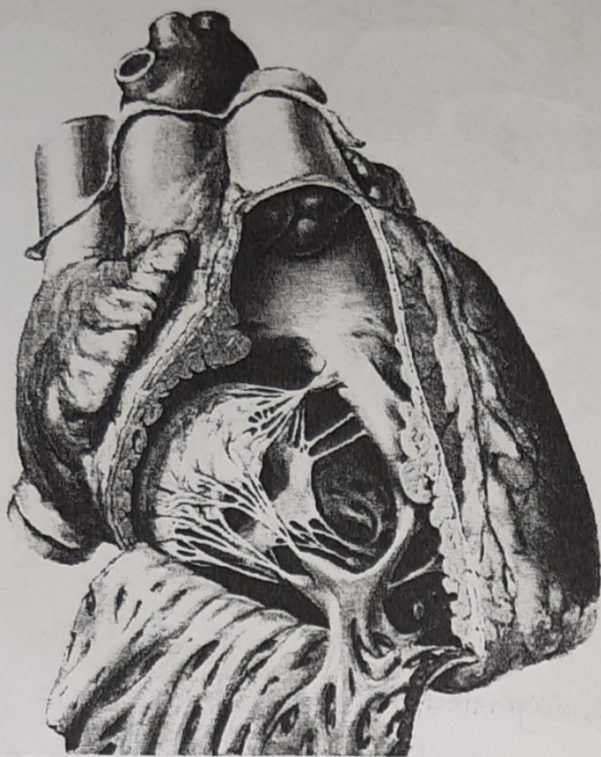


HEART INTERNAL FEATURES

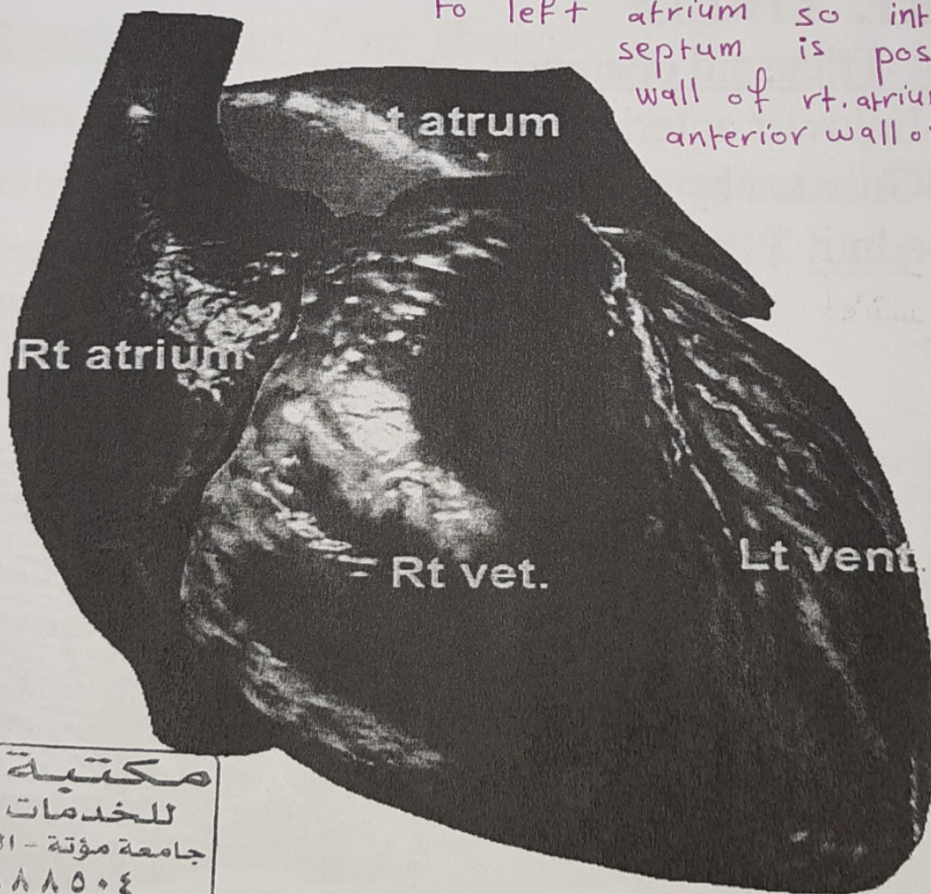
سنة الثالث
 أنا توماس/طبا
 الكافزة أرفيقه
 ٢٠٢١/١١/١٤
 ٢٥



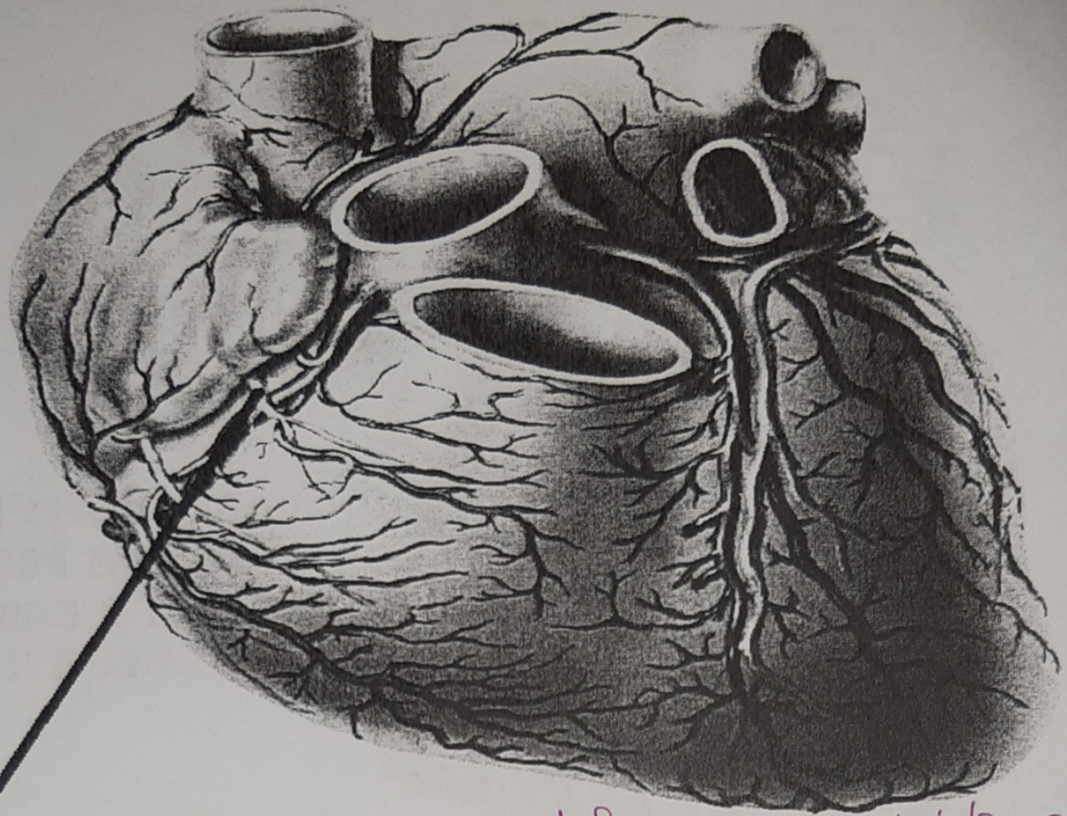
BY
 DR ABULMAATY MOHAMED
 ASSISTANT PROFESSOR
 ANATOMY & EMBRYOLOGY
 MUTAH UNIVERSITY

REV.

- Rt.atrium is right and anterior to left atrium so interatrial septum is posterior wall of rt.atrium and anterior wall of lt.atrium



مكتبة ال ٩٥
 للخدمات الطلابية
 جامعة مؤتة - البوابة الجنوبية
 ٠٧٩٦٩٨٨٥٠٤



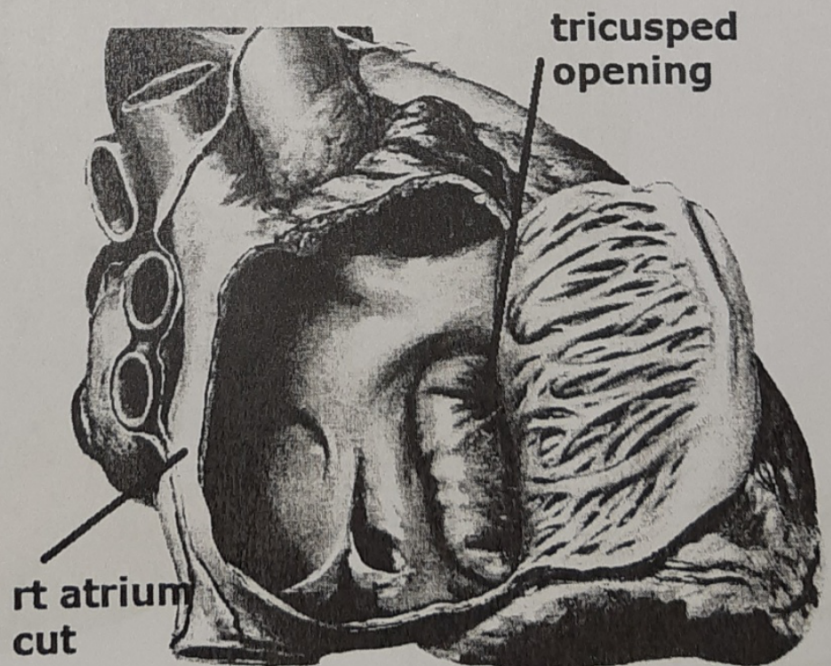
Ant. cardiac v → originated from right ventricle and cross coronary sulcus and terminated in anterior wall of right atrium

RT. ATRIUM

A-Tricuspid opening :-

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

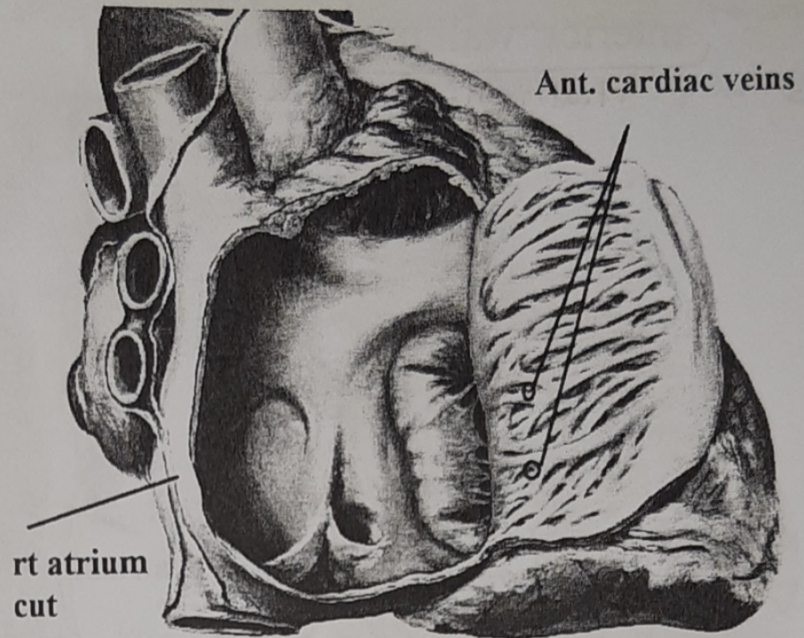
كأن تسع



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.

Smooth
Rough

smooth



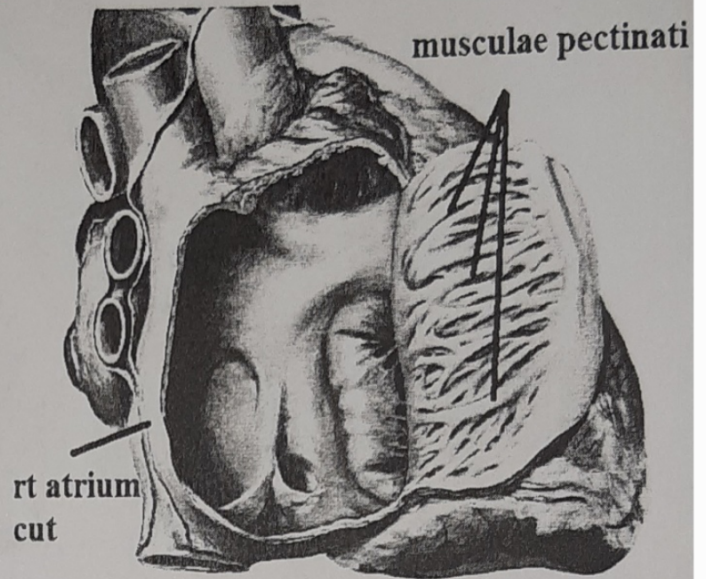
RT. ATRIUM

B. Rough anterior Part: shows

3- Musculae pectinati: *عضلات مشطية*

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

على طول الـ rt.atrium



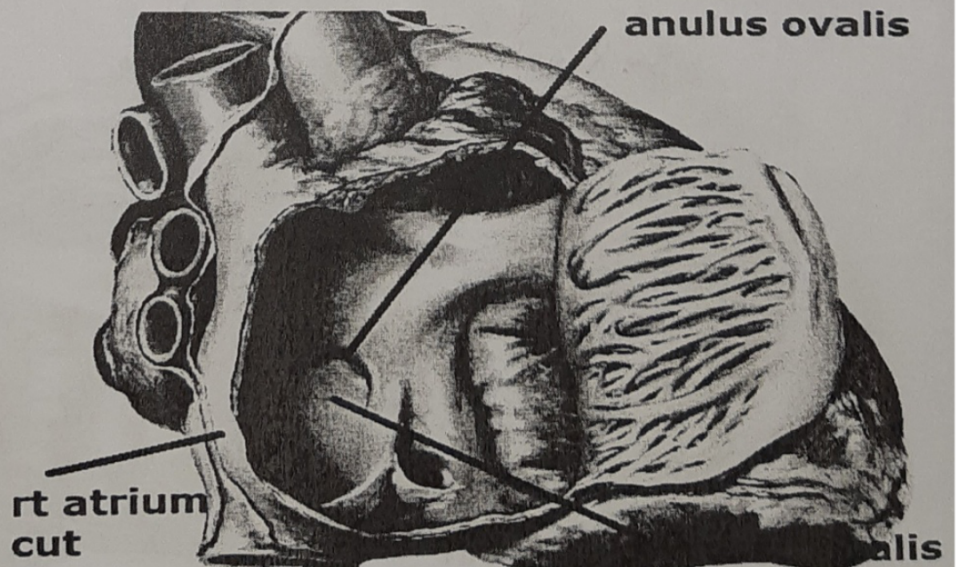
RT. ATRIUM

C. Smooth Posterior part :- shows

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

Posterior wall = ← of rt.atrium

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 3rd c.c. -has no valve

4-opening of I.V.C opposite rt 6th c.c.- has a nonfunctioning valve

→ drain blood from heart to rt. atrium

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

6-venae cordis minimi

small veins exit from chambers wall and open directly in chambers

Opening of SVC



Opening of coronary sinus

- Q: openings of Rt. atrium:

- 1) openings above ↑
- 2) openings of anterior Cardiac Veins
- 3) Tricuspid openings

LT ATRIUM

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

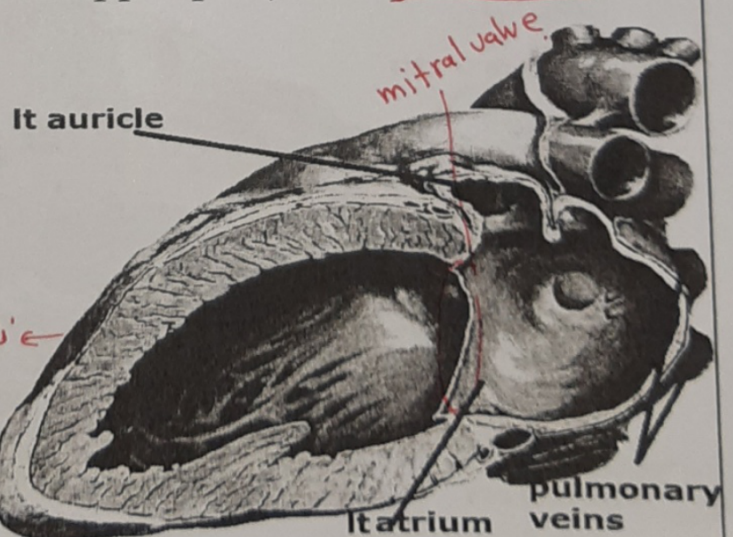
B- Rough anterior Part :

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



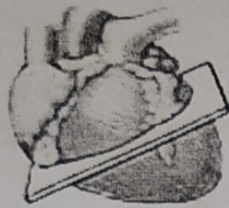
← ننظر من ناحية الشمال
← الظاهر الجزء الخلفي من ال heart

RT VENTRICLE

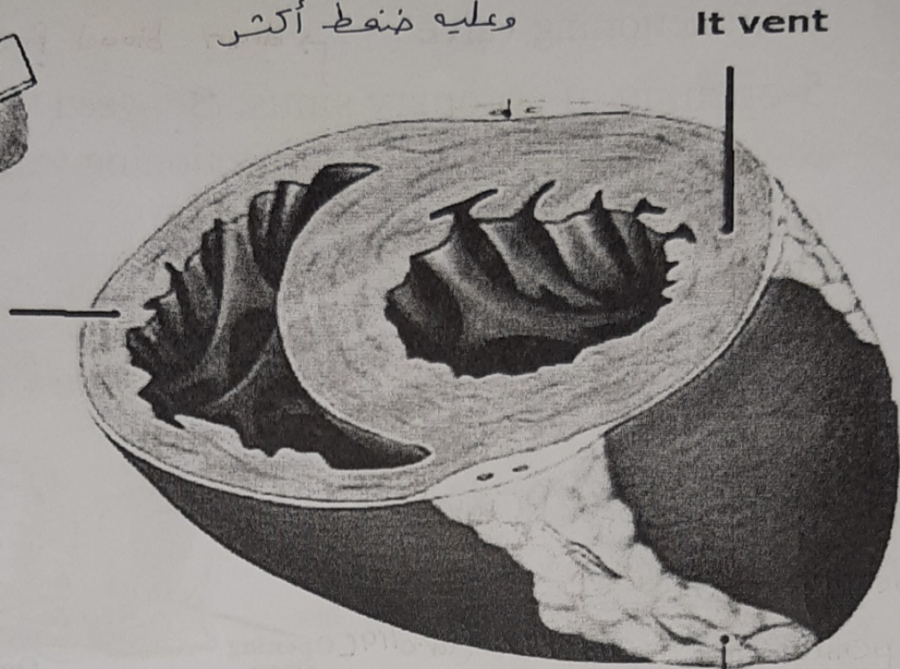
Cross section

Semilunar- $\frac{1}{3}$ thickness of the Lt ventricle

لے لائن ventricle 1/3 بھروسہ دم اکثر
وعليه ضغط أكثر

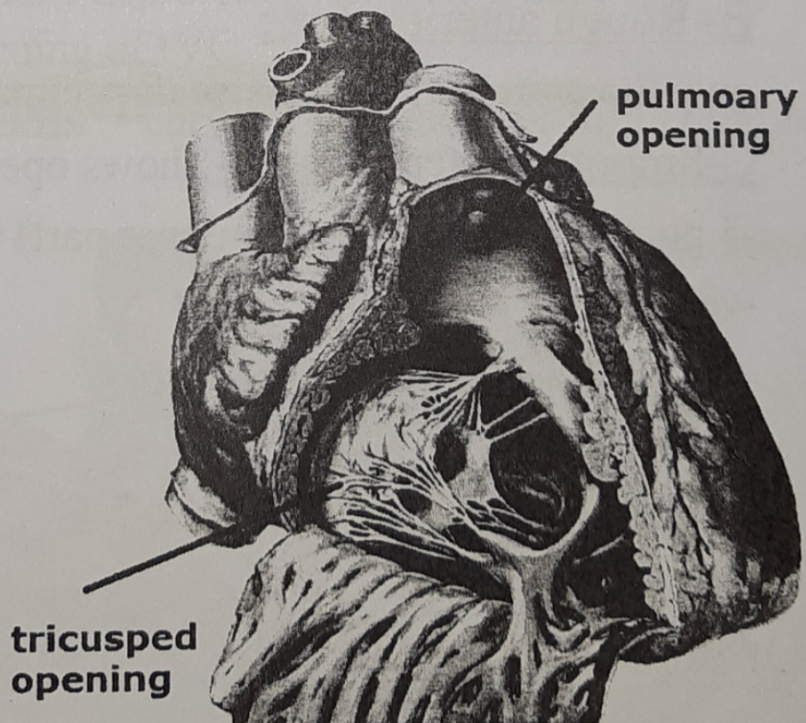


rt vent



RT VENTRICLE

A- 2 openings: tricuspid - pulmonary

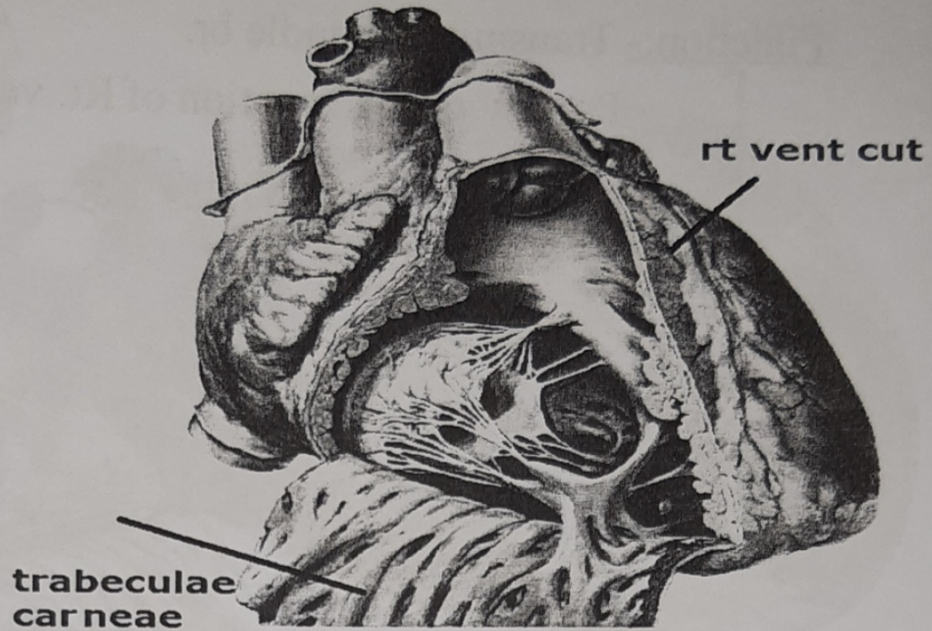


RT VENTRICLE

B- rough (inflow) part : shows

1-Trabeculae carneae:

Muscular ridges that freely intercross forming sponge meshwork



RT VENTRICLE

B- rough (inflow) part : shows

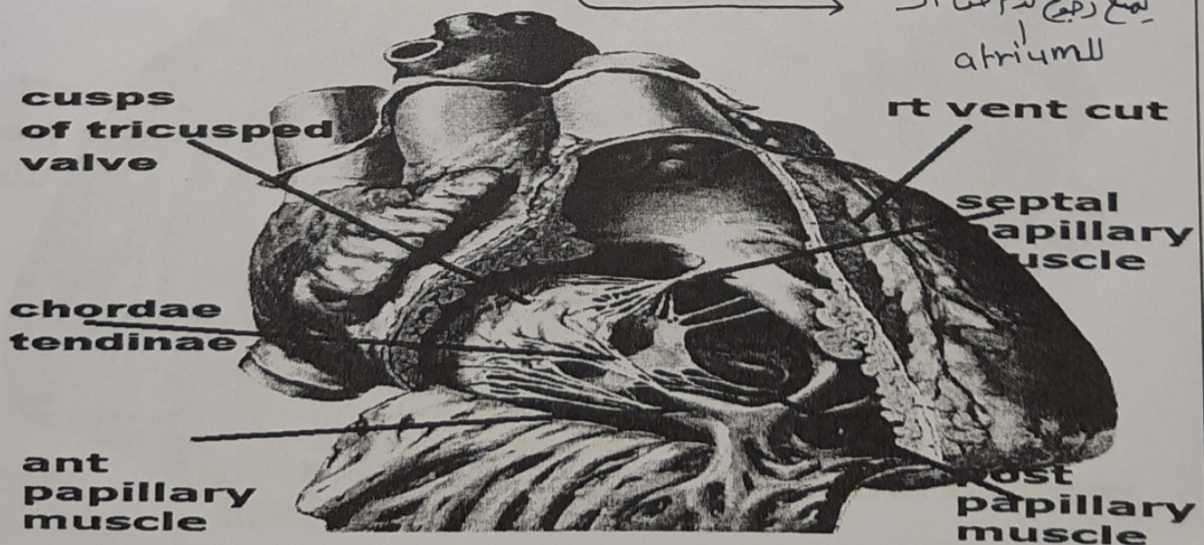
يعني دائماً موجودة

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

cusps function:- prevent valve regurge

الـ ventricle
 يمنع رجيع الدم من الـ atrium للـ



کل ما قل حجم بنیادی

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.

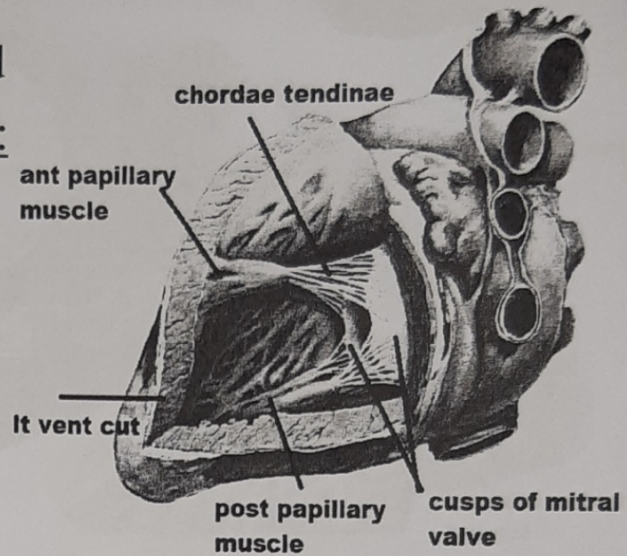
shape:- larger than that of rt vent. , chordae tendinae are thicker & fewer, attach to margins & ventricular surface of both cusps of the mitral valve

3- has no moderator band

C-smooth(outflow)part:

= aortic vestibule

بترتیب
بیشتر
2cuspid



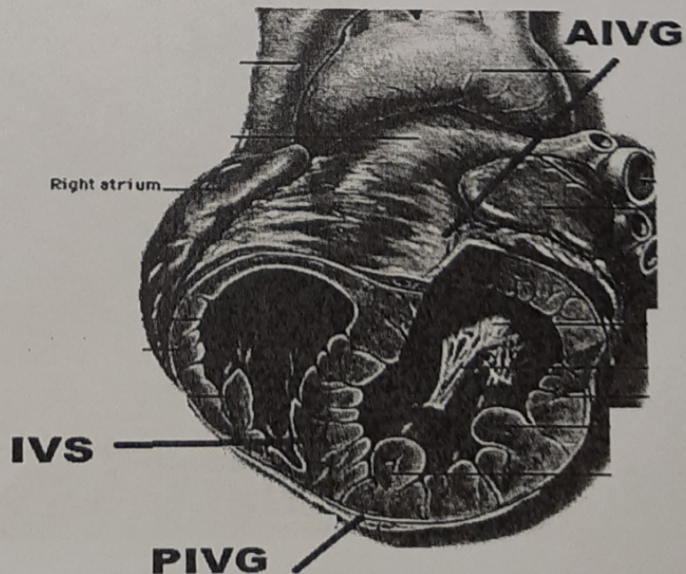
INTERVENTRICULAR SEPTUM

-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

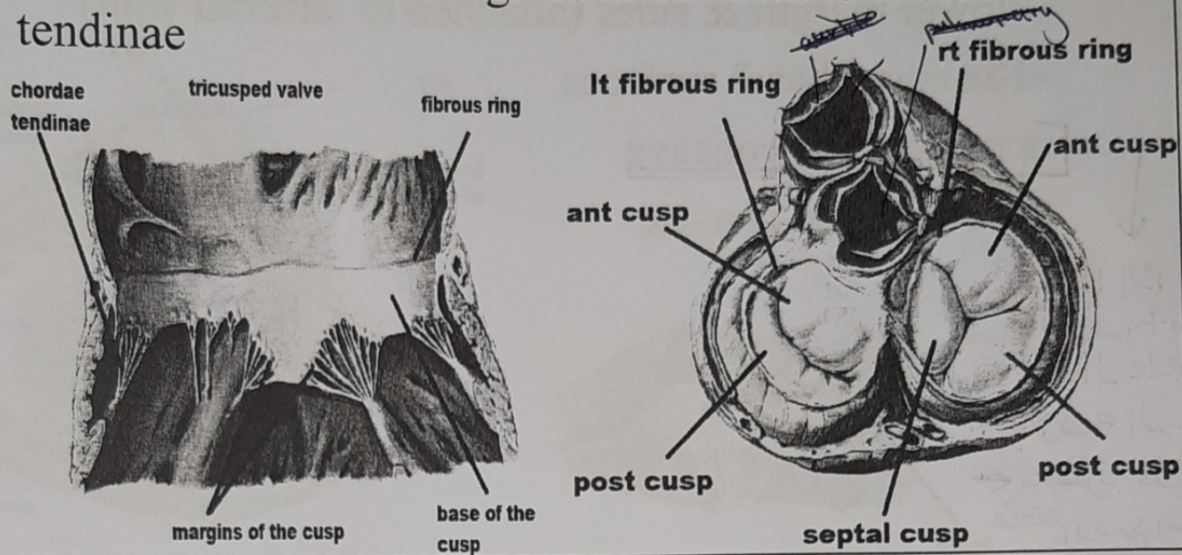
-Consists of 2 parts (Lower muscular & upper membranous parts)



ATRIOVENTRICULAR VALVES

Tricuspid valve → between Rt atrium and Rt ventricle

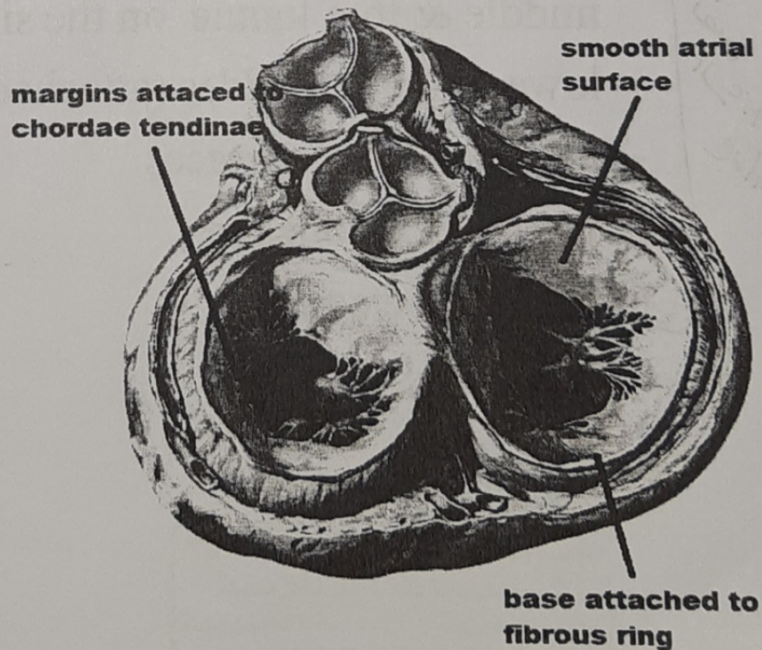
- Formed of 3 cusps **ant, post & septal**
- each cusp is **triangular** has a **base** that attached to **fibrous ring & margin** that attach to **chordae tendinae**
- The cusps has 2 surfaces; **Smooth atrial surface & rough ventricular surface** as it gives attachment to chordae tendinae



ATRIOVENTRICULAR VALVES

mitral valve → between left atrium and left ventricle

- 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

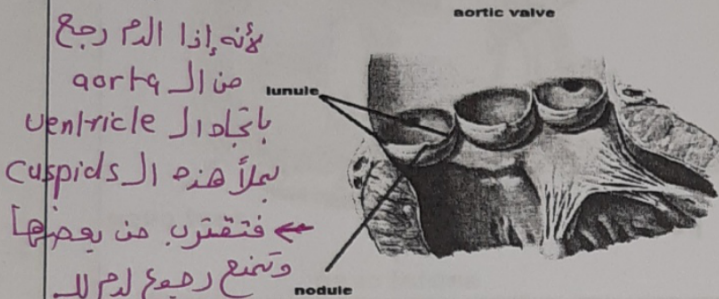
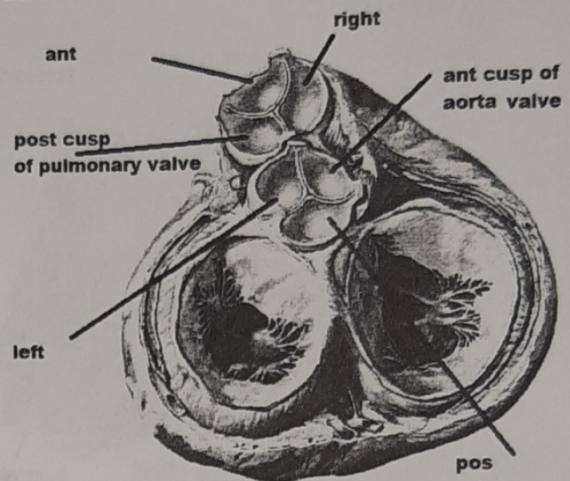


SEMILUNAR VALVES

aortic valve → between left ventricle and Aorta

- 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



ventricle

SEMILUNAR VALVES

pulmonary valve : between Rt ventricle and Pulmonary artery

- 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

نضى
الى
aortic
valve