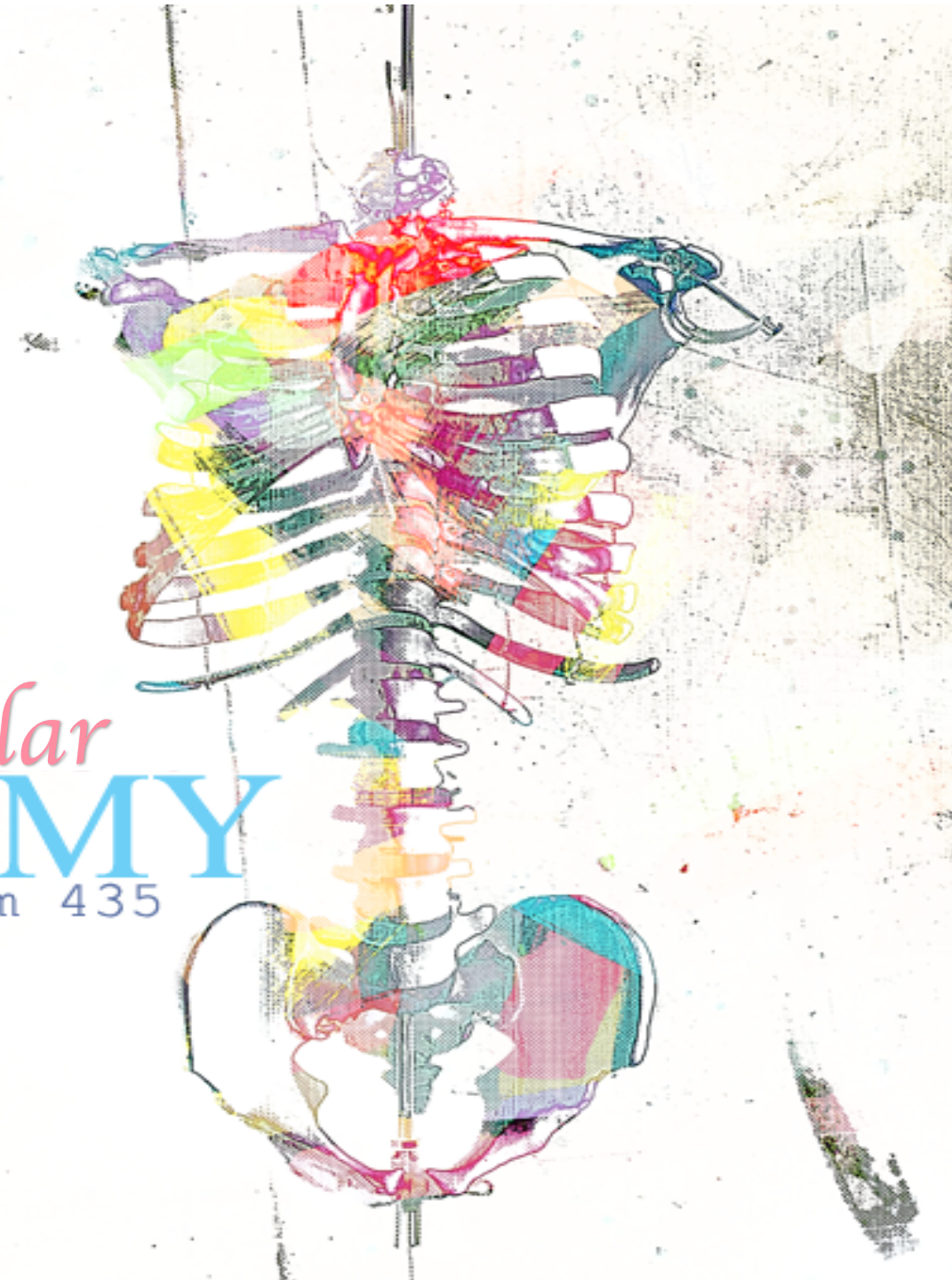




# Cardiovascular ANATOMY

team 435



COLORCODES

- IMPORTANT NOTES
- EXTRA NOTES
- DEFINITION

# Coronary sinus:

LOCATION :	It lies in the Posterior part of the AV groove.
FUNCTION :	Drains most of the Venous Blood of the heart.
ORIGIN :	It is the direct continuation of the <u>Great Cardiac Vein</u> .
<b>Tributaries:</b>	<i>(3) Cardiac Veins:</i> A. Great. B. Middle. C. Small. <i>Oblique vein of left atrium (vein of Marshall).</i>
Termination:	<i>It empties into Right Atrium.</i> Its opening is inferior & to the left of the IVC opening. It is guarded by a valve.

## Veins Draining outside Coronary Sinus :

<b>1. Anterior cardiac veins:</b>	<i>Open directly into the Right Atrium.</i>
<b>2. Venae Cordis minime (small cardiac veins):</b>	<i>Open into the heart chambers.</i>



	Right coronary artery	Left coronary artery
Arise from	anterior aortic sinus	Left posterior aortic sinus
Descends in	Right AV groove (between R auricle + pulmonary trunk )	Between left auricle + pulmonary trunk
Branches	<ul style="list-style-type: none"> <li>✓ Right conus</li> <li>✓ Anterior v branches</li> <li>✓ Posterior n branches</li> <li>✓ Marginal artery( with small cardiac vein)</li> <li>✓ Atrial branches</li> <li>✓ Artery of SA node</li> <li>✓ Posterior IV artery( with middle cardiac vein)</li> </ul>	<ul style="list-style-type: none"> <li>✓ anterior IV artery( great cardiac vein) :</li> <li>1- left conus</li> <li>2- anterior + posterior V branches</li> <li>3- atrial branches</li> <li>4- left diagonal artery</li> <li>✓ Circomflex artery</li> <li>✓ Left marginal artery</li> </ul>

# Variations of the Coronary Arteries

## Right Dominance:

In (90 %) of population , **the Posterior Interventricular artery** is a branch of the Right Coronary artery.

## Left Dominance:

In the rest (10%), **the Posterior Interventricular artery** arises from the Circumflex branch of the Left Coronary Artery.

## Arterial Supply of Conducting System

**SAN, AVN & AVB**

are usually supplied by Right coronary.

**Right Bundle Branch (RBB) of (AVB)**

is supplied by Left coronary

▪ **LBB of (AVB)**

is supplied by **both Right and Left coronaries**



## Arterial Supply of Conducting System

<b>SAN, AVN &amp; AVB</b>	are usually supplied by <b><u>Right coronary.</u></b>
<b>Right Bundle Branch (RBB) of (AVB)</b>	is supplied by <b><u>Left coronary</u></b>
<b>▪LBB of (AVB)</b>	<b>is supplied by both Right and Left coronaries</b>

## Coronary Anastomosis :

- **In MOST of people, the terminal branches of the right and left coronaries anastomose in the posterior part of the IV groove.**
- **However this anastomoses is not large enough to provide adequate blood supply in case of coronary occlusion, so the type of arteries is (**Functional End arteries**)**



# Summary

## Arterial supply

### Right Coronary artery (anterior aortic sinus)

Right Conus

Anterior ventricular branches

Marginal artery

(largest branch)

(accompanied by the Small Cardiac vein).

Atrial branches

Artery of the Sinuatrial Node

Posterior ventricular branches

Posterior Interventricular artery

(accompanied by Middle Cardiac vein)

### Left Coronary artery (larger) (left posterior aortic sinus)

Circumflex Artery

Left Marginal artery

It's considered as  
Circumflex Artery  
branch

Anterior Interventricular

(accompanied by the Great cardiac vein)

Left conus

Anterior ventricular and Posterior ventricular

Atrial branches

Left diagonal artery

Anterior Interventricular

Q1: Where does the coronary artery locate?

A- in the posterior groove of the AV node

B- in the anterior groove of the AV node

C- in the posterior groove of the SA node

D- in the anterior groove of the SA node

Q2: All of the following are branches of the right coronary artery except?

A- Atrial branch

B- posterior ventricular branch

C- Anterior interventricular artery

D- sinuatrial node artery

Q3- Which one of the arteries is accompanied with the Great cardiac vein?

A- Marginal artery

B- sinuatrial artery

C- Posterior interventricular

D- Anterior interventricular

Answers:  
Q1: A  
Q2: C  
Q3: D

Q4: The vein of Marshall is oblique in the:

A- Right atrium

B- Left atrium

C- right ventricular

D- left ventricular

Q5: All the following are branch of the left coronary artery except:

A- right conus artery

B- Left conus artery

C- atrial branch

D- posterior ventricular branch

Answers:  
Q4: B  
Q5: A



هذا العمل إجتهد من طلاب و طالبات  
إن أصبنا فمن الله وإن أخطأنا فمن أنفسنا و من الشيطان

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