

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Note: In this lecture the doctor has started with the second (Anatomy) handout.

The heart is situated between the lungs in a cavity called: **Mediastinum**. Each lung is covered by two sacs: **Visceral plura** that is directly attached to the lung and **Parietal plura** that covers the thorax and in between them; **Plural cavity**.

These plural sacs are not connected with each other nor with the pericardium.

The middle mediastinum contains two important structures: The **Heart covered by the pericardium** and **Two phrenic nerves**.

The phrenic nerves are Mixed nerves containing: sensory, motor and sympathetic. (SMS)

The posterior mediastinum contains: Descending Aorta, Two bronchi and **Esophagus passing behind the LEFT ATRIUM**. This is important clinically; when the left atrium enlarges, the patient will have Dysphagia.

The visceral layer of the serous pericardium called: Epicardium; is Insensitive to the pain (Supplied by Autonomic fibers).

The fibrous pericardium and parietal layer of serous pericardium are pain sensitive.

The Anginal pain is due to Myocytes and Blood vessels.

The pericardial cavity contains small amount of serous fluid facilitating the movement of heart within the pericardium.

Cardiac Tamponade: An accumulation of fluid within the pericardial cavity (pericardial effusion). It can be Acute; within few days **OR** Chronic; takes weeks.

The acute form will decrease the Stroke Volume (SV) and hence the cardiac out-put. But in the chronic form, the heart accommodates to that and will not decrease the SV and CO.

Between the two sinuses is the **Left Atrium**.

Principle: each atrium is **behind and above** the corresponding ventricle.

The **anterior interventricular groove** contains a branch from the **left coronary artery** called: **Left Anterior Descending (LAD)** and Great cardiac vein.

The posterior interventricular groove contains a branch from the **right coronary** artery called: Posterior (Or Inferior) interventricular artery and middle cardiac vein.

The posterior wall of the right atrium is formed by the interatrial septum. So the left atrium is found posterior and to the left from the right atrium.

Venae cordis minimae (The Basian Veins): small veins from the myocytes that open directly to the lumen of the heart.

Good Luck ☺

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