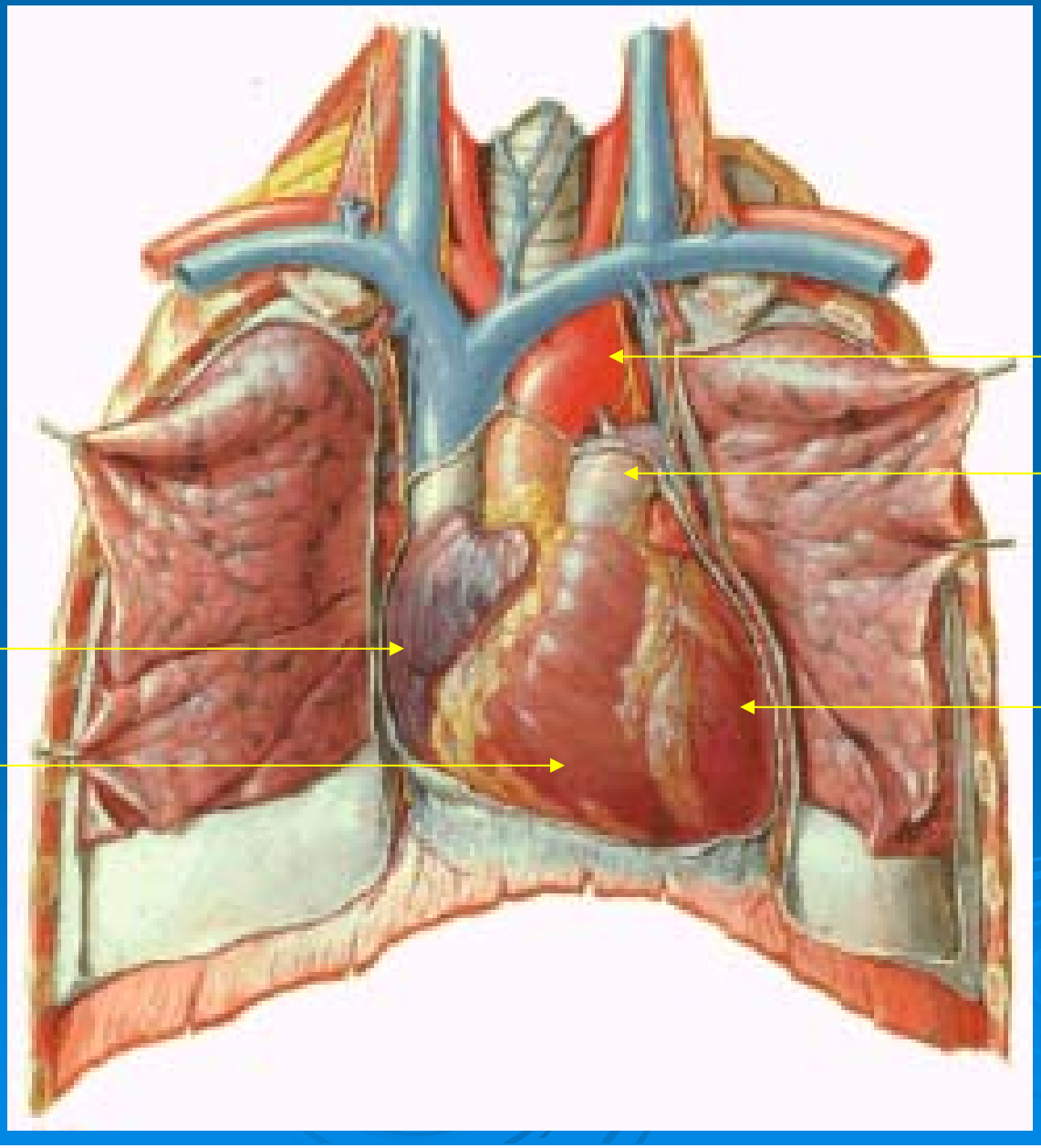
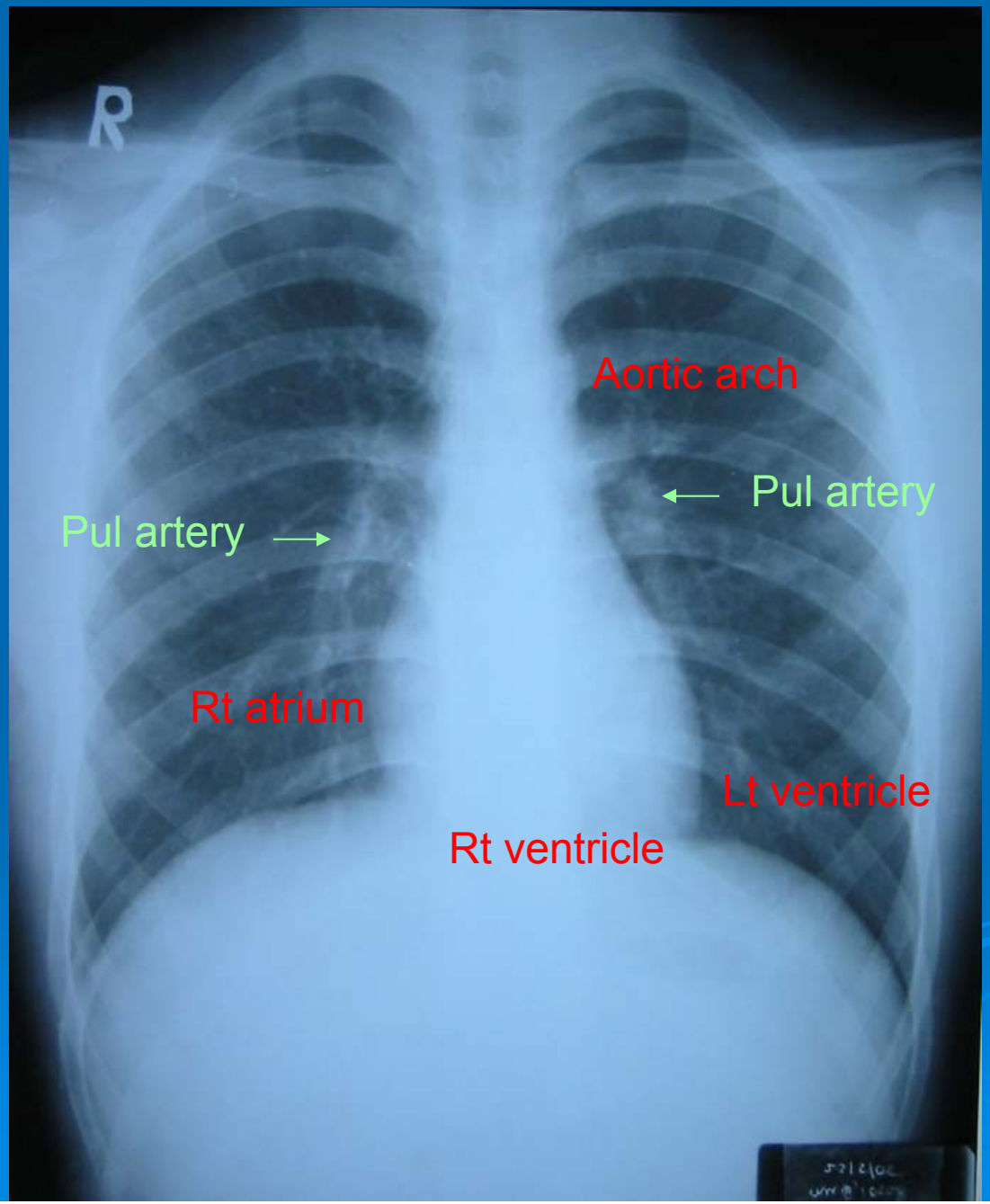
Cardiovascular System

Department of Radiology & Imaging

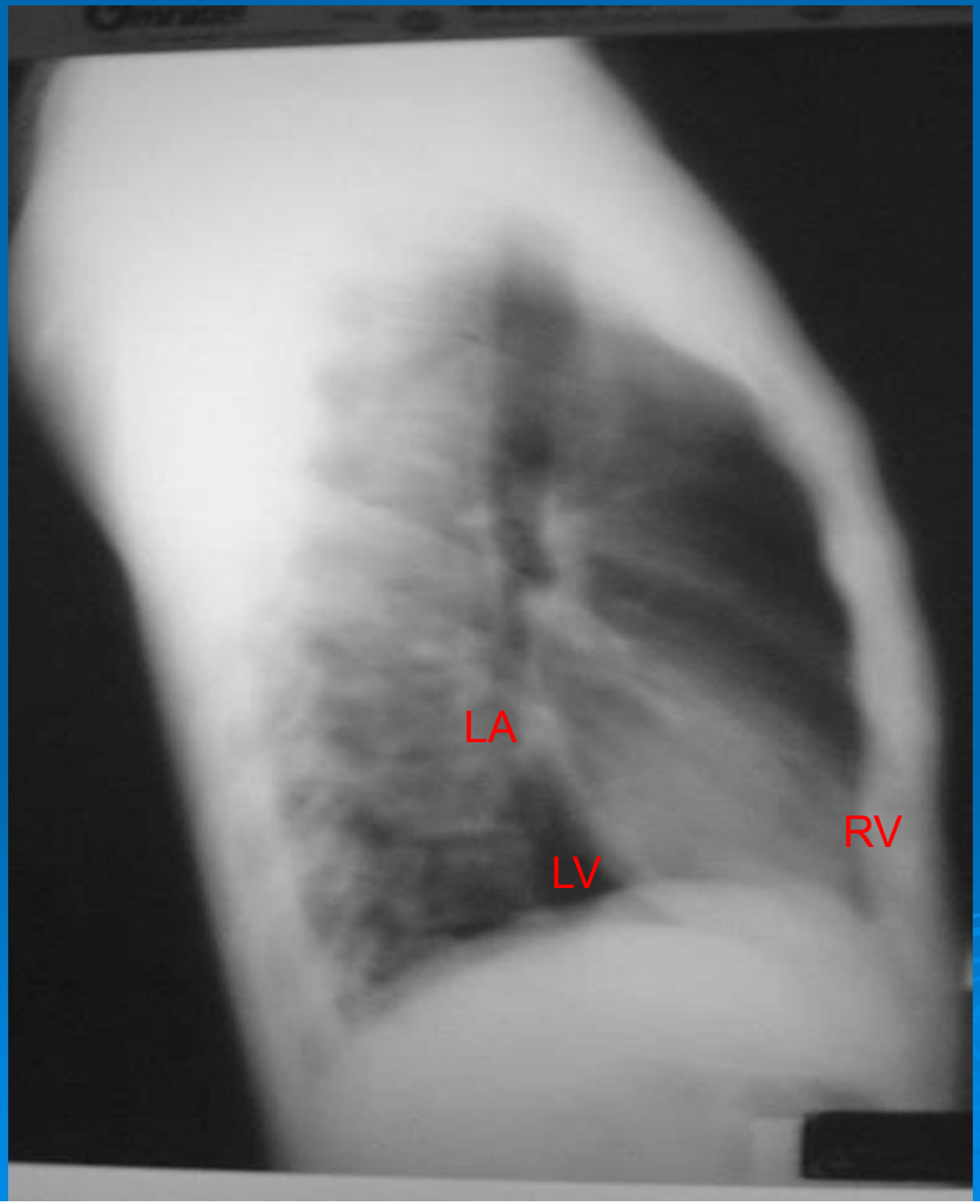
Heart-Anterior Exposure

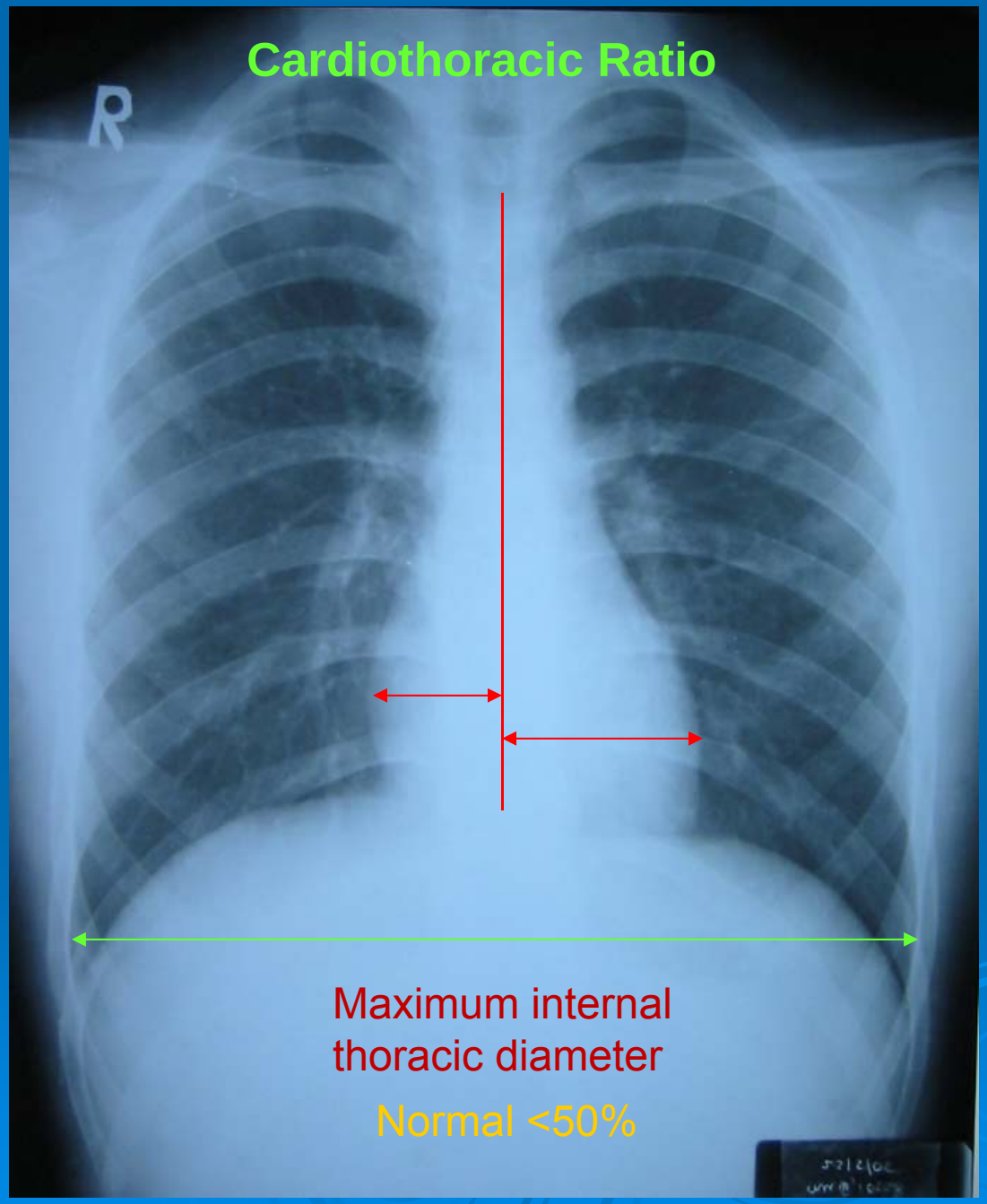


Viewing PA Film



Viewing Lateral Film




Cardiothoracic Ratio
R
Maximum internal
thoracic diameter
Normal <50%

Heart size & shape

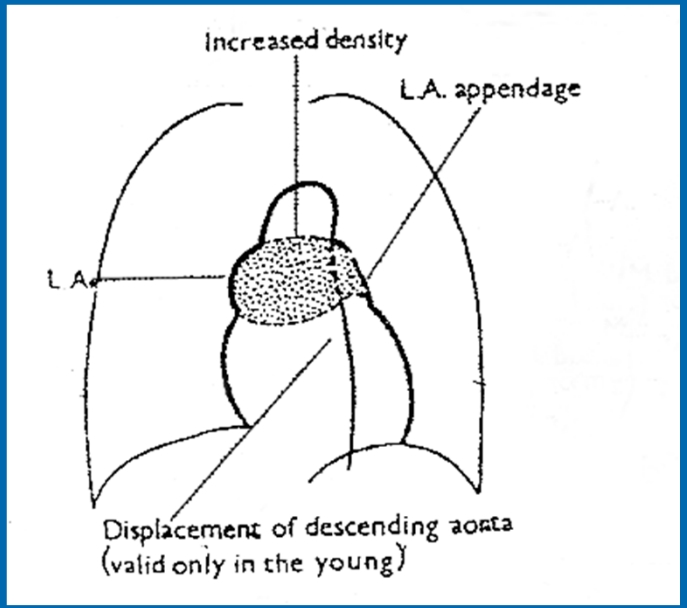
- CT Ratio

  percentage of heart size with respect to internal thoracic diameter

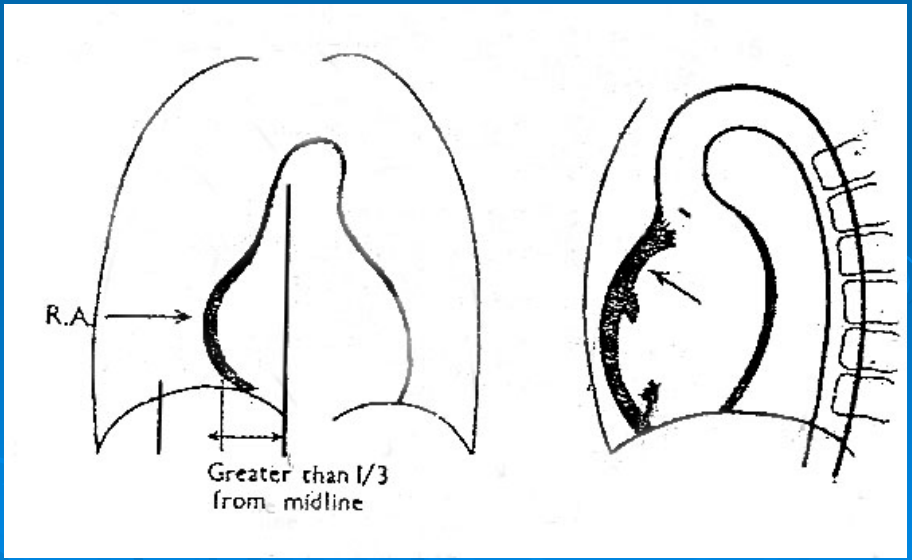
  maximum – 50%

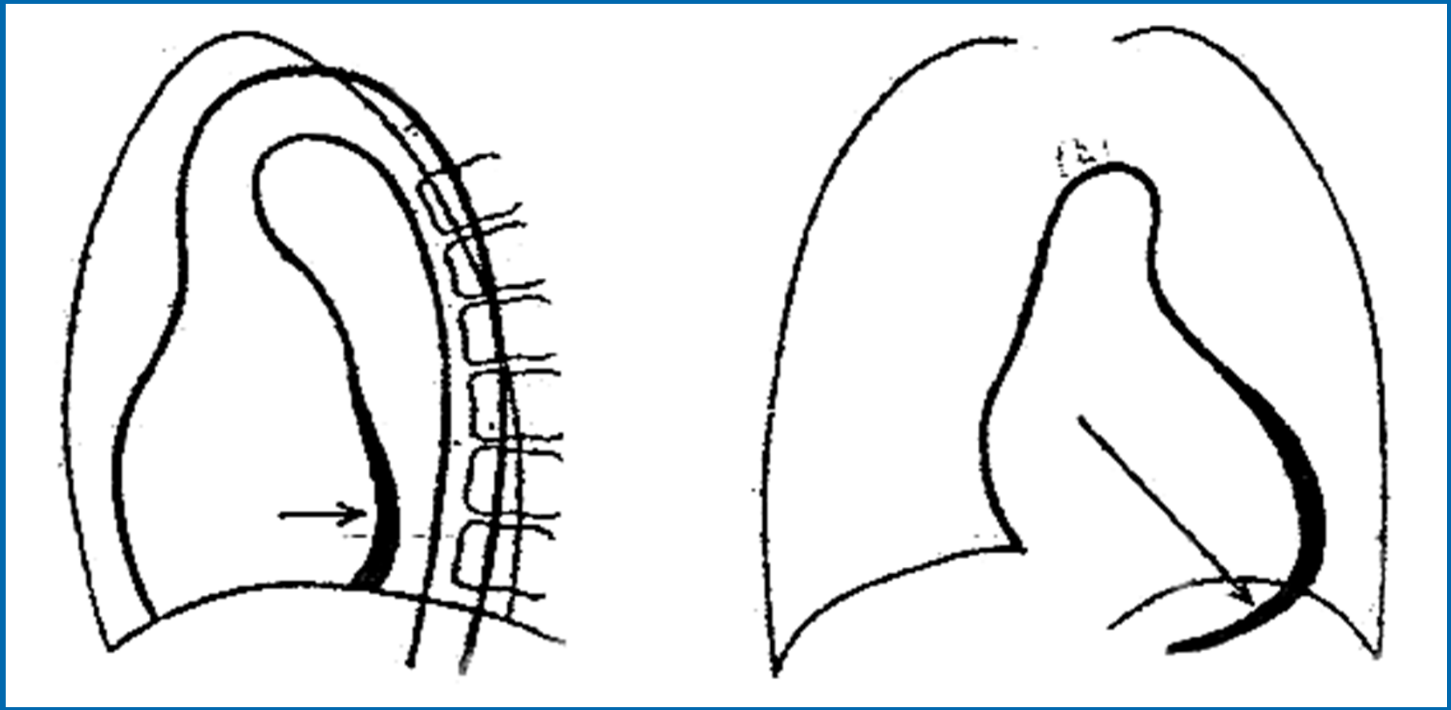
  increase in neonate & elderly

- LA enlargement
  - ✓ Double Rt Heart border
  - ✓ Elevation of the Lt main bronchus
  - ✓ Splaying of carina
  - ✓ Enlargement of Lt atrial appendage



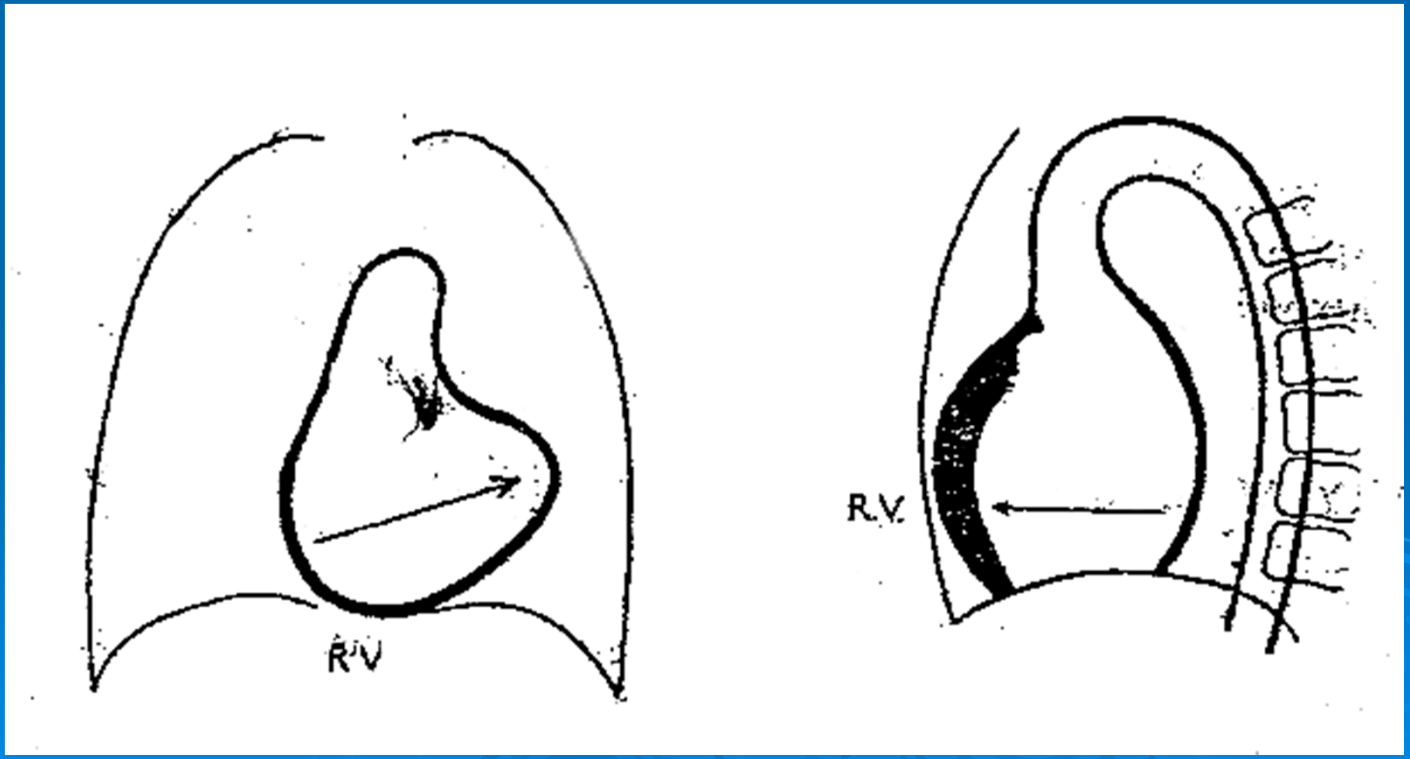
- RA enlargement
  - ✓ Lateral prominence of Rt heart border with an increase convexity

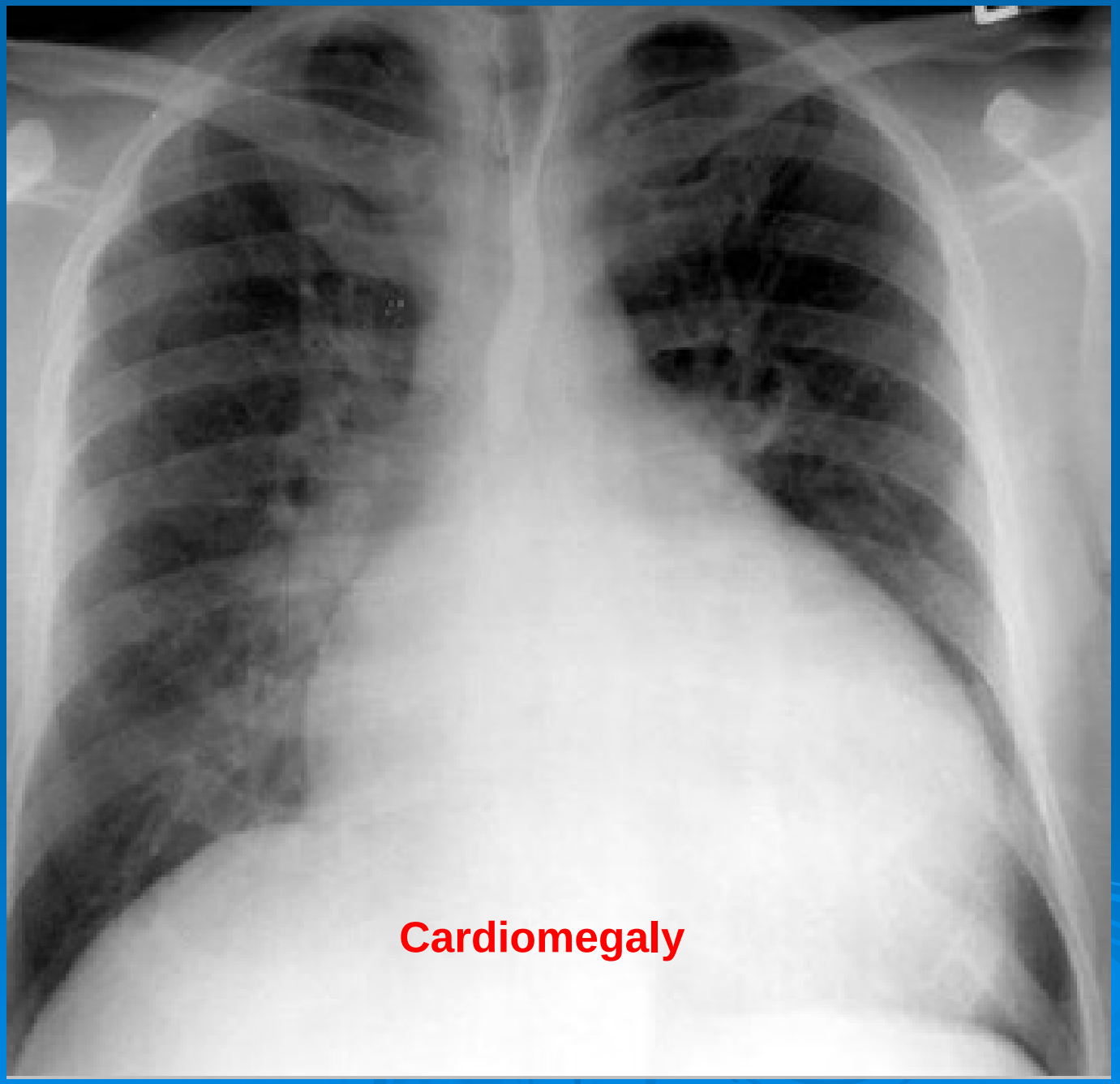




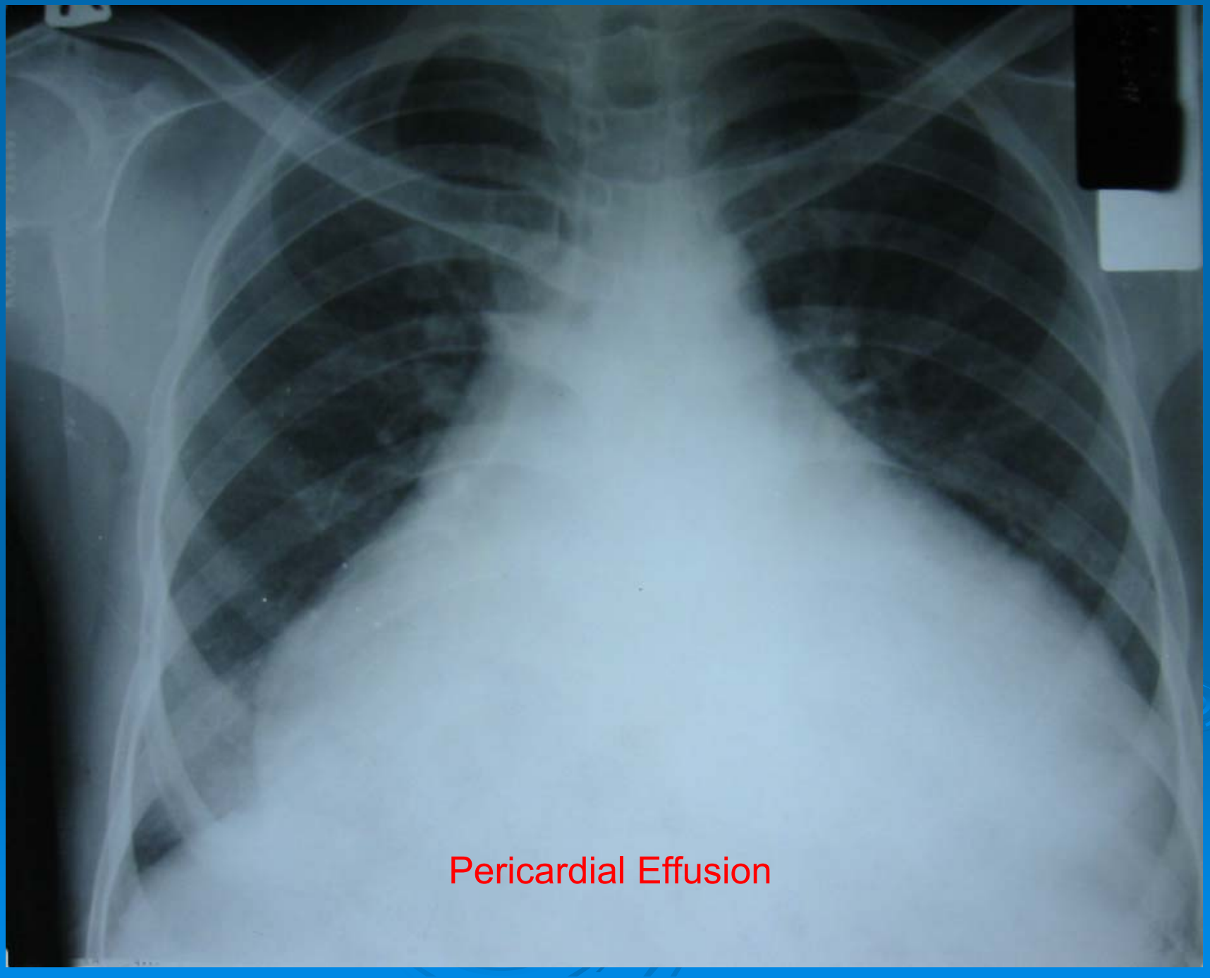
- LV enlargement
  - ✓Increase CT ratio
  - ✓Heart – enlarged laterally & inferiorly

- RV enlargement
  - ✓ Heart – enlarged laterally & upward

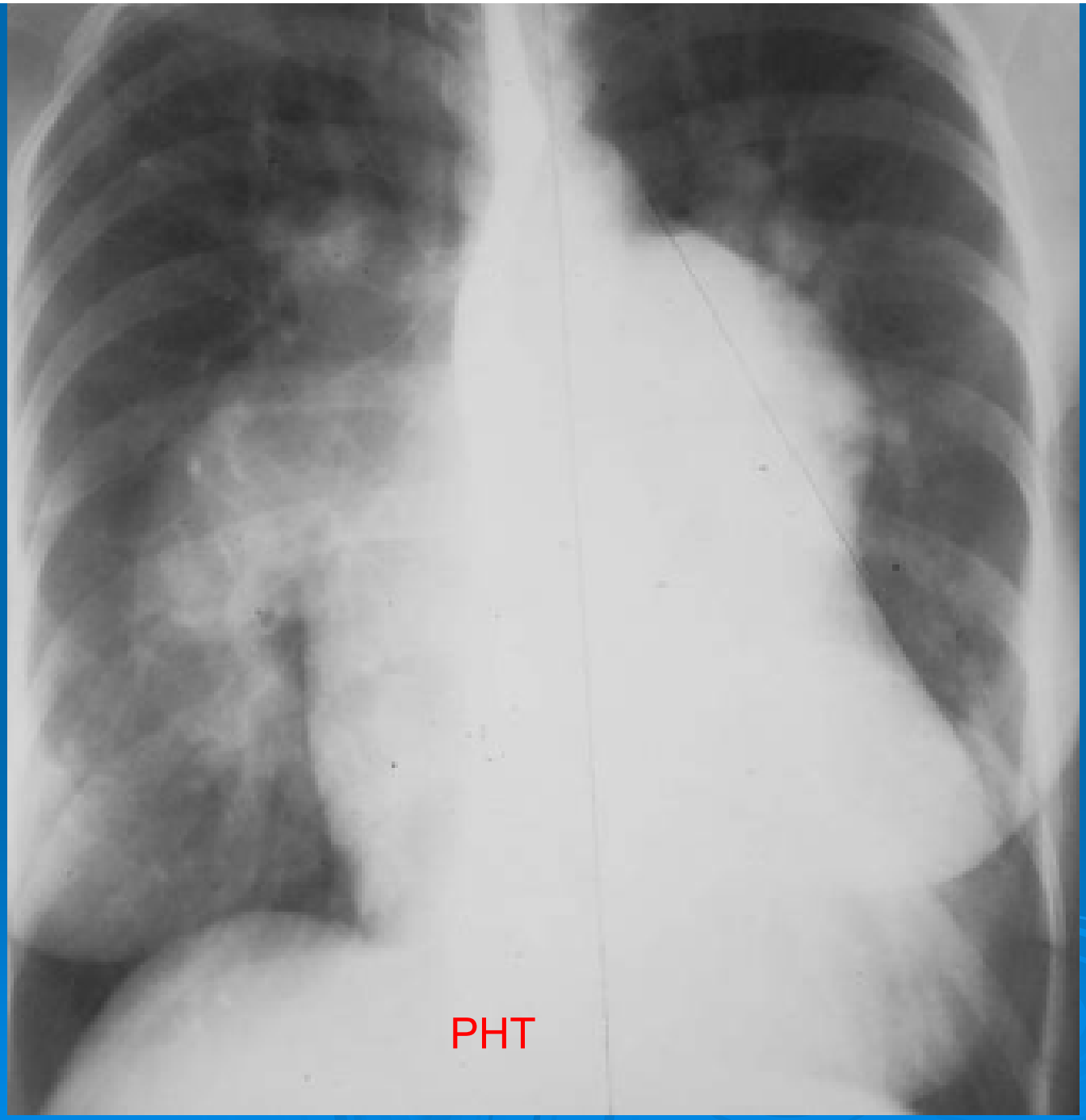


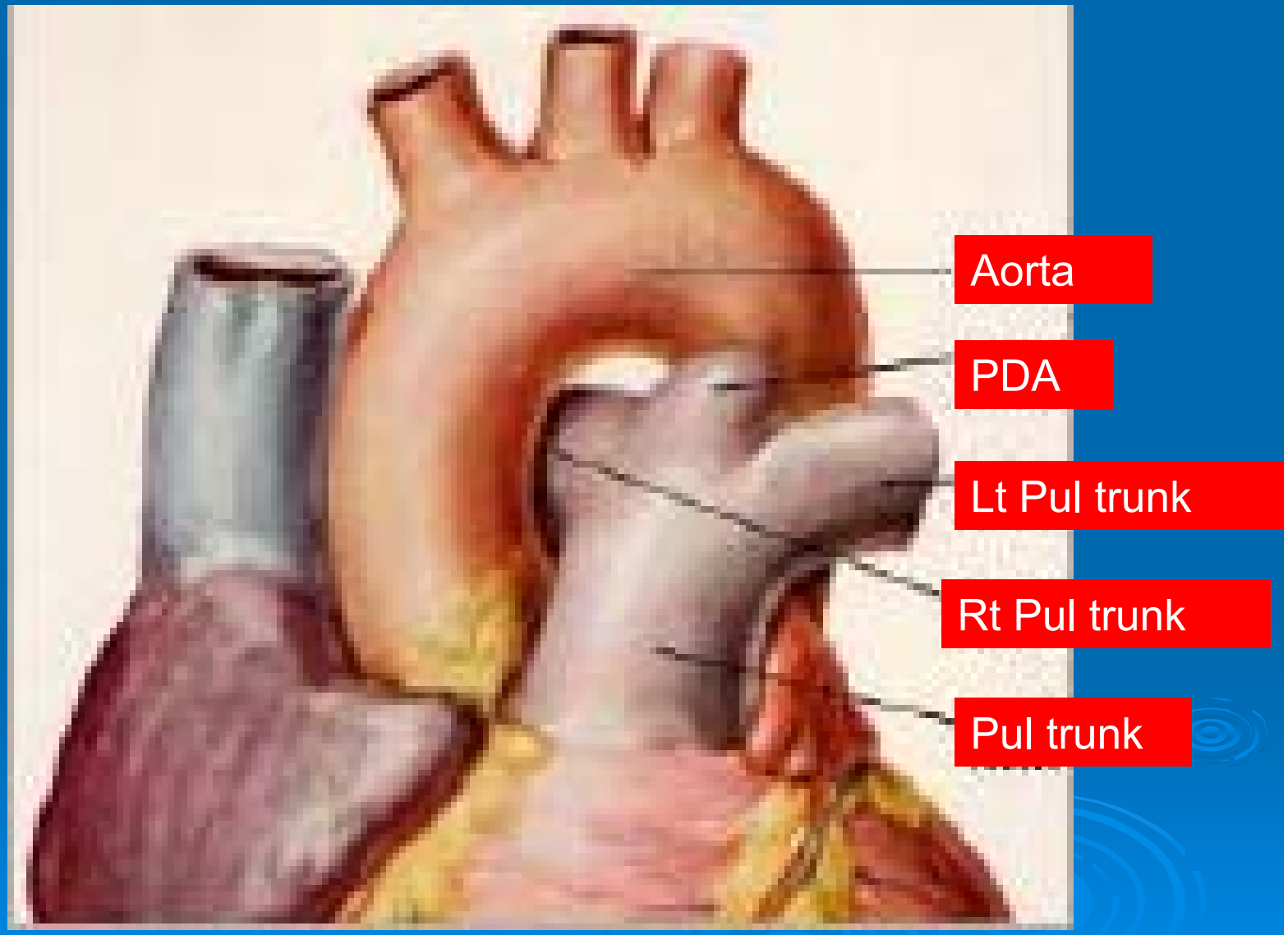


Cardiomegaly



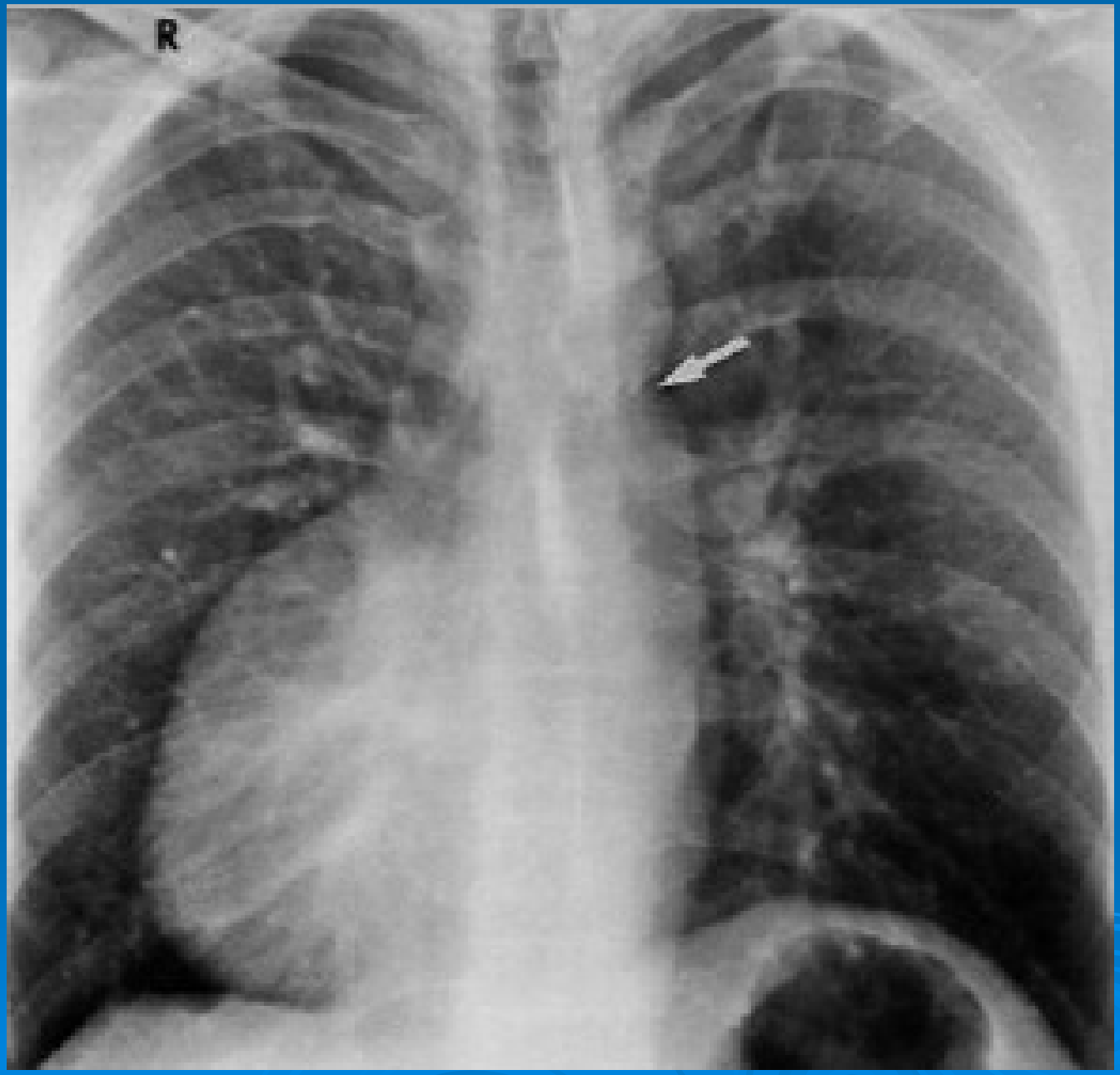
Pericardial Effusion


PHT

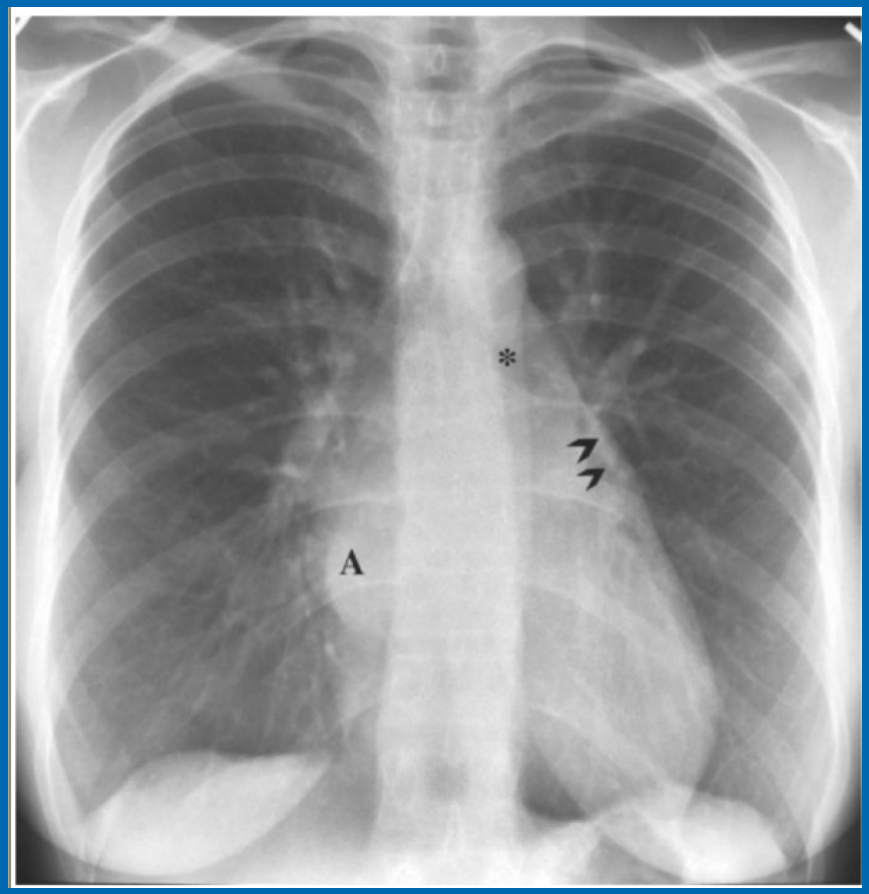

Aorta
PDA
Lt Pul trunk
Rt Pul trunk
Pul trunk

Tetralogy of Fallot Components

- VSD
- Pulmonic stenosis
- Overriding of the aorta
- Right ventricular hypertrophy

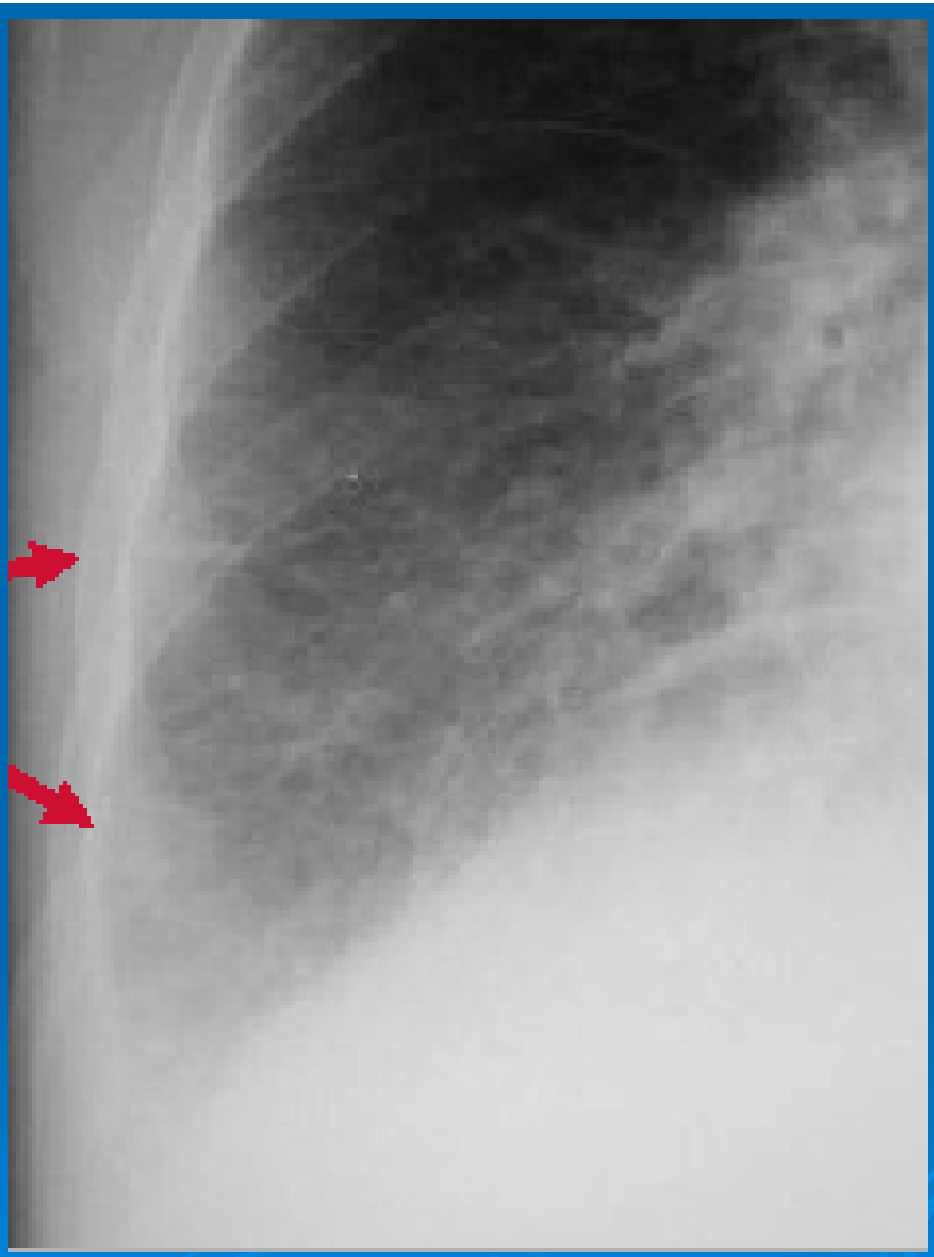


Situs Solitus with Dextrocardia

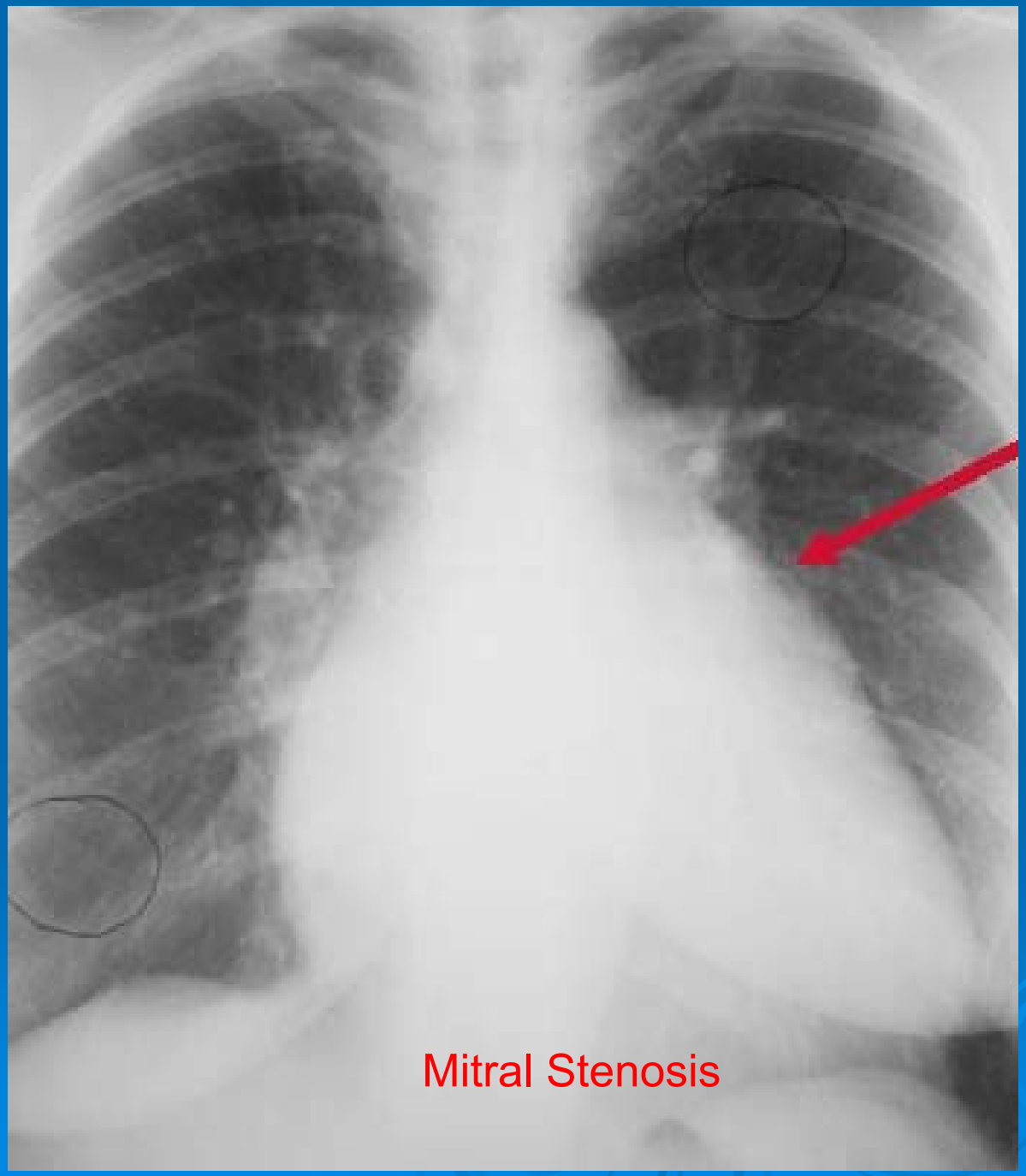


❖**Classical appearance of rheumatic mitral stenosis.** **PA view of the chest.**
❖**The heart size is normal.**
❖**The enlarged left atrium (A) displaces the left bronchus upwards (asterisk) and creates a right retrocardiac double density.**
❖**The left atrial appendage is enlarged (arrowheads).**
❖**There is severe pulmonary venous hypertension.**

Kerly B line

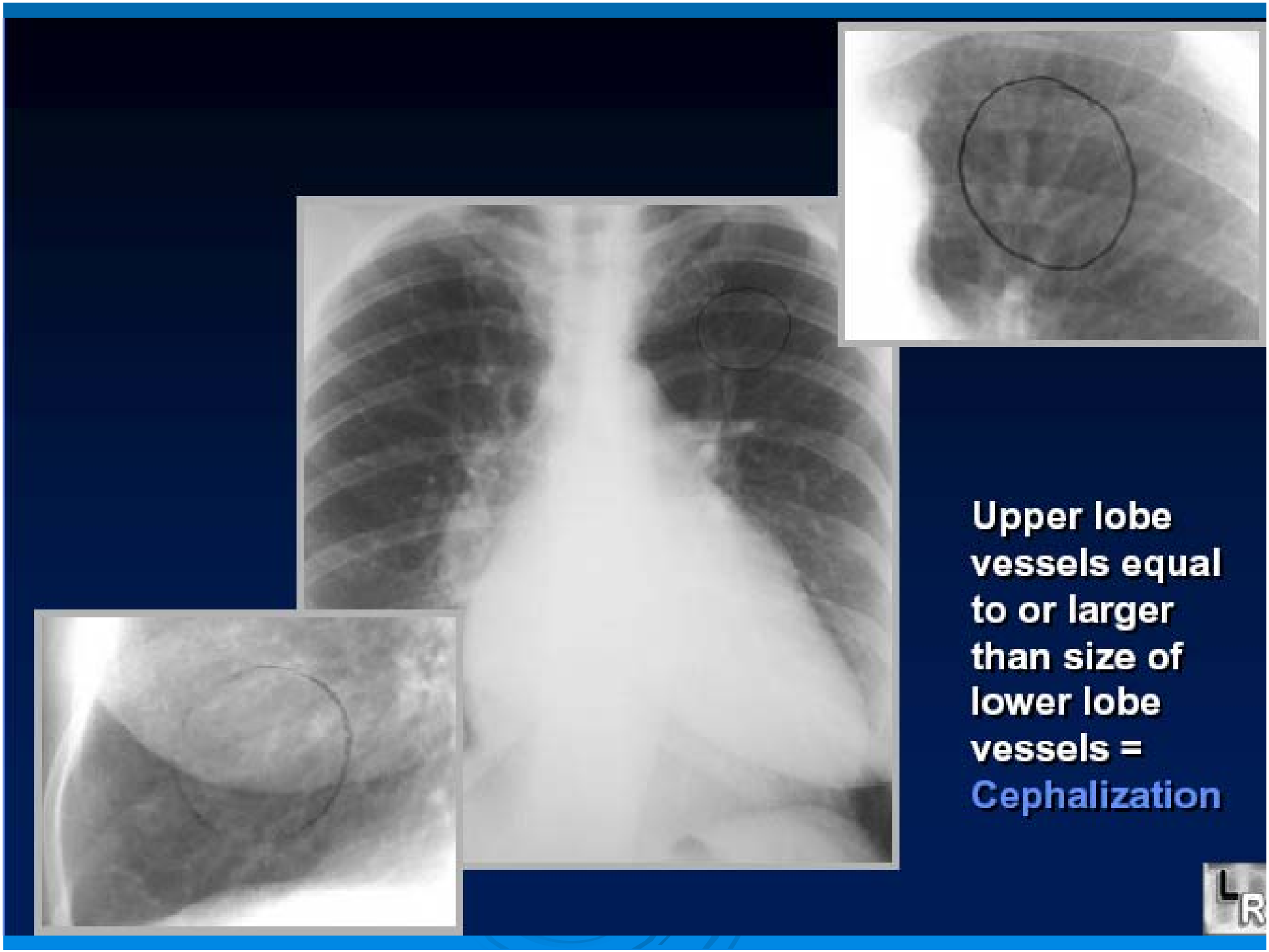


Kerley B Lines are short, white lines perpendicular to the pleural surface at the lung base.



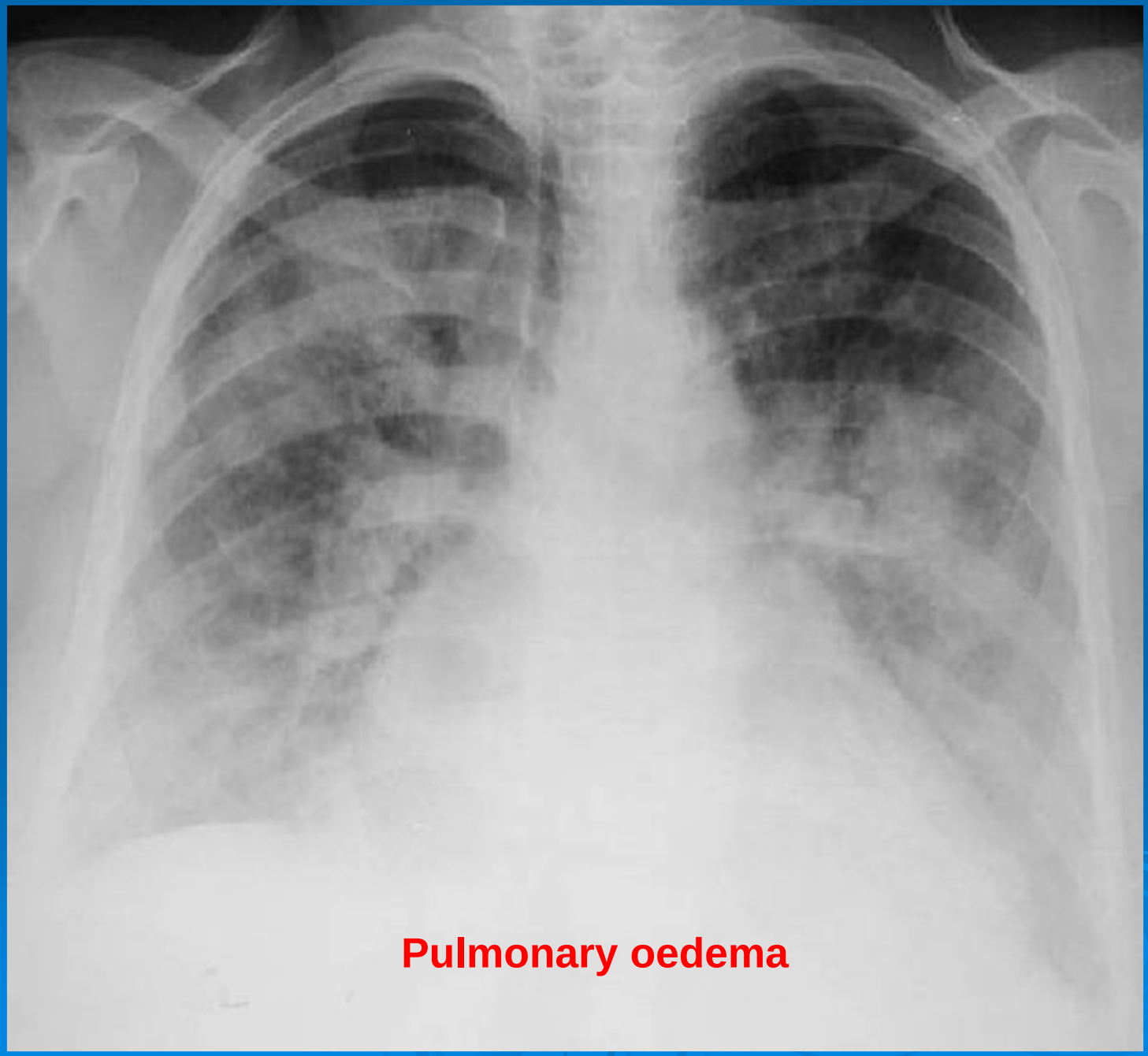
Convexity from enlarged left atrial appendage

Mitral Stenosis

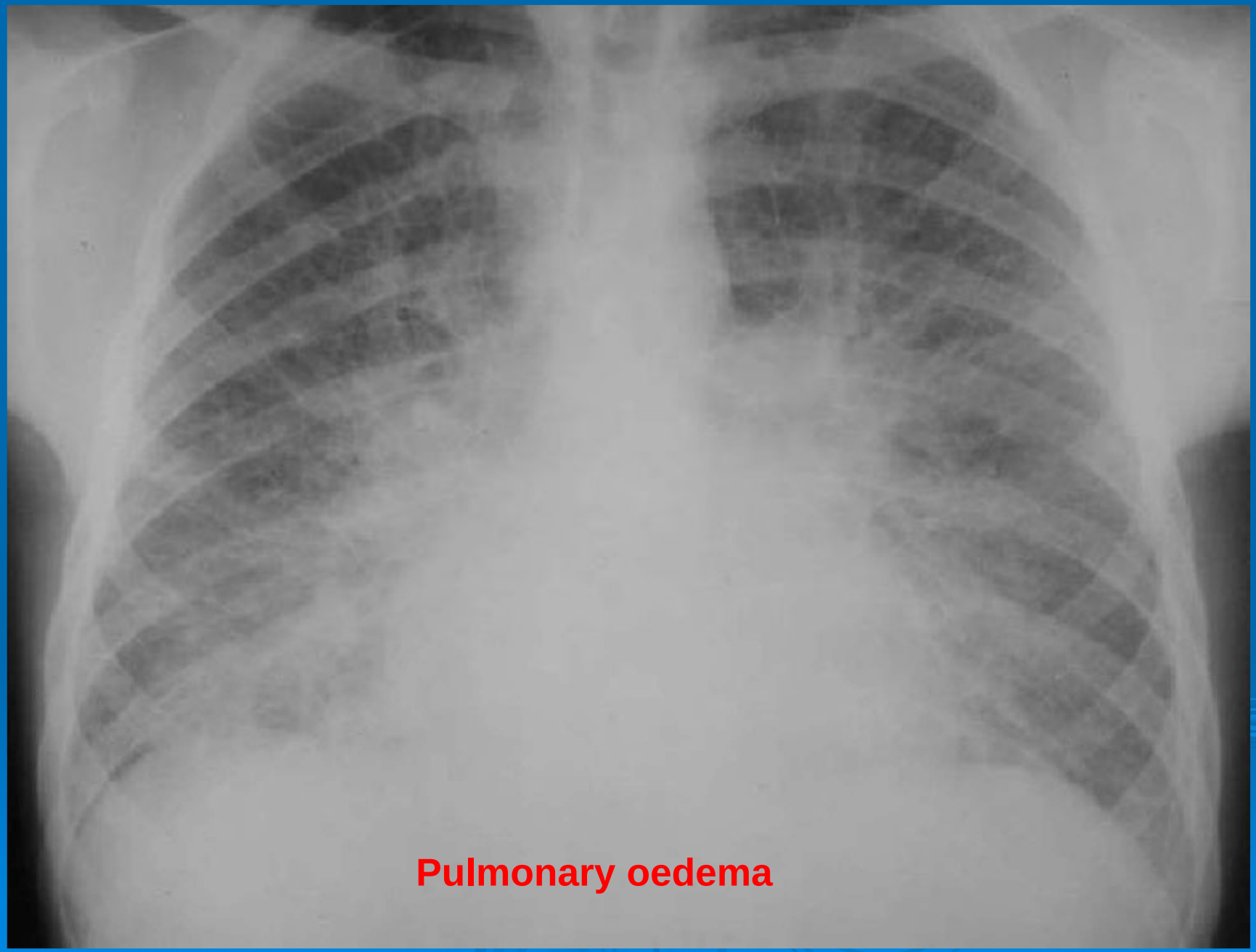

Upper lobe vessels equal to or larger than size of lower lobe vessels = Cephalization
L
R

Causes of ↑ Left Atrium

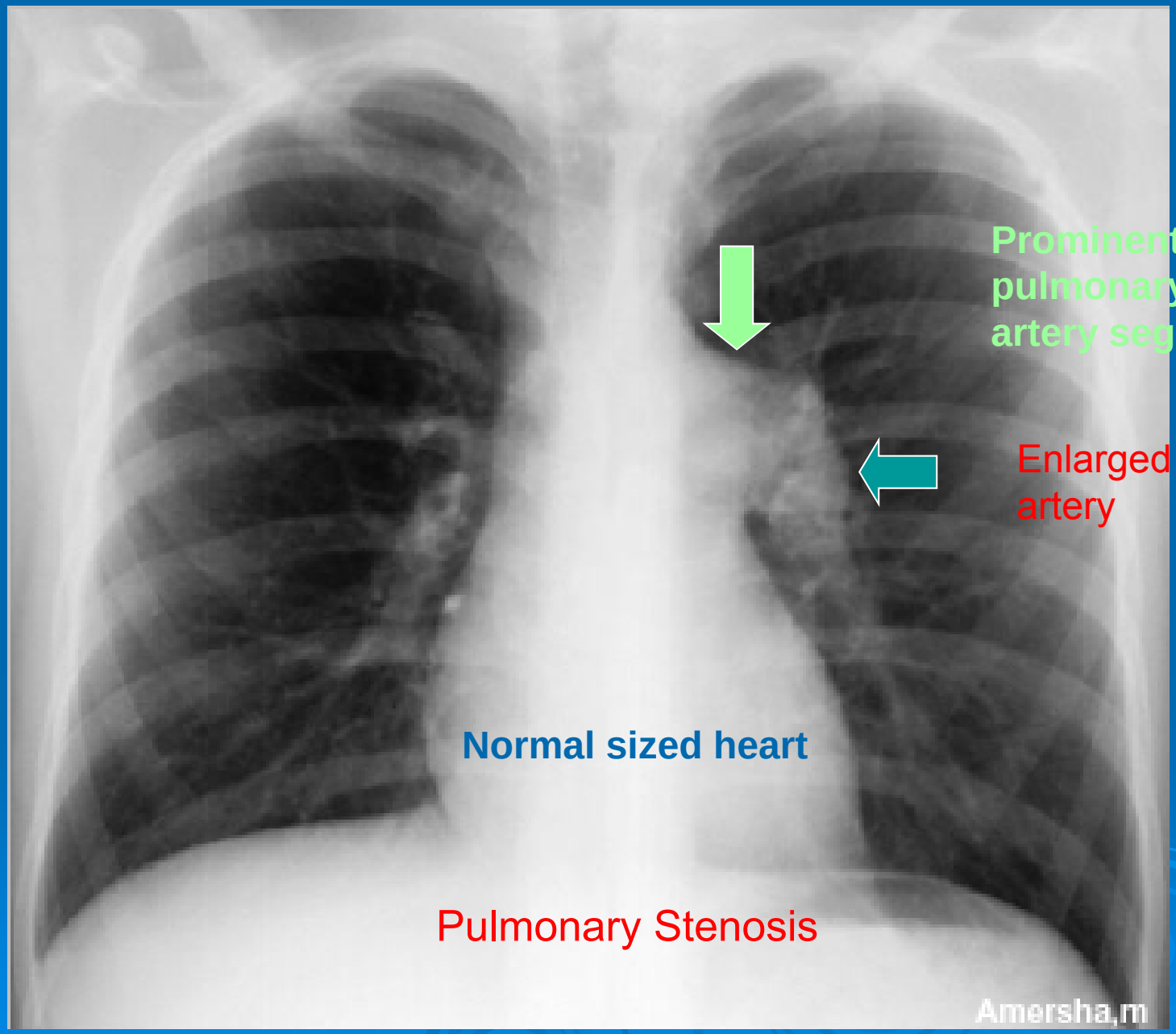
- 1. CHF
- 2. Mitral stenosis
- 3. Mitral regurgitation
- 4. Prolapsed mitral valve
- 5. Papillary muscle dysfunction
- 6. Left atrial myxoma



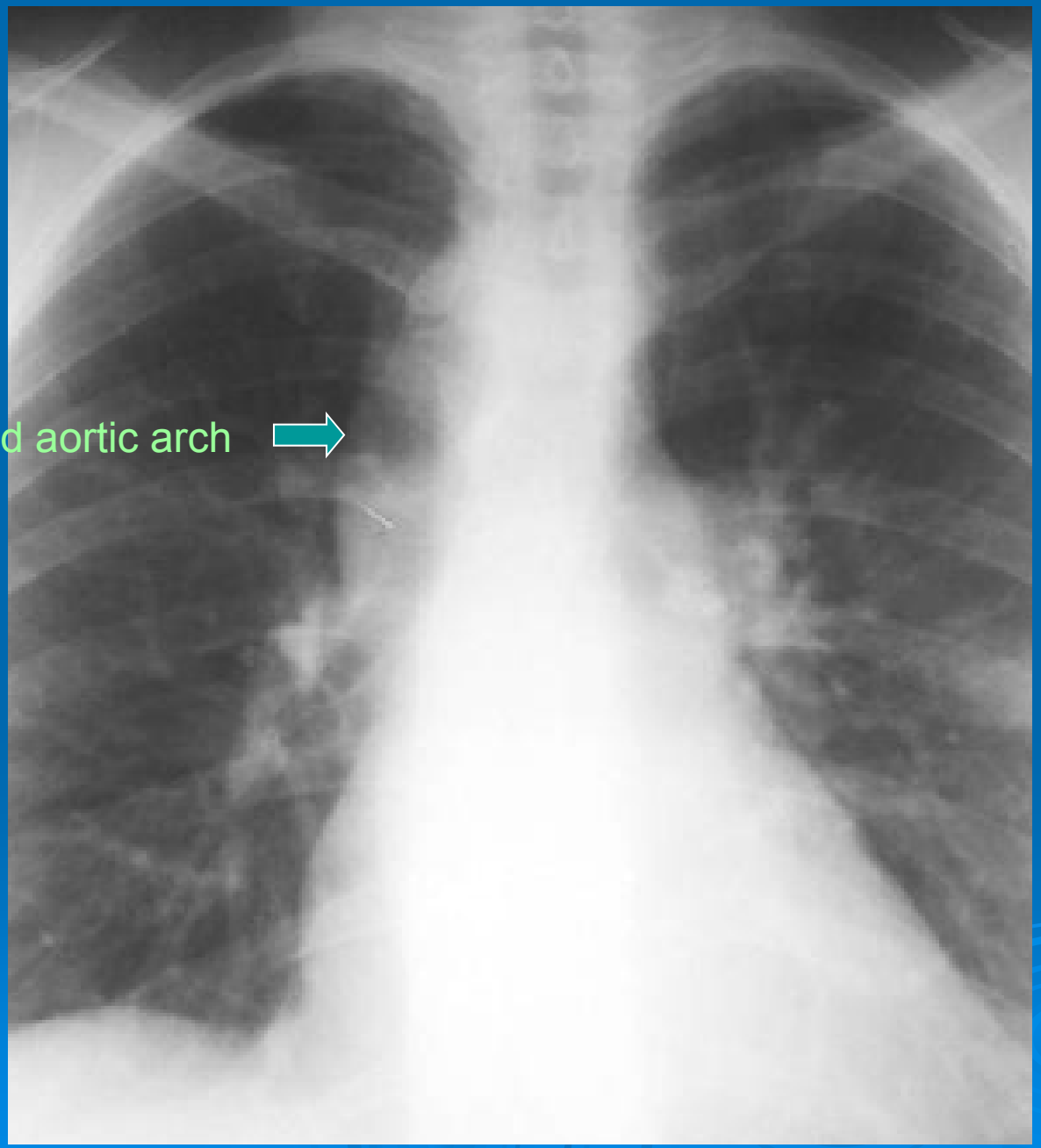
Pulmonary oedema

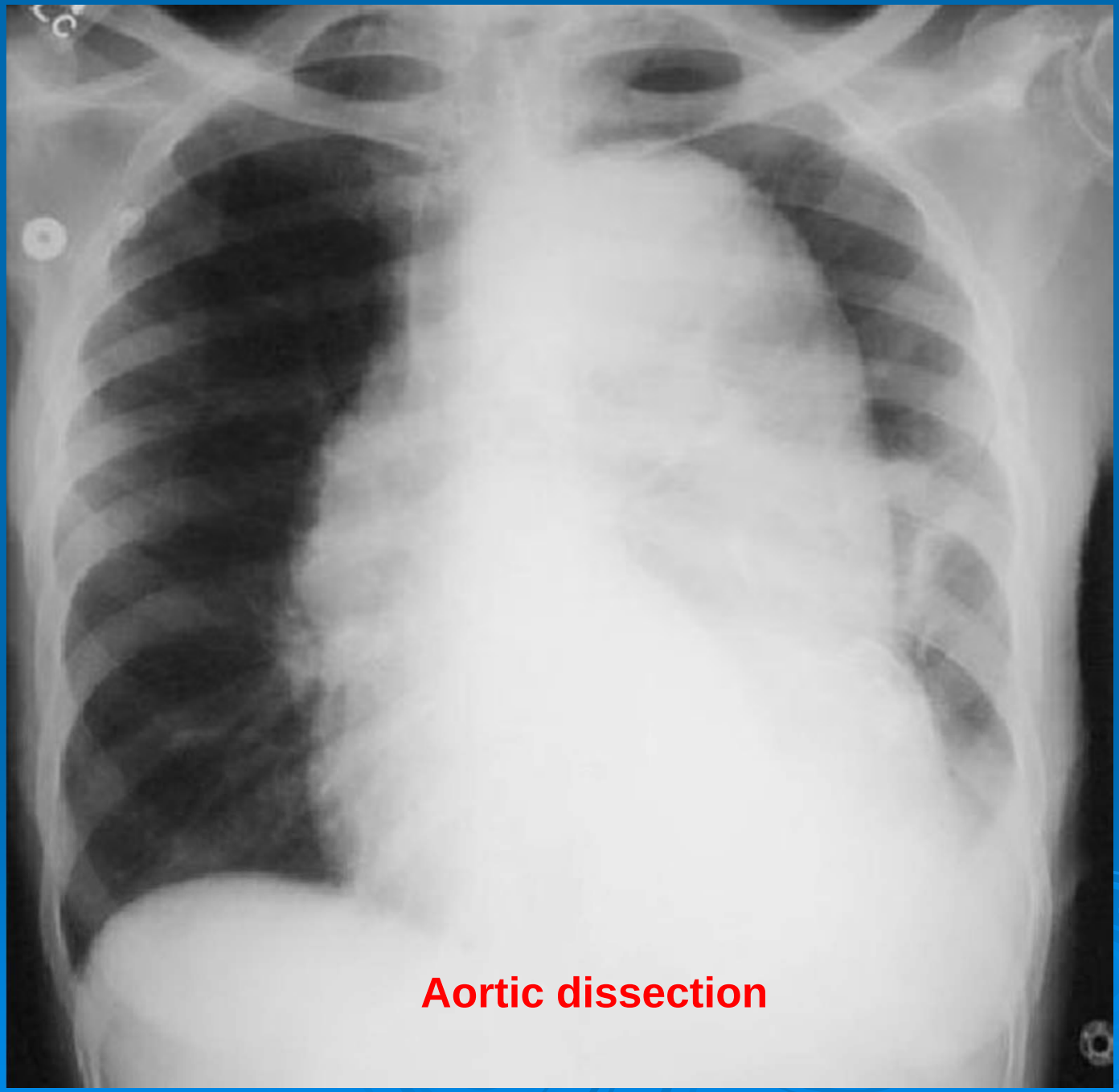


Pulmonary oedema

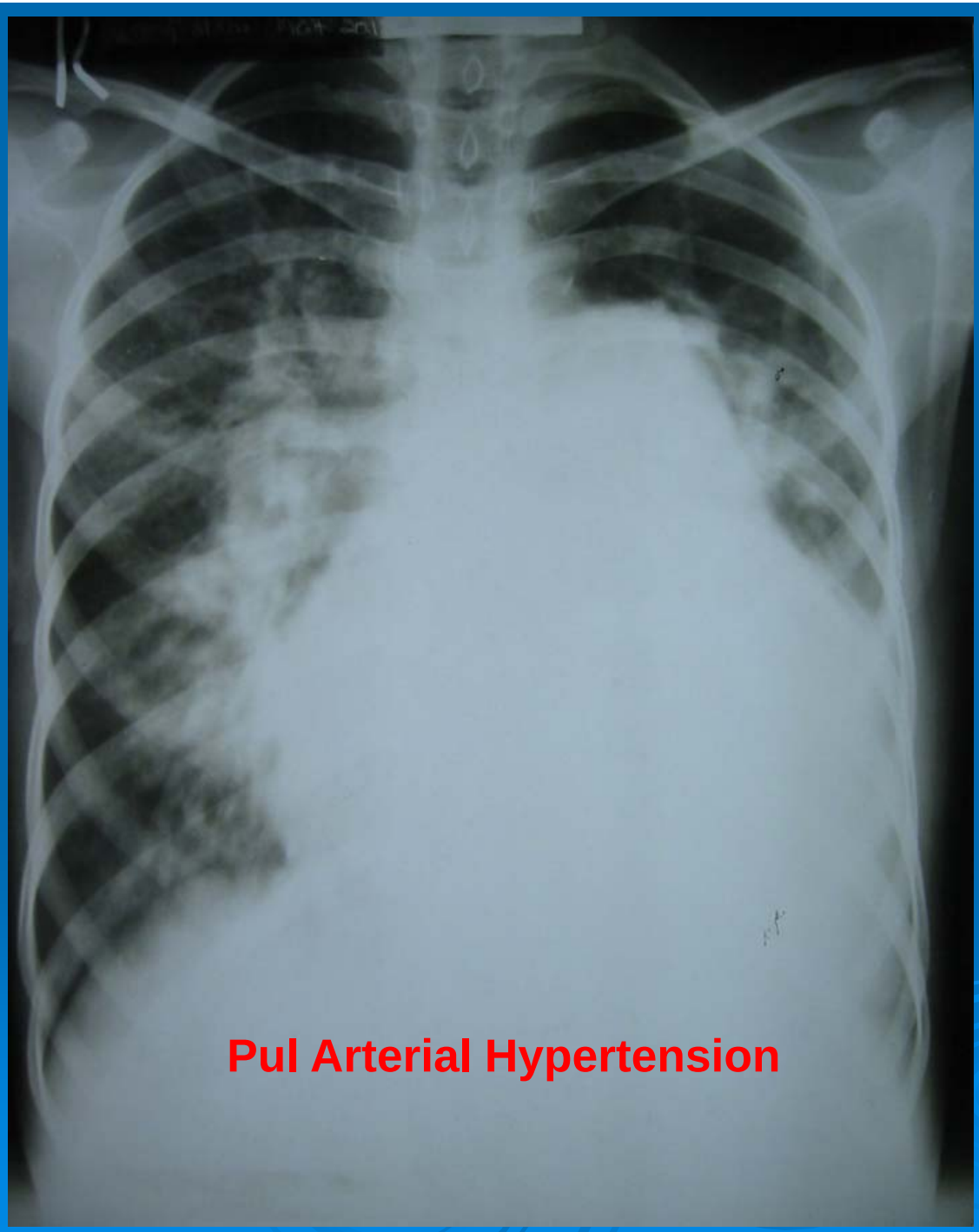

Prominent main pulmonary artery segment
Enlarged Lt Pul artery
Normal sized heart
Pulmonary Stenosis
Amersha,m

Rt sided aortic arch





Aortic dissection



Pul Arterial Hypertension