Histology Practical Revision

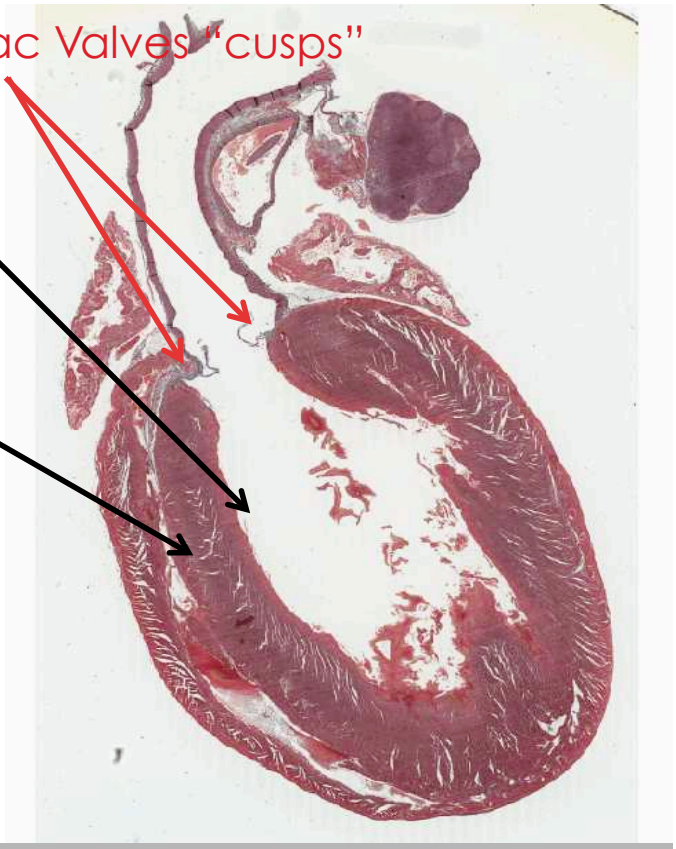
Done By:
Ouf al Oofy
Edited & Revised by:
Amal Afrah

For any correction, suggestion or any useful information do not hesitate to contact us: **Histology434@gmail.com**

Heart Wall

Features

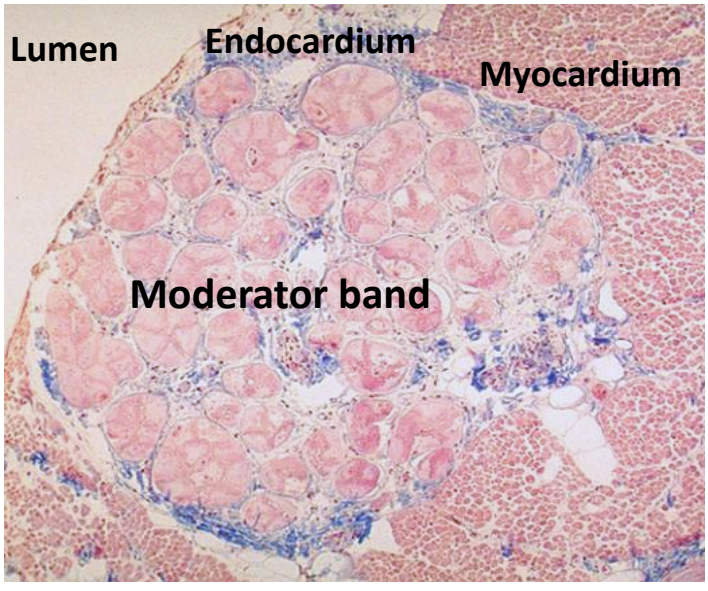
- ✓ Endocardium (most inner) (Endothelium: simple squamous epithelium).
- ✓ Myocardium "Middle Layer"
- ✓ Epicardium (most outer) Mesothelium: simple squamous epithelium).



Moderator Band

Features:

- ✓ Present in right ventricle.
- ✓ Purkinje fibers .



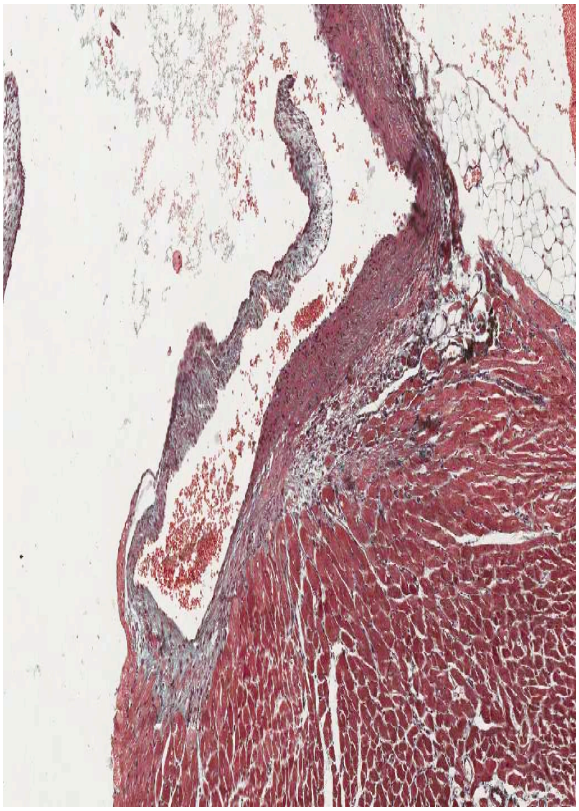
Cardiac Valves

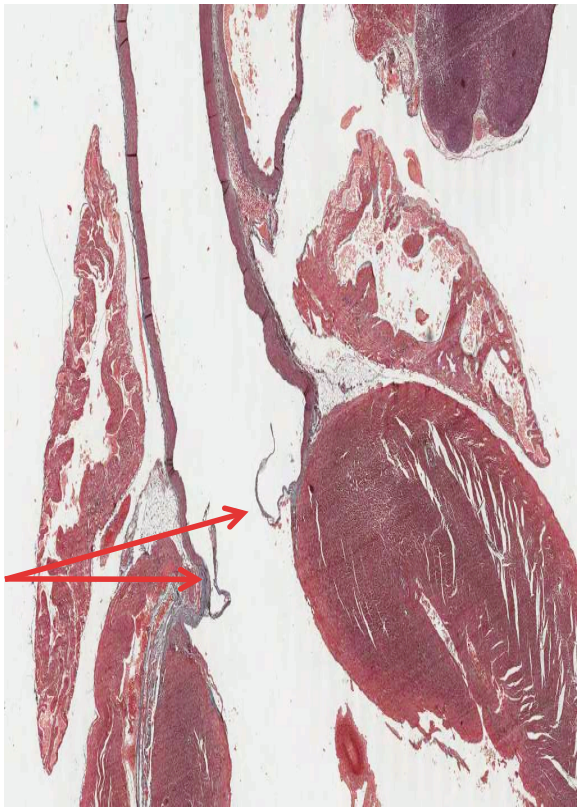
Each cusp of heart valve is formed of :

Core of Dense irregular C.T, this core is covered by: **Endothelium**

Features:

- Avascular.
- Blood capillaries can be found only in the base "root" of the cusp.



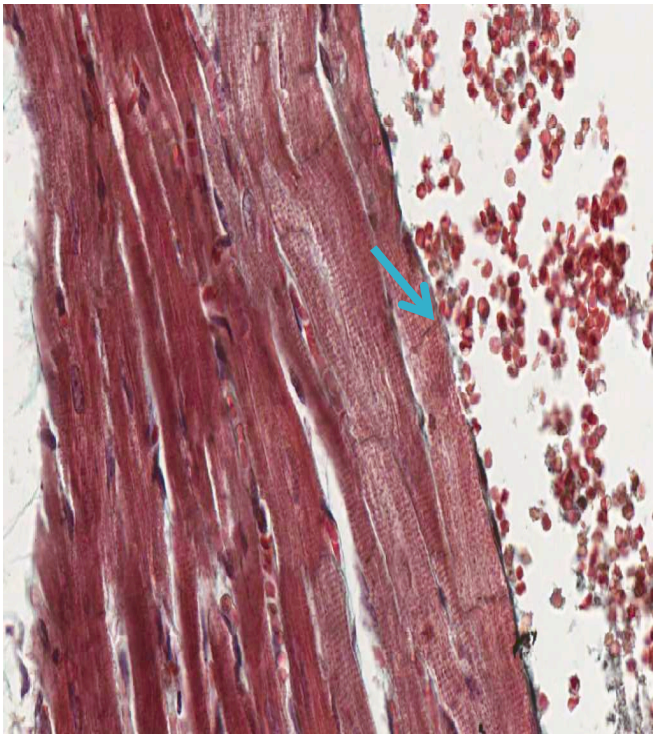


Endocardium & Myocardium

Endocardium

Features

- ✓ Endothelium.
- ✓ Subendothelial C.T.
- ✓ Dense C.T. layer.
- ✓ Subendocardial layer.



Myocardium

Features:

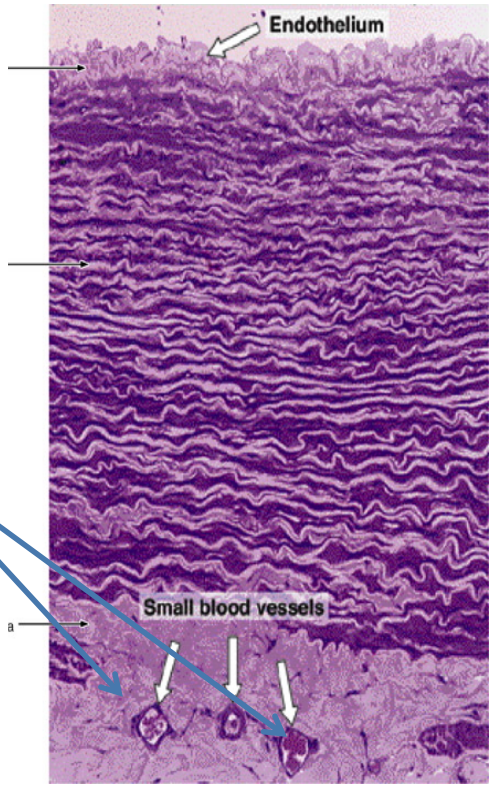
- ✓ Intercalated discs **(blue arrows).**
- ✓ Endomysium: loose C.T. **(Orange stars)**
- ✓ Nuclei of myocardial cells: Central and round nuclei. **(Black Circles)**

Elastic Artery

- General features of blood vessels, composed of 3 layers:

  1. Tunica intima 2. Tunica media 3.Tunica adventitia

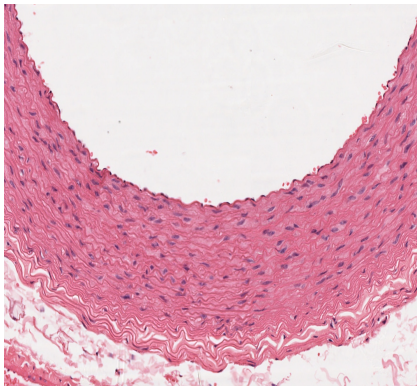
- **Features: "Elastic Artery"**



- ✓ Fenestrated elastic lamellae (membrane) in the media.
- ✓ Vasa vasorum in adventitia and outer part of media for blood supply).
- ✓ Endothelium.

- **Examples:**

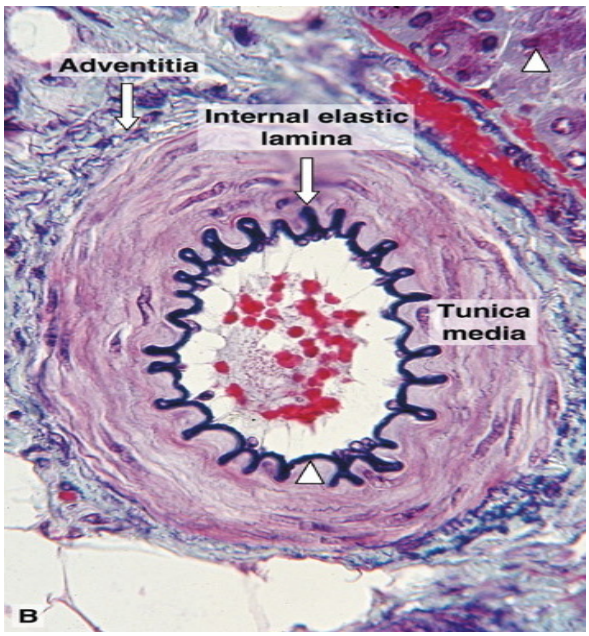
Aorta and Pulmonary Trunk



Medium-Sized Artery

- **Features:**

- ✓ Prominent internal elastic lamina.
- ✓ T. Media is rich in smooth muscle cells.
- ✓ T. Media is Thicker than T.Adventitia



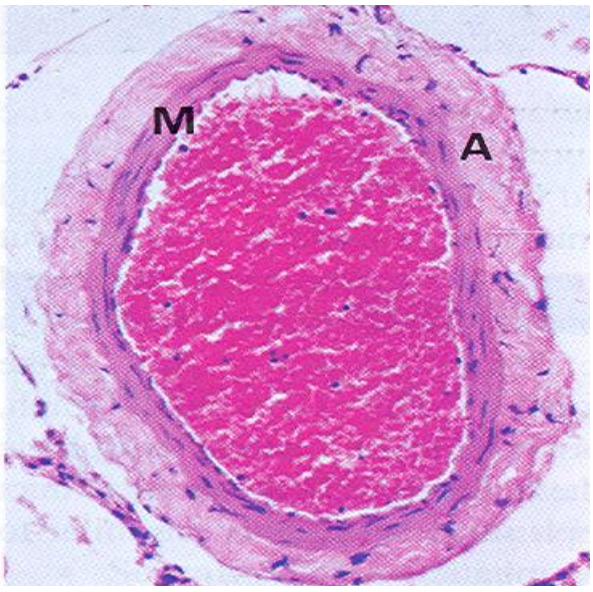
- **Examples:**

Brachial, Ulnar and Renal Artery

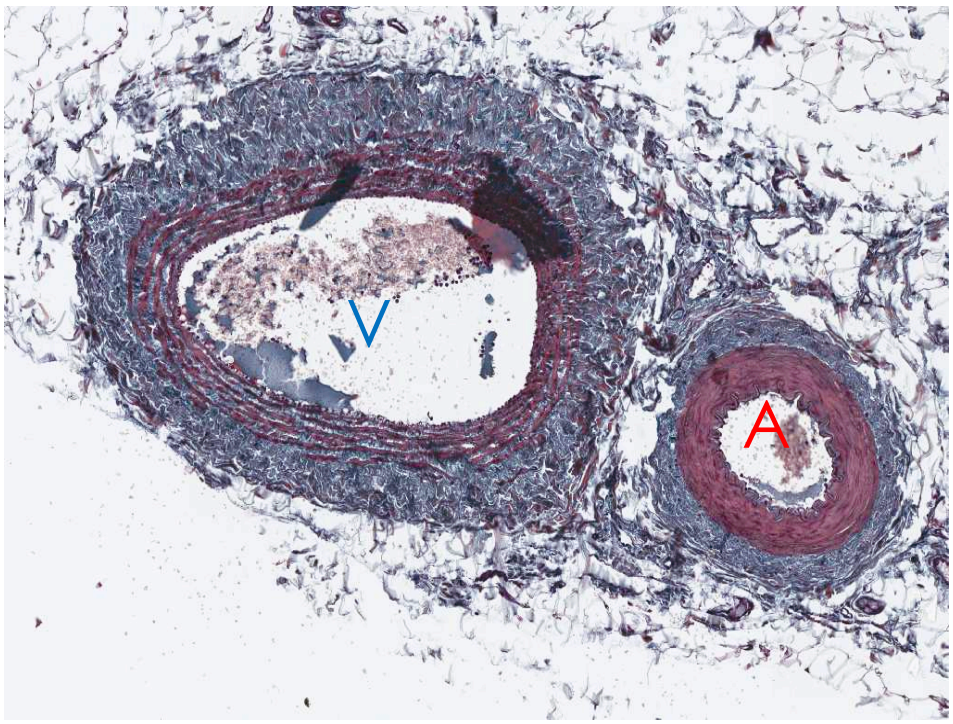
Medium-Sized Vein

- **Features:**

- ✓ **NO** internal elastic lamina.
- ✓ Type I & III Collagen fibers in T. Media.
- ✓ T. Media is Smaller than T. Adventitia.

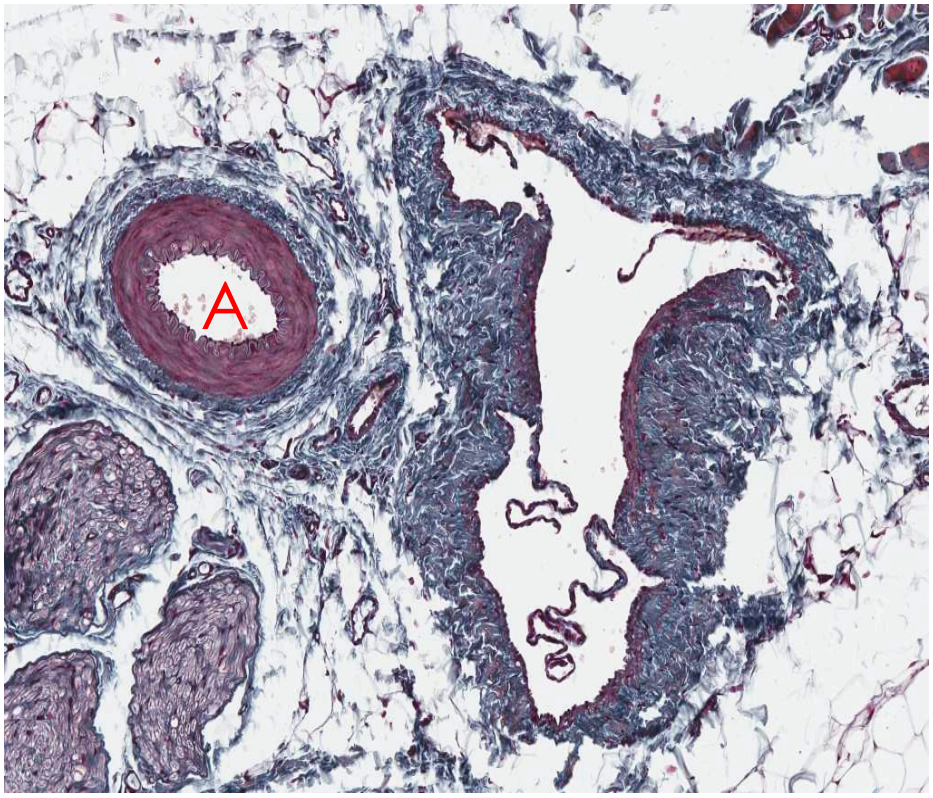


Comparison between Medium-Sized Artery & Vein



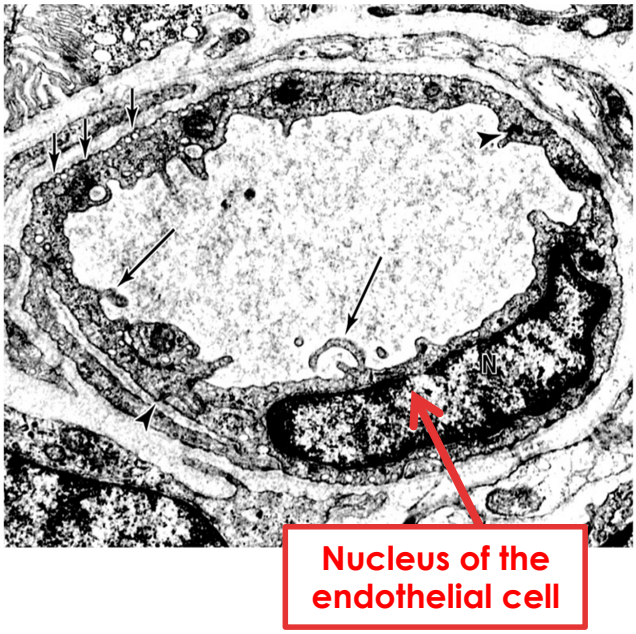
A : Artery

V : Vein



Blood Capillaries

Continuous Blood Capillary



- **Features:**

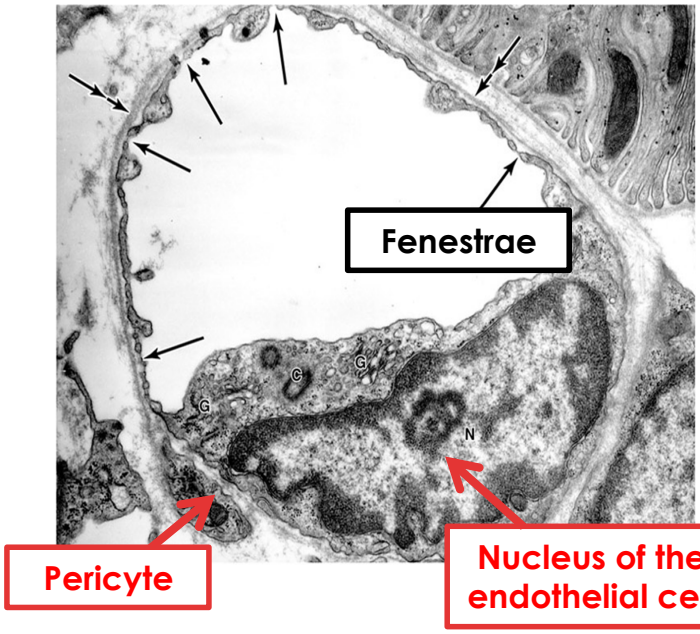
Continuous Blood Capillary no pores "fenestrae".

- **Distribution:**

✓ Muscle.

✓ Nervous Tissue.

Fenestrated Blood Capillary



- **Features:**

Fenestrated Blood capillary with diaphragm.

- **Distribution:**

✓ Intestine.

✓ Pancreas.

✓ Endocrine glands.