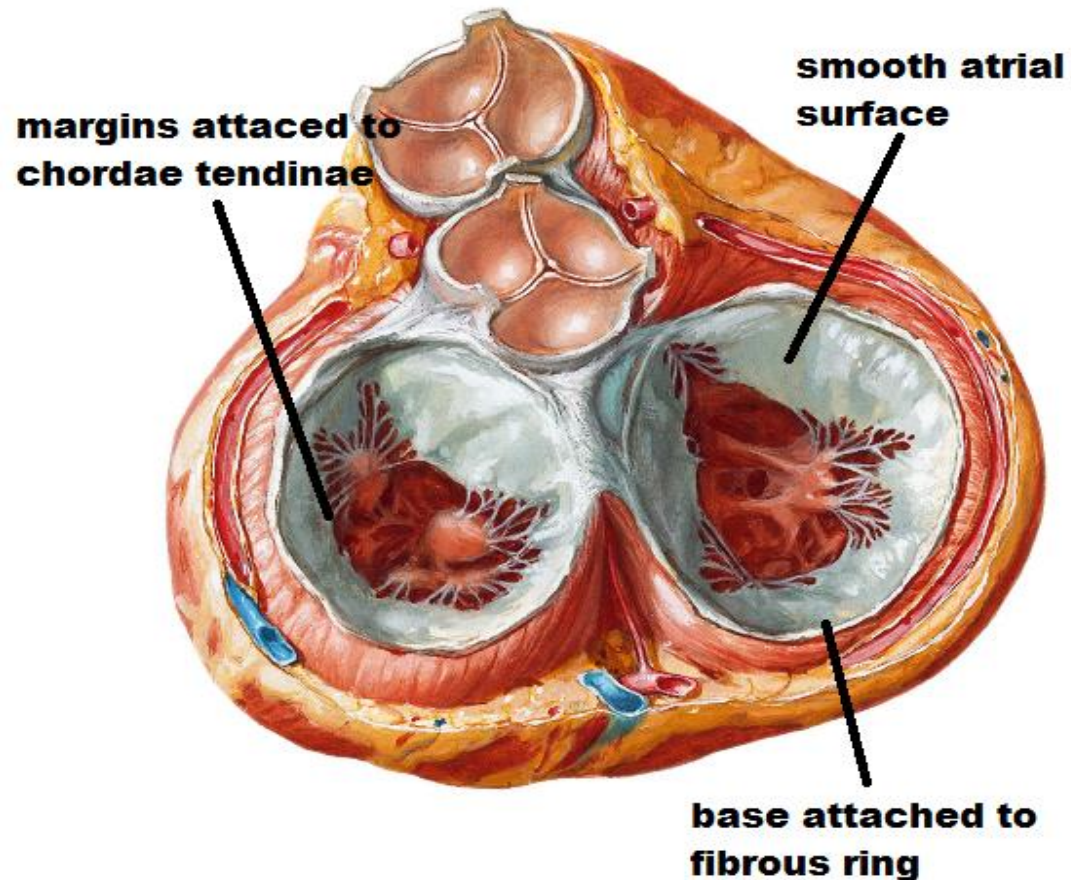
- Formed of 3 cusps ant, post & septal
- each cusp is triangular has a base that attached to fibrous ring & margin that attach to chordae tendinae
- The cusps has 2 surfaces; Smooth atrial surface & rough ventricular surface as it gives attachment to chordae tendinae



# ATRIOVENTRICULAR VALVES

## mitral valve

- As the tricuspid valve but formed of 2 cusps(ant & post)
- The ant cusp lies ant & to the right while post cusp lies post & to the left



# SEMILUNAR VALVES

## aortic valve

-Formed of 3 cusps 1 ant& 2 post

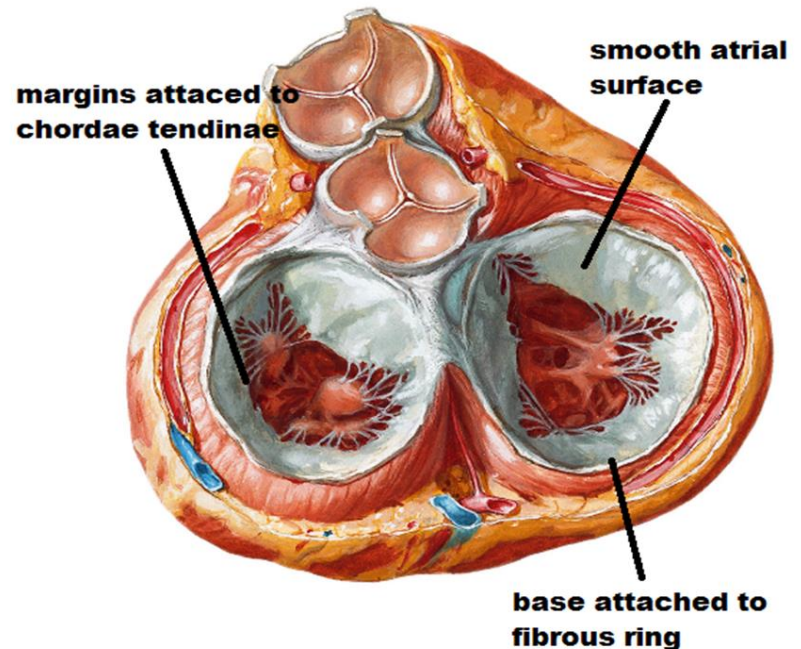
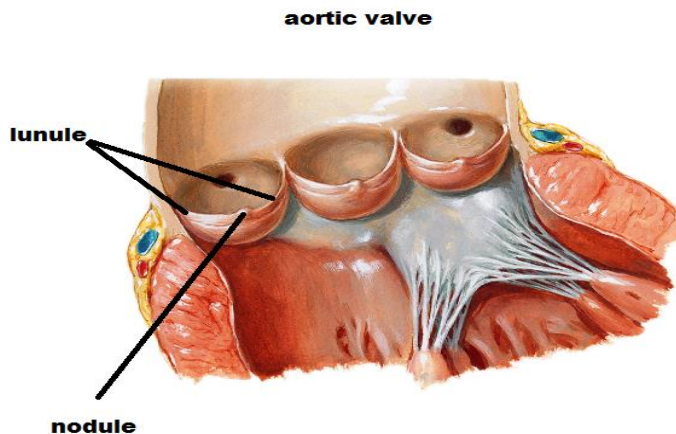
-The cusps are semilunar has

- upper margin (free) shows thickened nodule in the middle & thin lunule on the sides
- lower margin & sides (attached to arterial wall)

-The cusps has 2 surfaces

upper surface concave

lower surface convex



# SEMILUNAR VALVES

## pulmonary valve

-Formed of 3 cusps 1 post & 2 ant

-The cusps are semilunar has

- upper margin (free) shows thickened nodule in the middle & thin lunule on the sides
- lower margin & sides (attached to arterial wall)

-The cusps has 2 surfaces

upper surface concave

lower surface convex





THANQ