



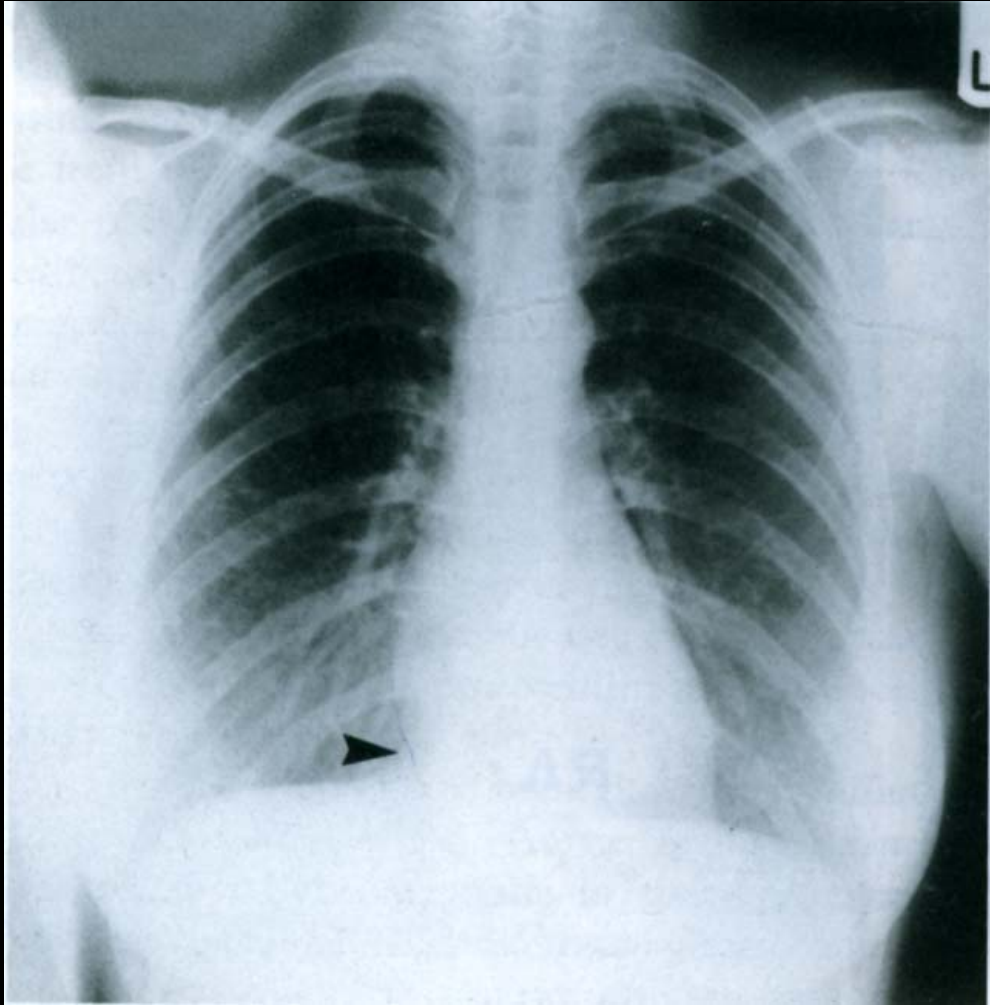
Introduction to Cardiac Imaging



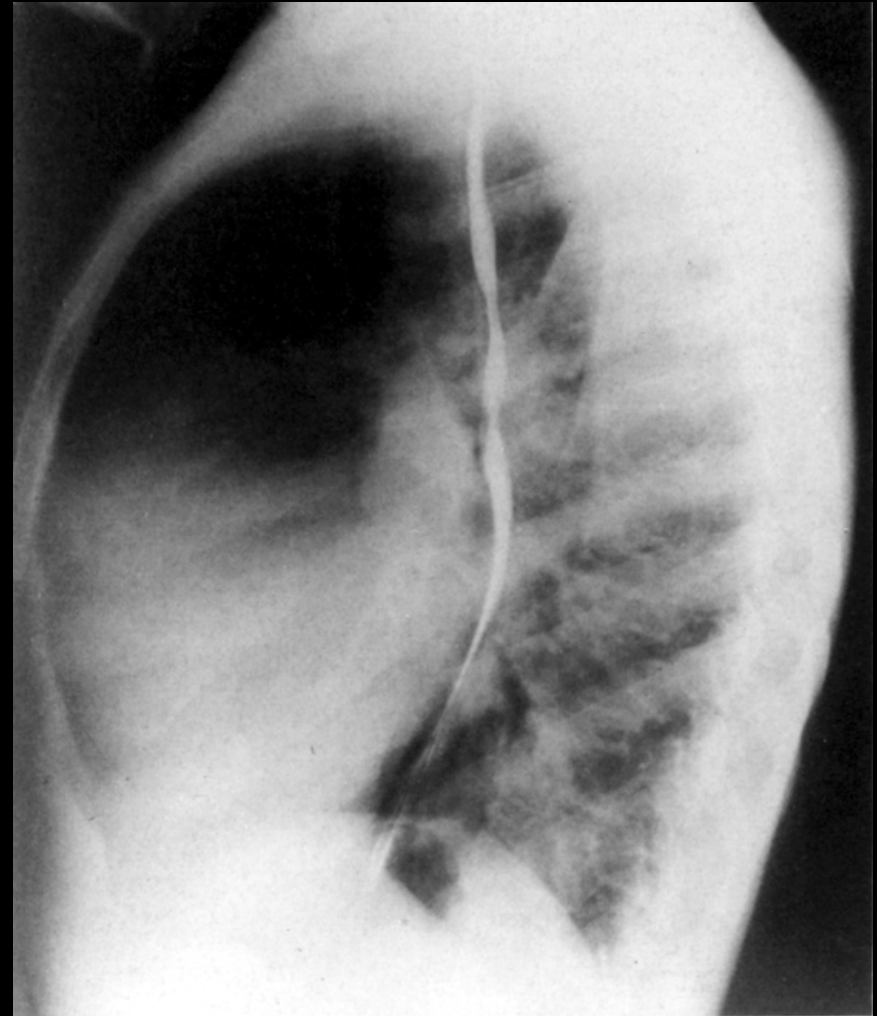
Methods of Examination of the heart

- **Plain Radiography**
- **Fluoroscopy**
- **Echocardiography**
- **Tomography:**
 - **Conventional Tomography (Not Used)**
 - **Computed Tomography CT**
- **MRI**
- **Radioisotopes**
- **Angiography**

(1) Plain radiography (Chest X-ray)



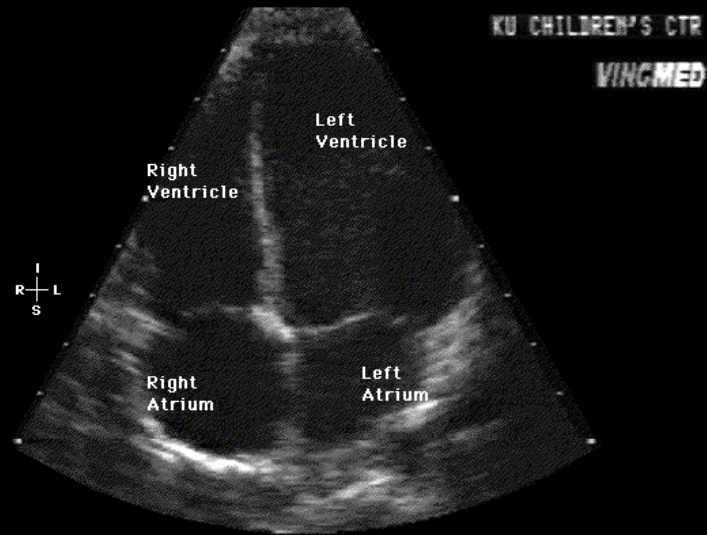
PA View



Left Lateral With BA

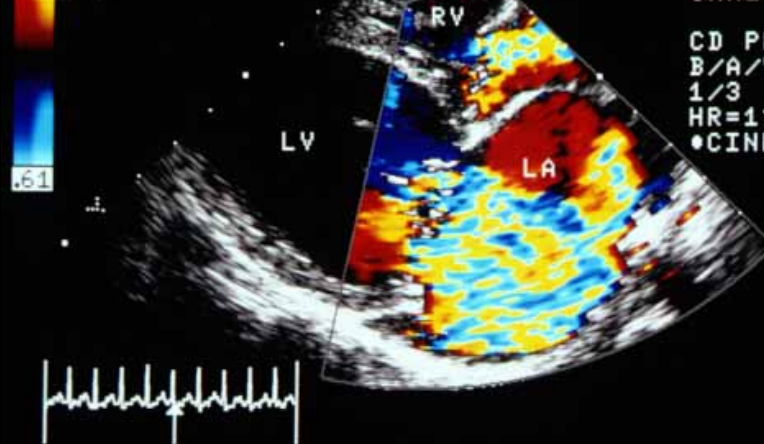
(2) Echocardiography

Normal Anatomy, Apical 4 Chamber

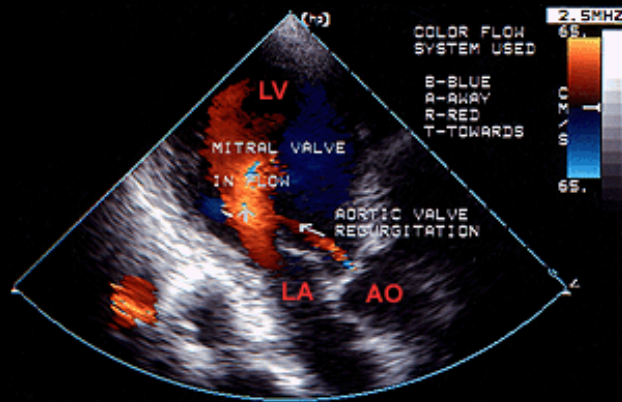


PT: UCD VMTH CARDIOLOGY 307052
MOZER "JOEY"
K9 X/TERR M
11 YRS
BJG

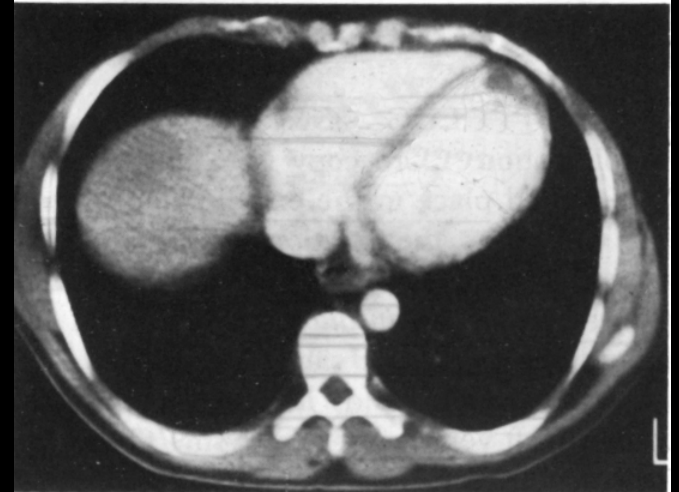
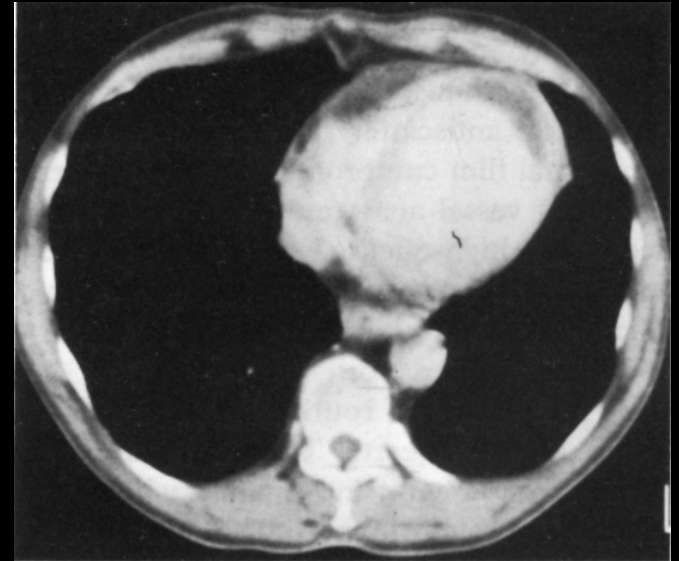
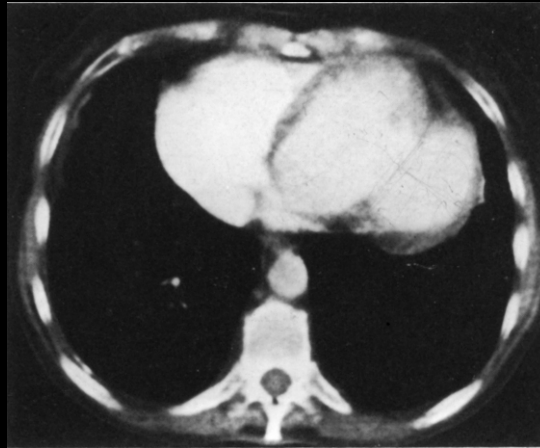
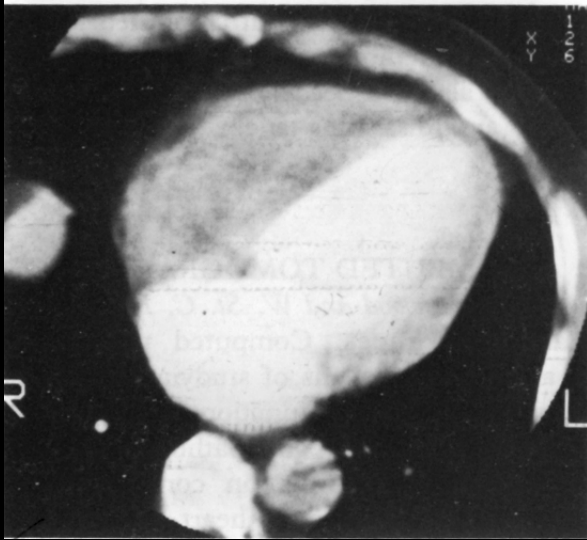
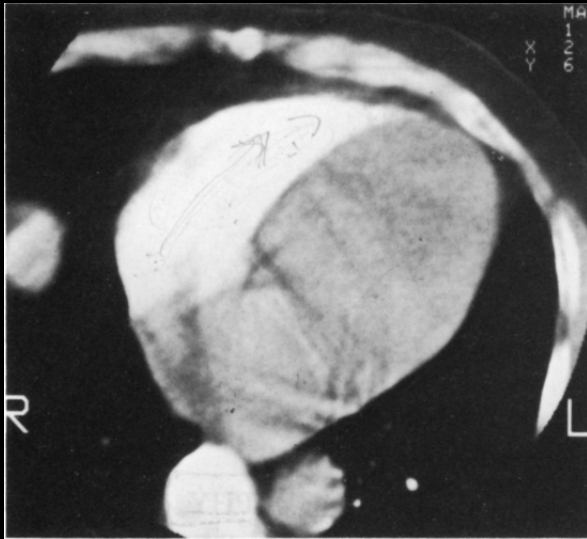
30-JUL-98
12:42:47PM
S5192 # 37
3.5MHz 100mm
CANINE /V



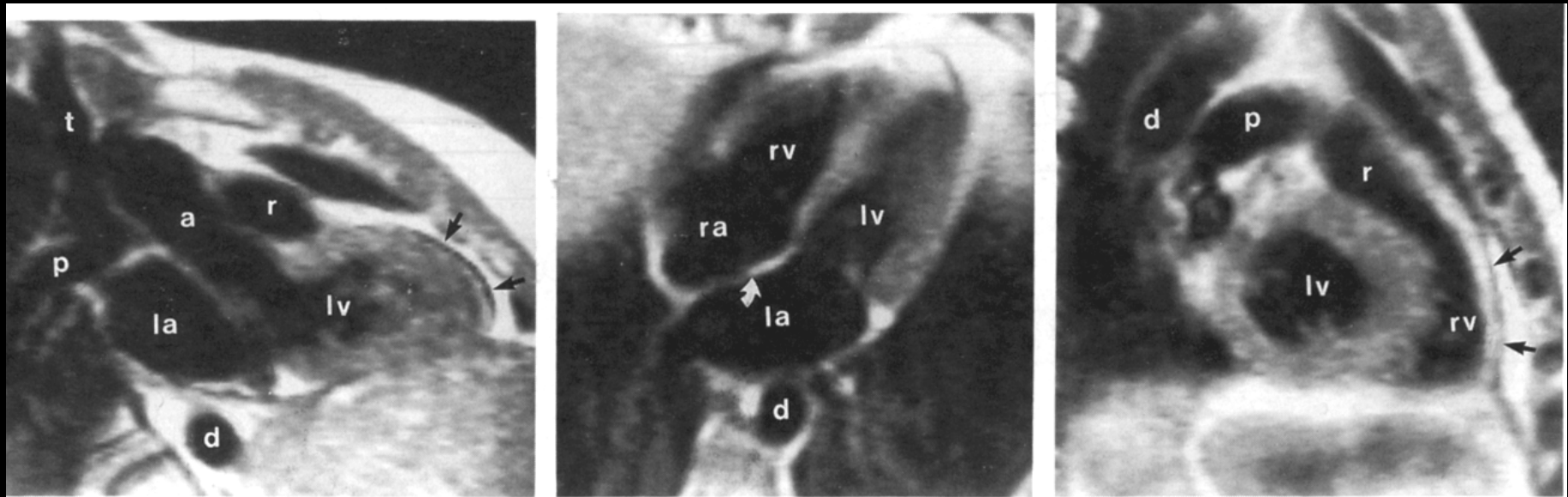
CD PWR<500
B/A/VV5
1/3 3.5MHz
HR=171bpm
•CINE



(3) Spiral CT



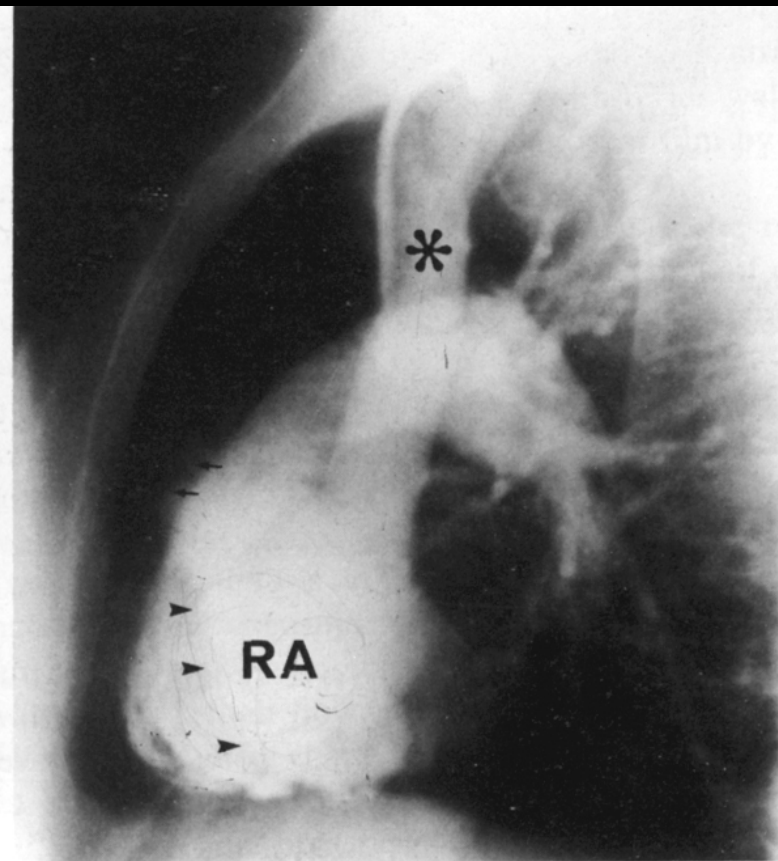
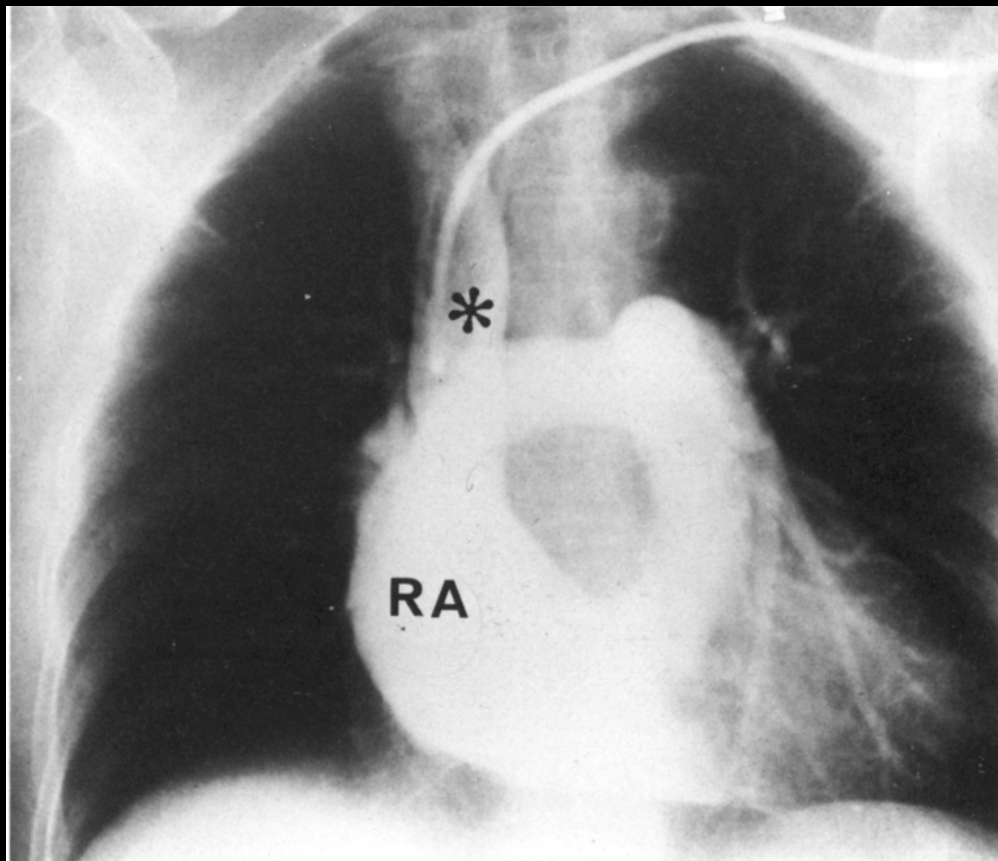
(4) MRI



(5) RADIOISOTOPES



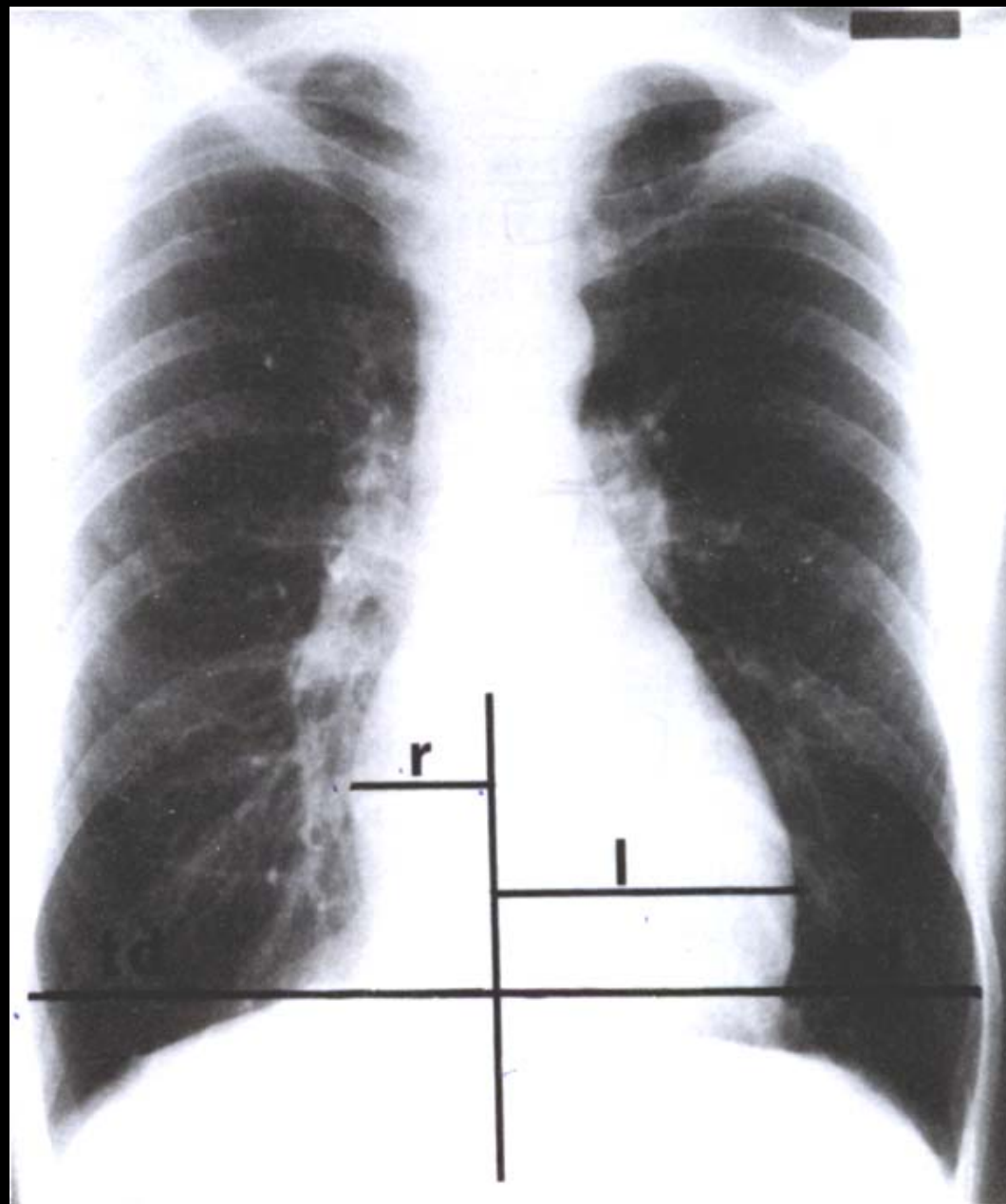
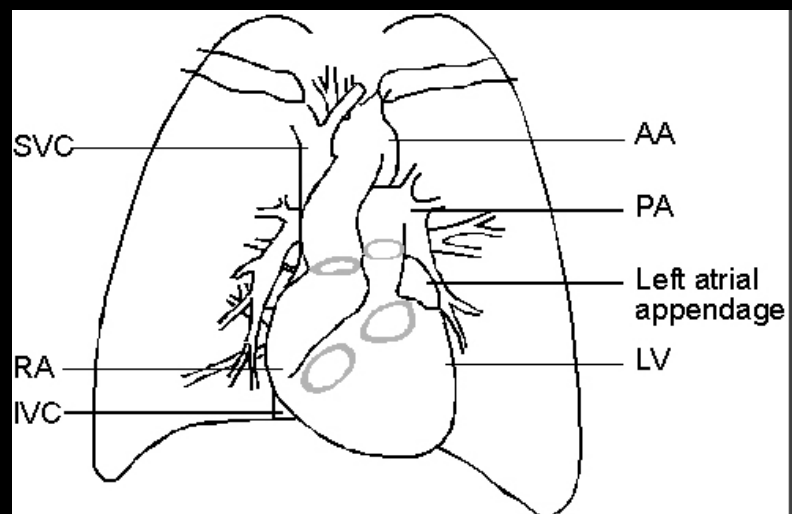
(6) Angiography





Normal Radiological Anatomy of the heart

Normal Radiological Anatomy of the heart & Its Borders



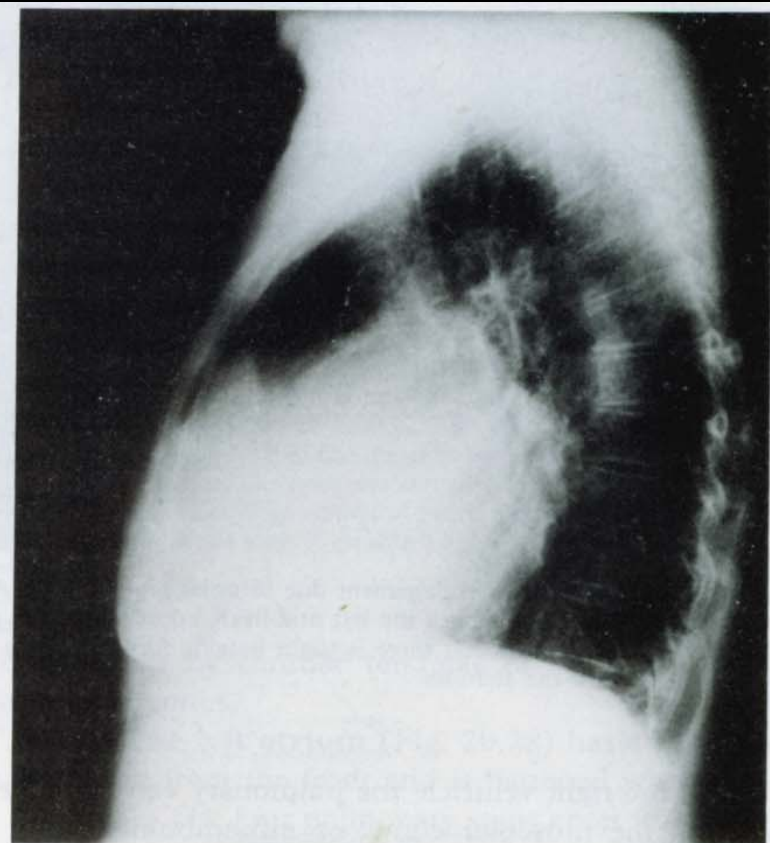
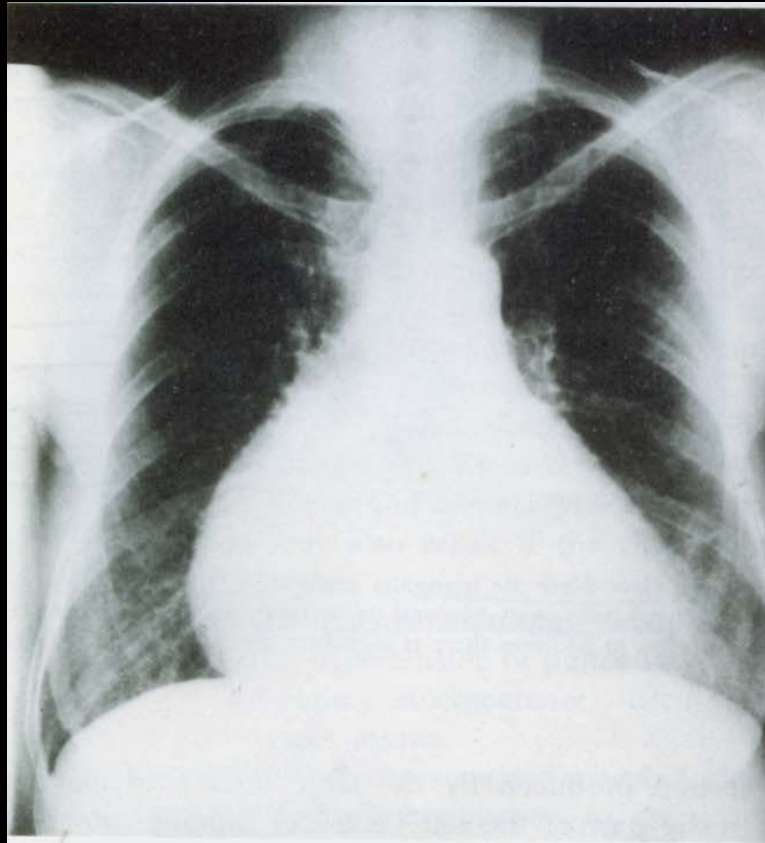
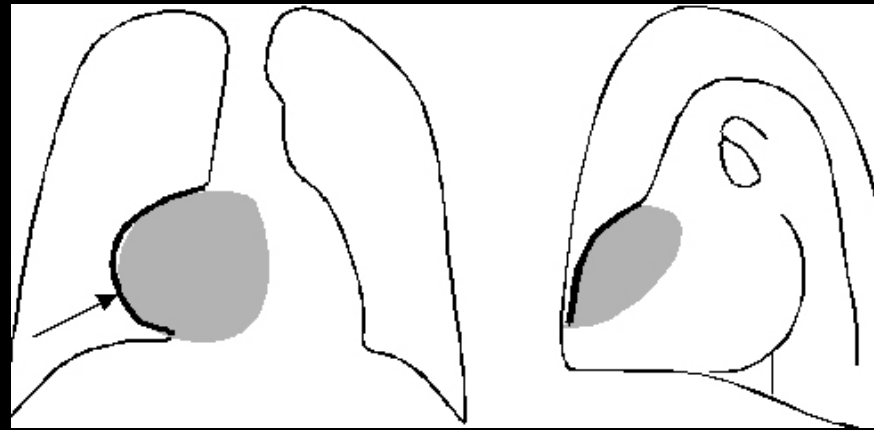
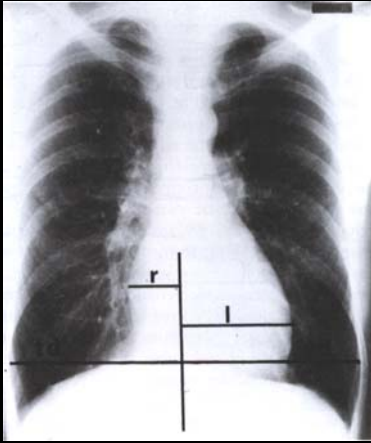


Cardiac Chamber Enlargement

- **Right Atrial Enlargement**
- **Right Atrial Appendage Enlargement**
- **Right Ventricular Enlargement**
- **Left Atrial Enlargement**
- **Left Atrial Appendage Enlargement**
- **Left Ventricular Enlargement**



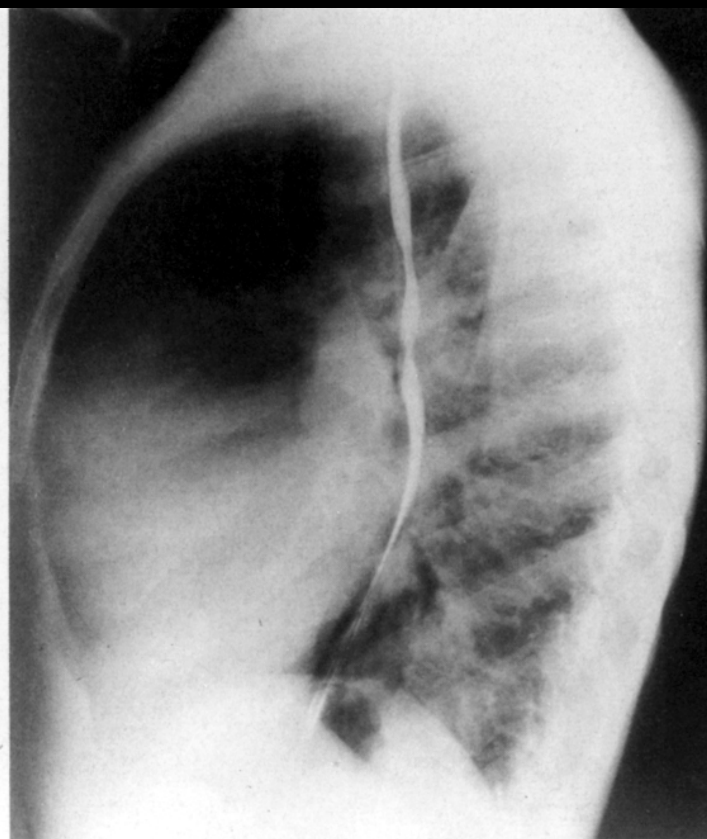
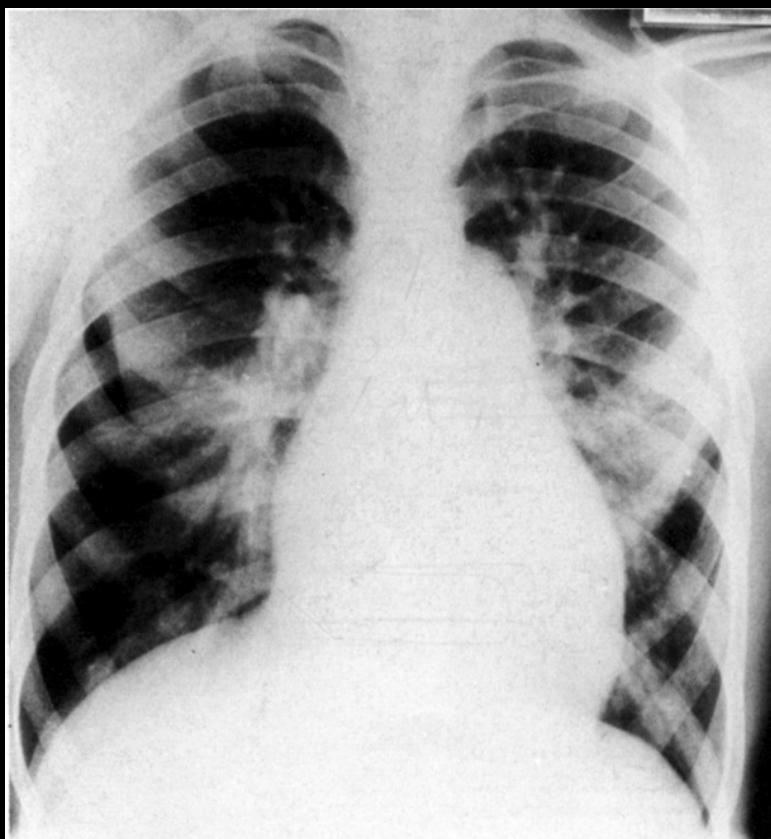
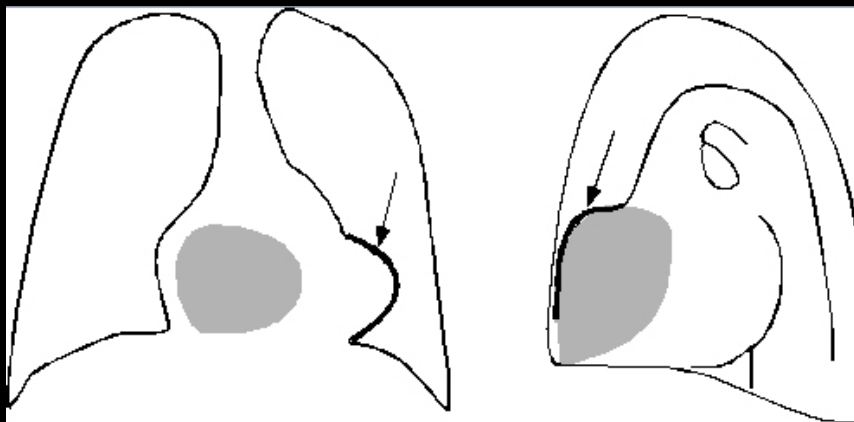
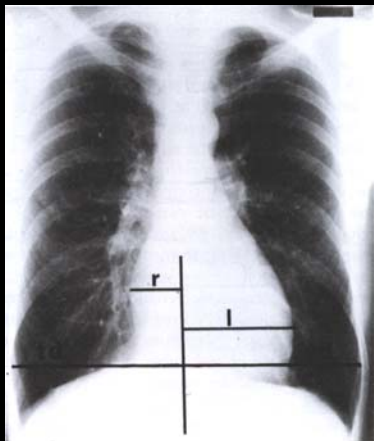
Right Atrial Enlargement



Right Atrial Enlargement



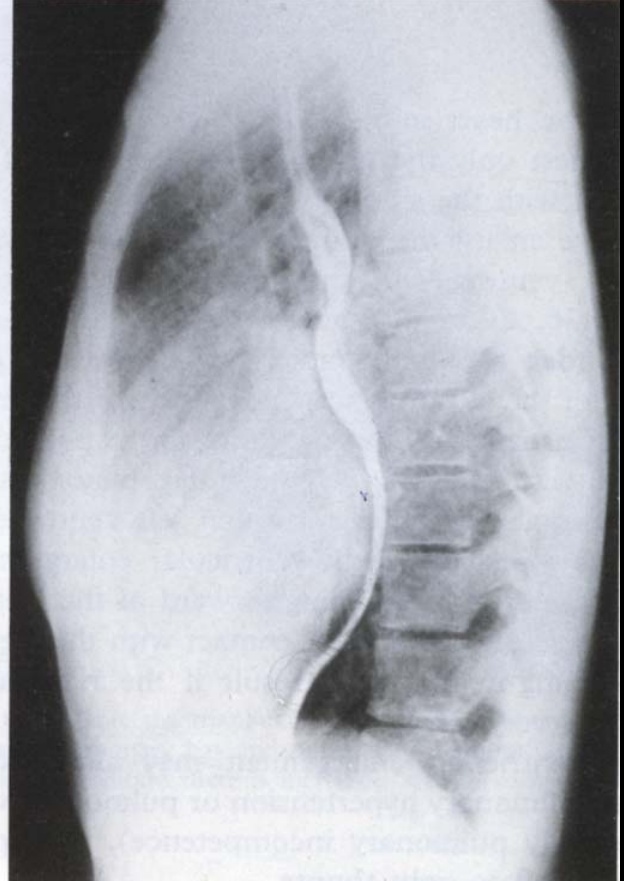
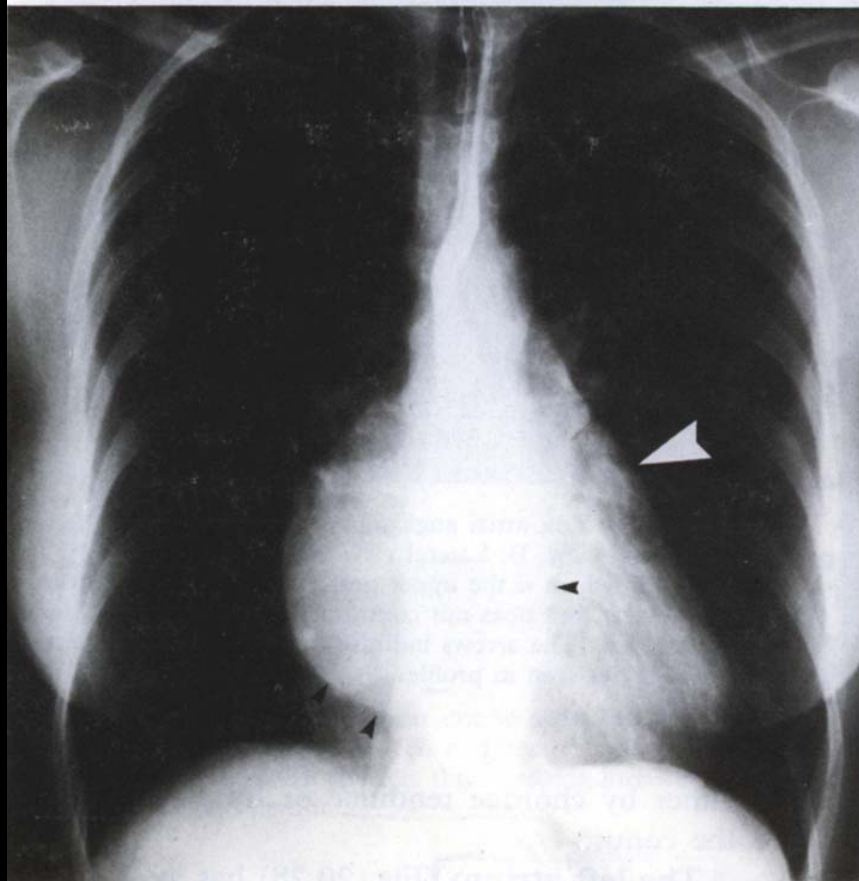
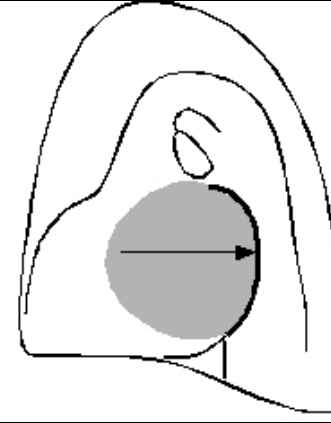
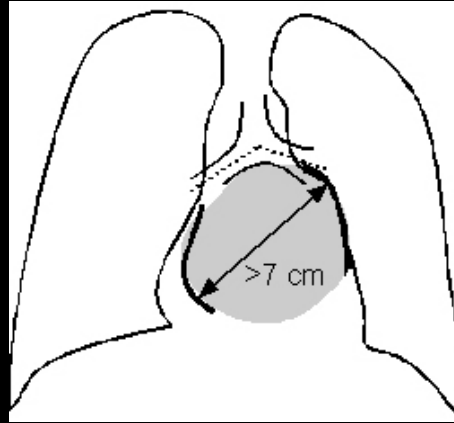
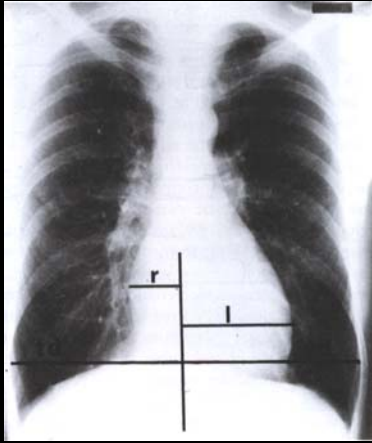
Right Ventricular Enlargement



Right Ventricular Enlargement



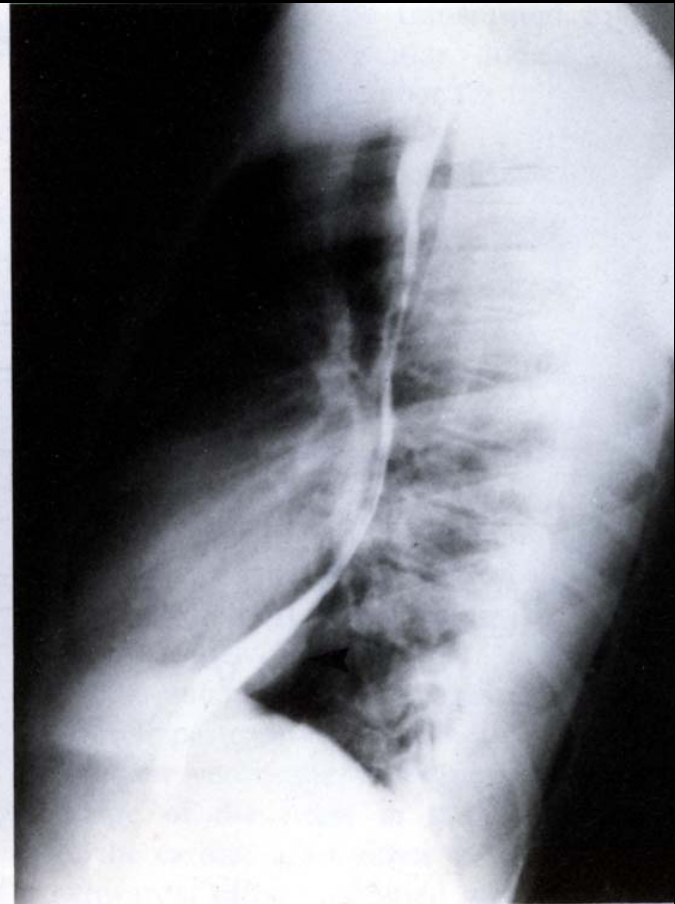
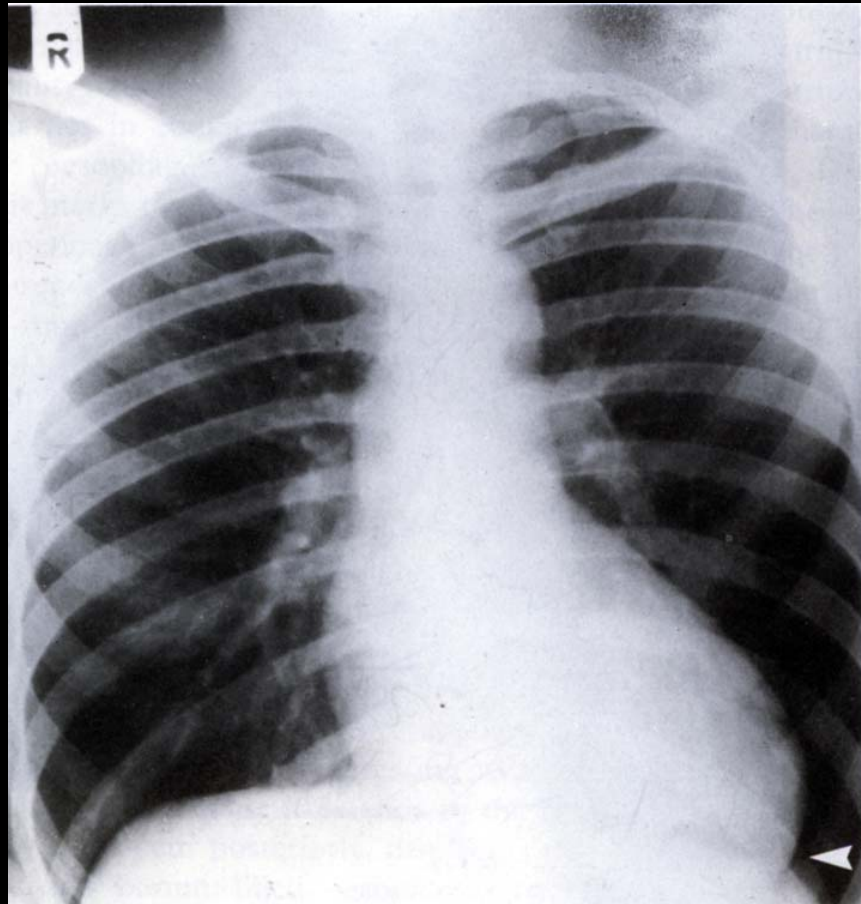
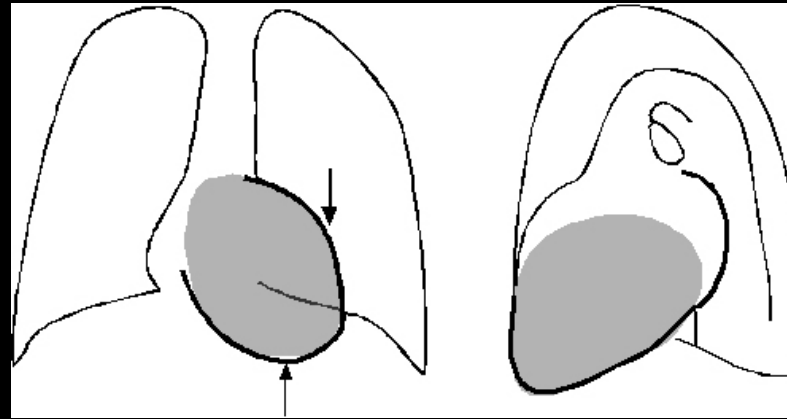
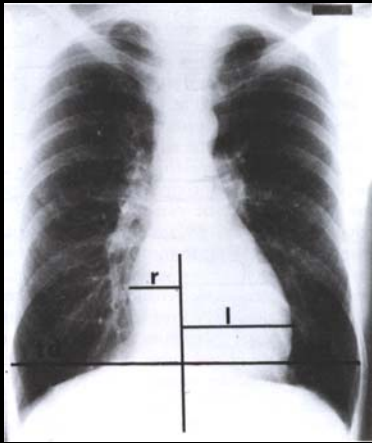
Left Atrial Enlargement



Left Atrial Appendage Enlargement



Left Ventricular Enlargement

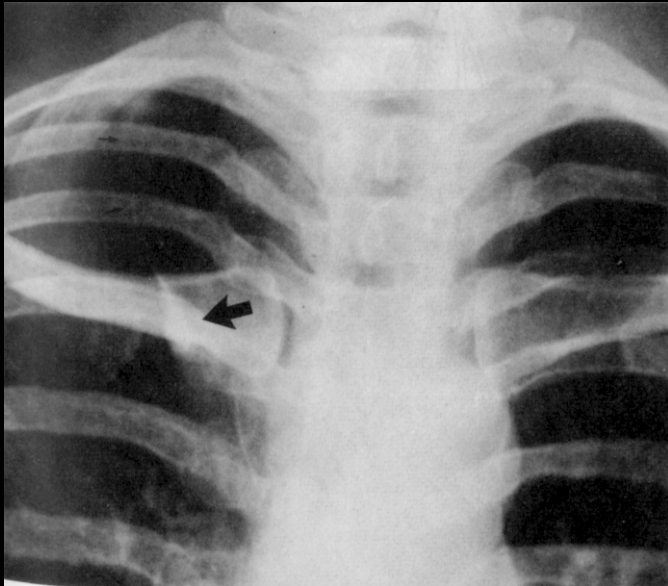


Left Ventricular Enlargement

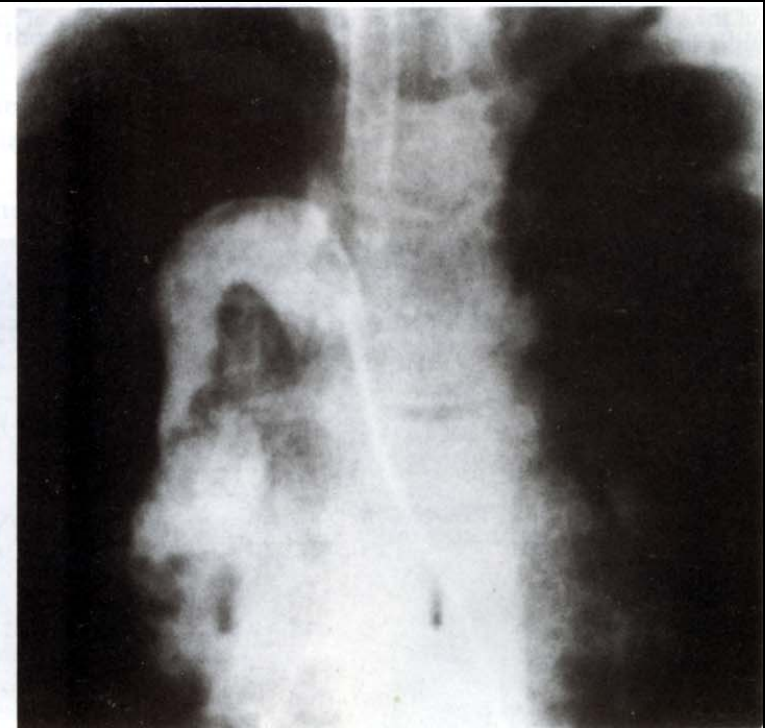
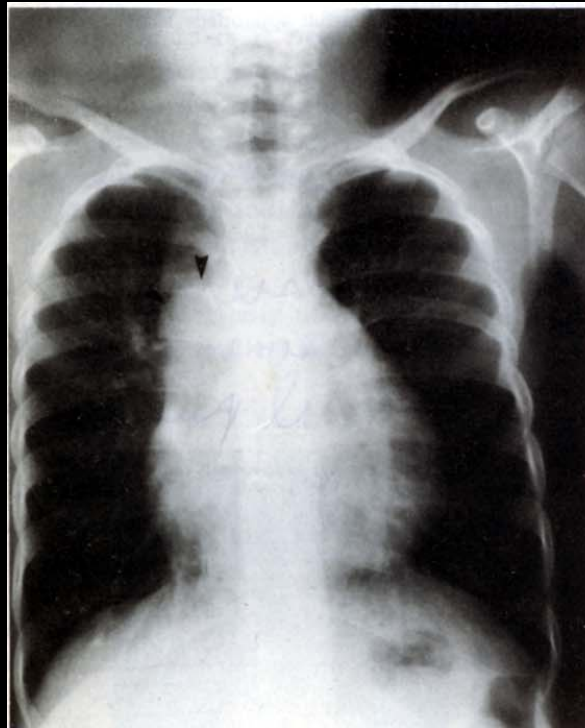


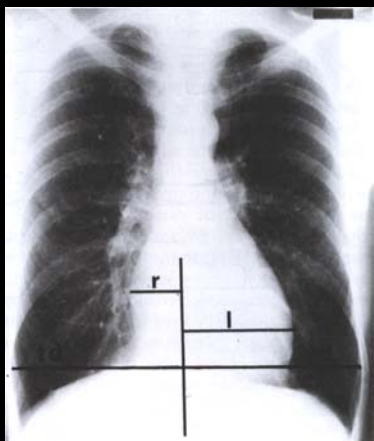
Vascular Cardiac Borders Abnormalities

- **The right Cardiac Border:**
 - SVC Enlargement or dilatation
 - Abnormally Enlarged Azygos V.
 - Ascending Aorta Dilatation
 - IVC Enlargement or dilatation
- **The left Cardiac Border:**
 - Aortic Knuckle Enlargement
 - Enlargement of the pulmonary conus (bay)

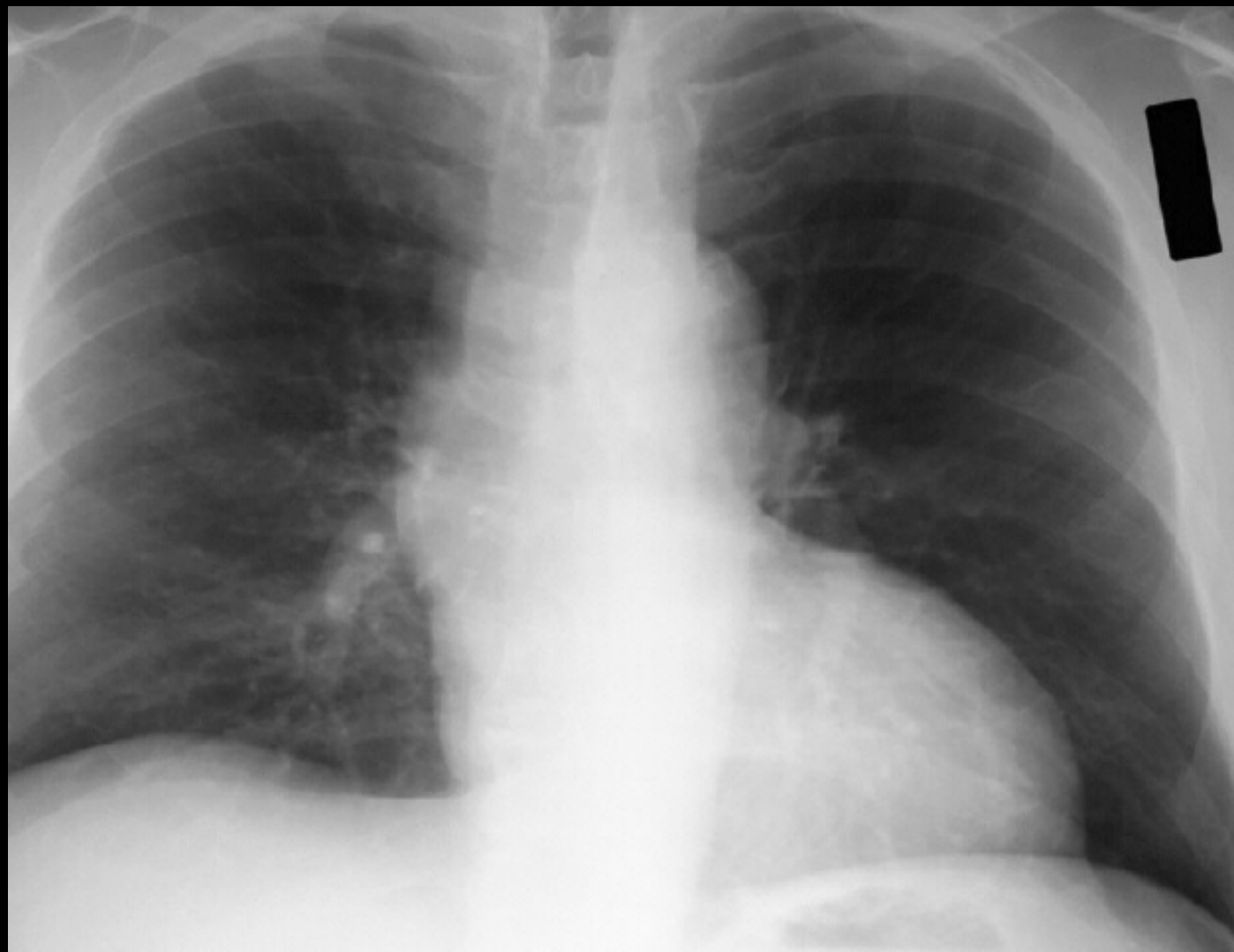


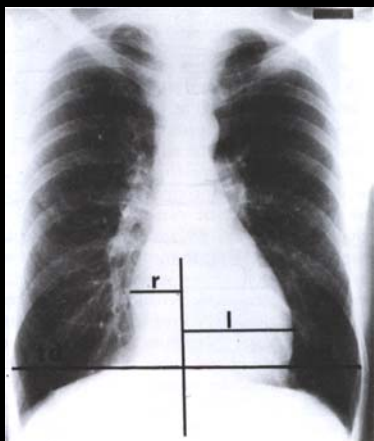
Abnormally Enlarged Azygos V.



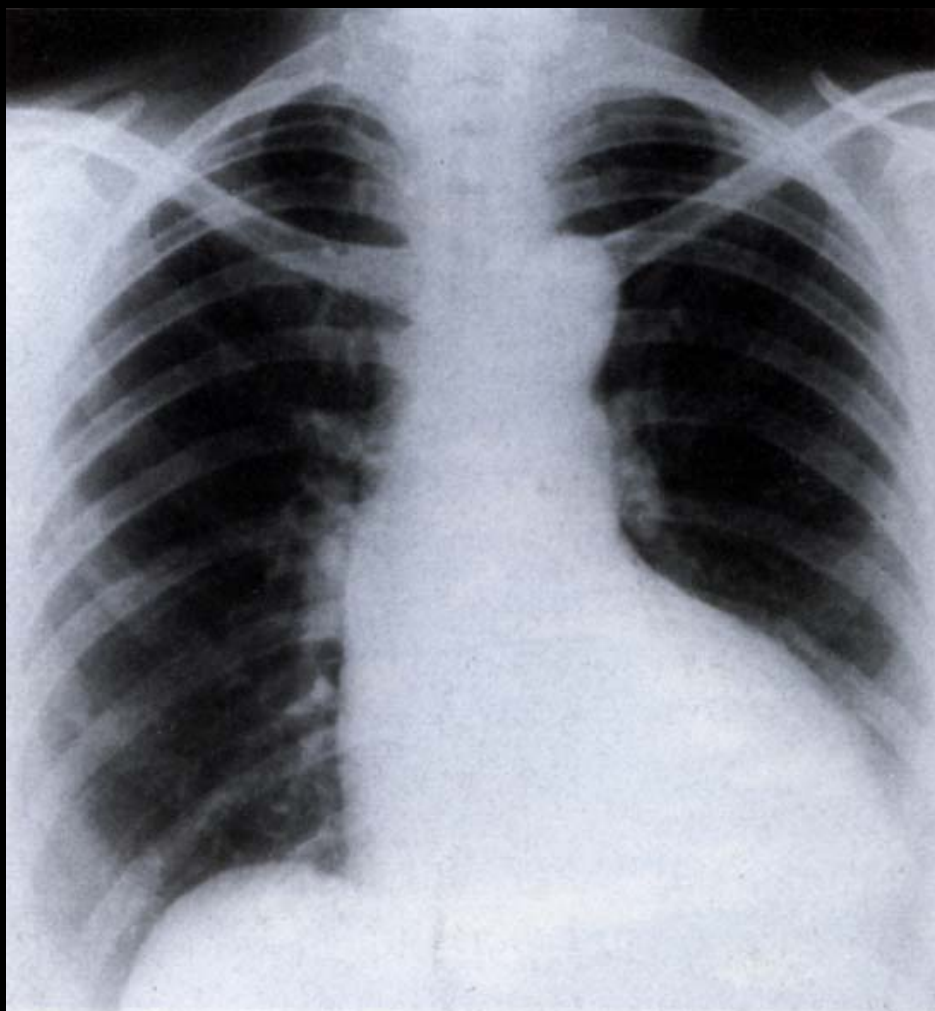


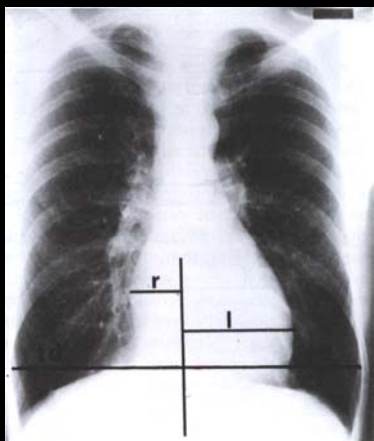
Prominent Asc. Aorta



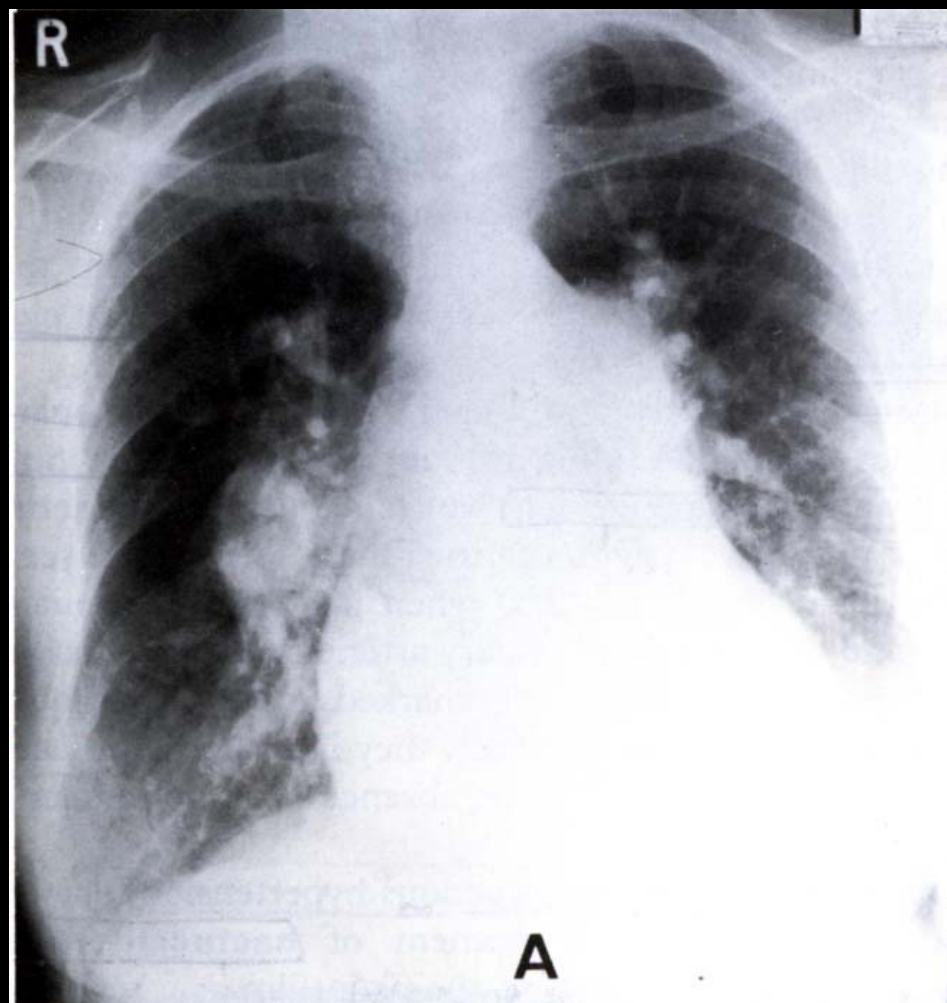
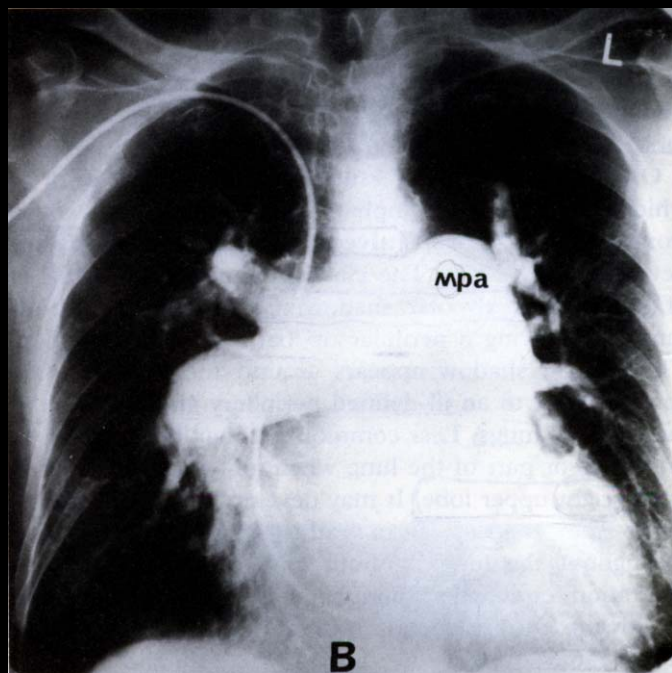


Aortic Knuckle Enlargement





Enlargement of the Pulmonary Conus (bay)

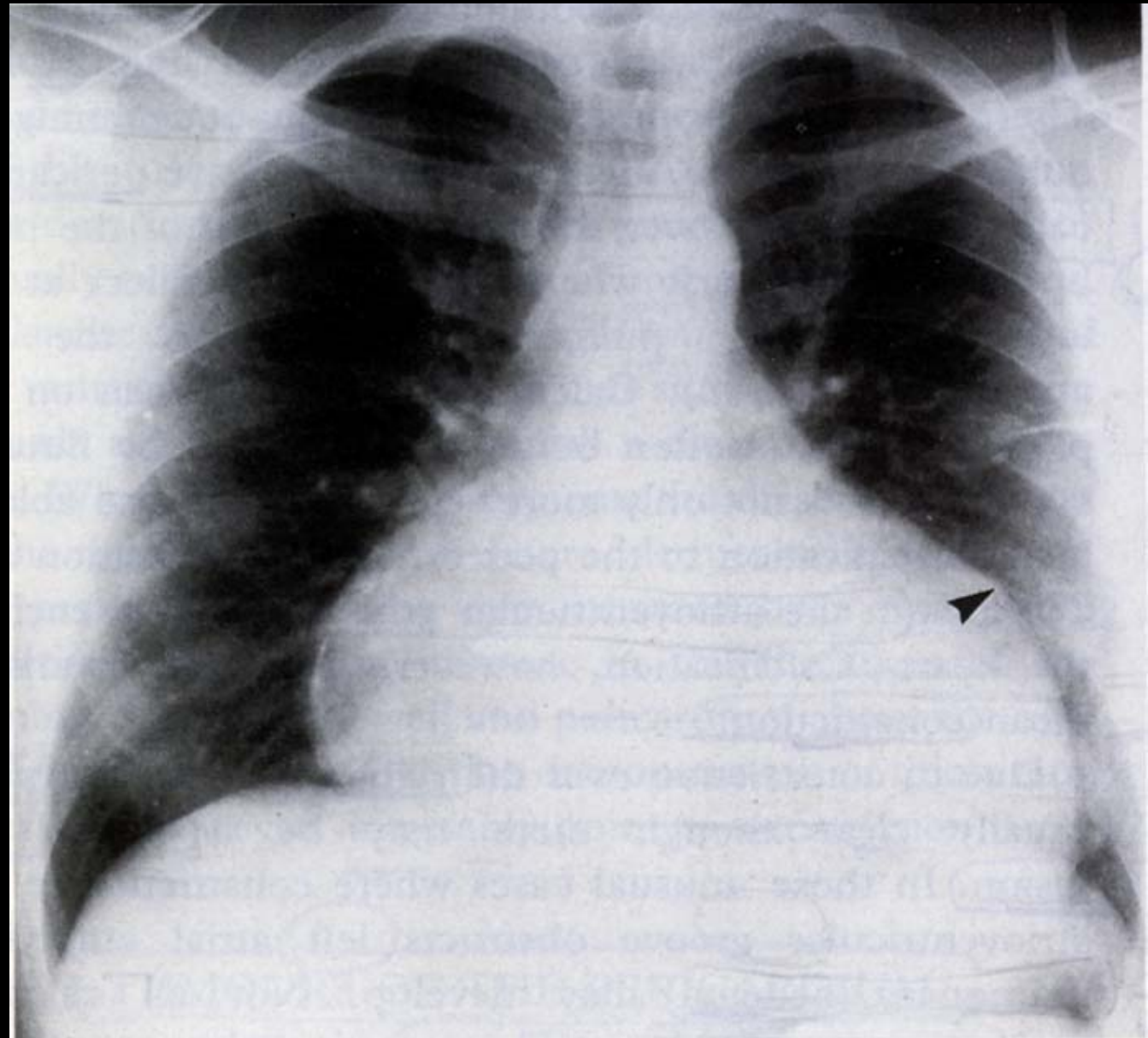
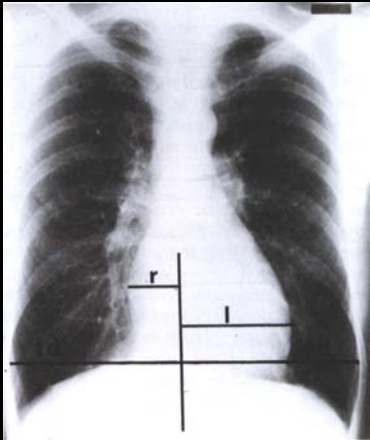


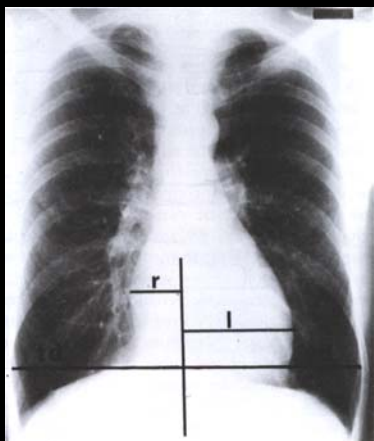


DD of Globular Cardiac Enlargement

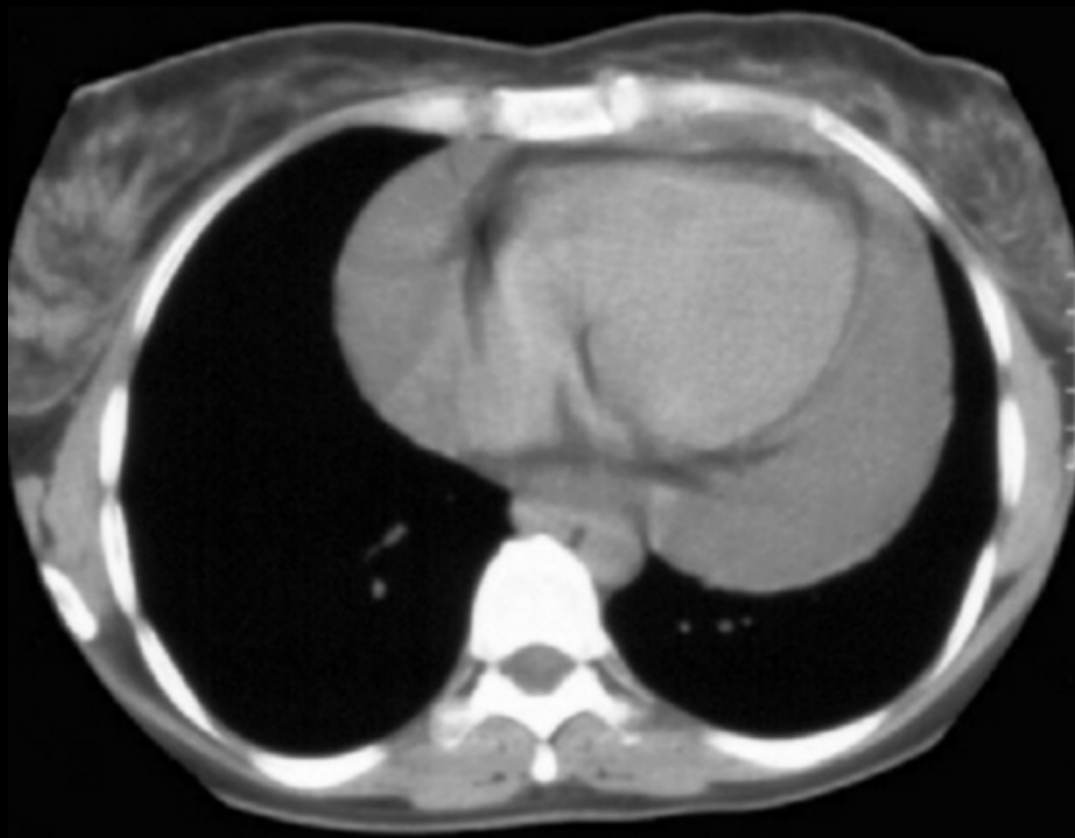
- **Pericardial Effusion**
- **Multiple Valvular Lesions**
- **Cardiomyopathy with Ischemia**
- **Ebstein Anomaly**
- **ASD**

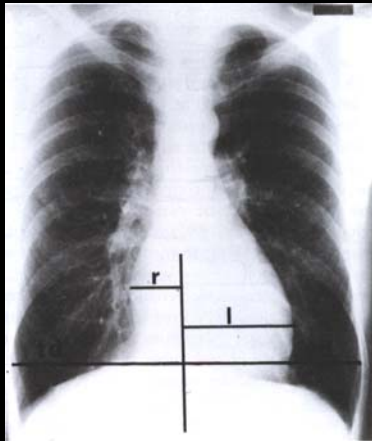
(1) Pericardial Effusion



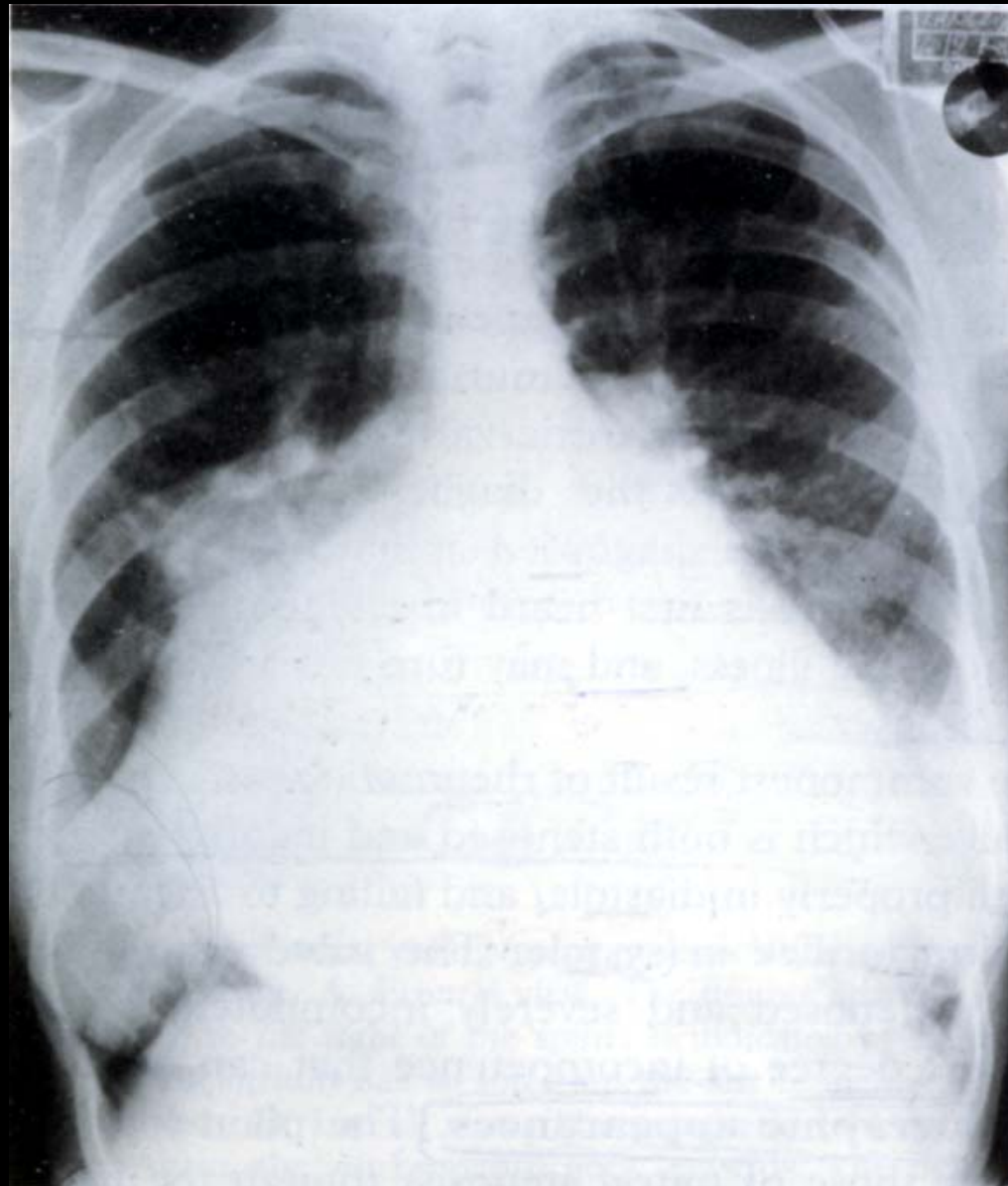


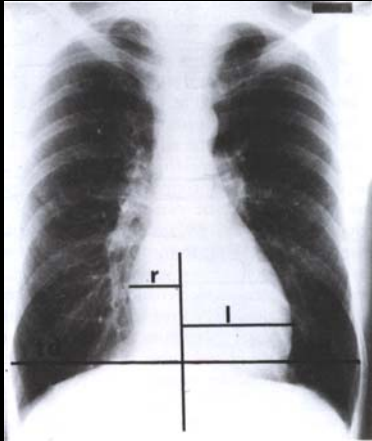
(1) Pericardial Effusion



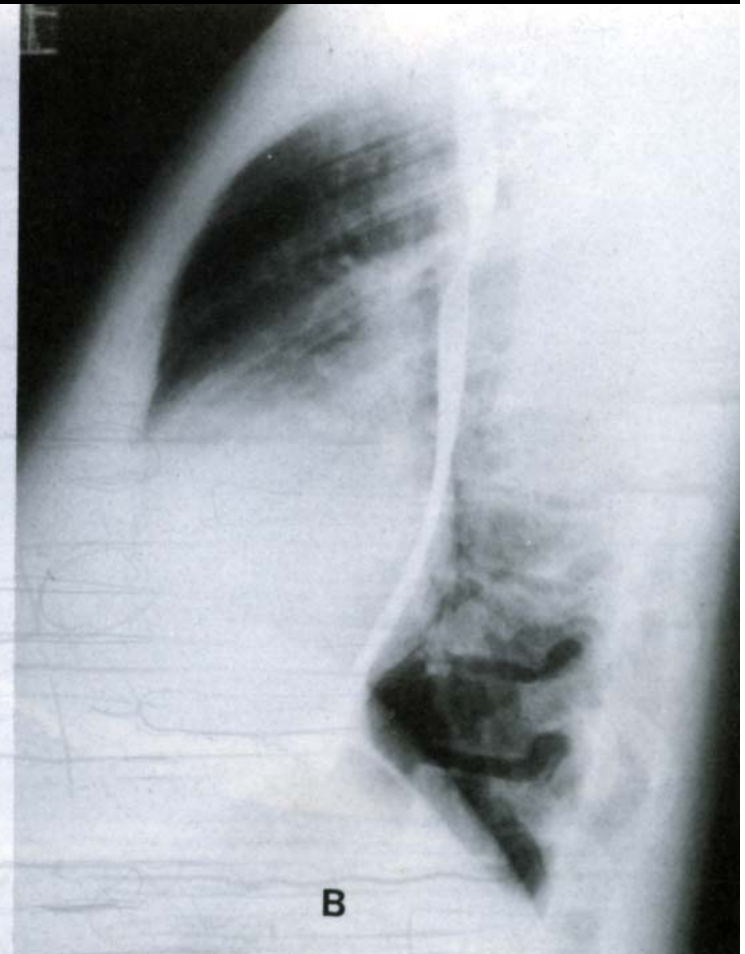
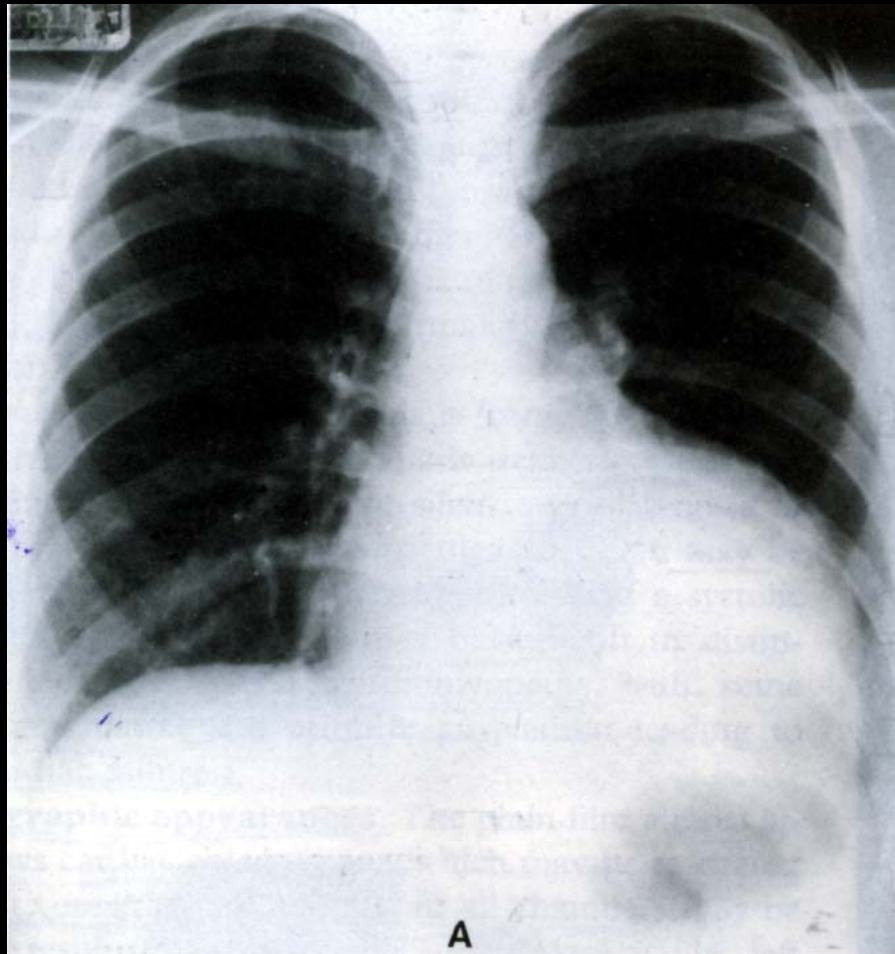


(2) Multiple Valvular lesions

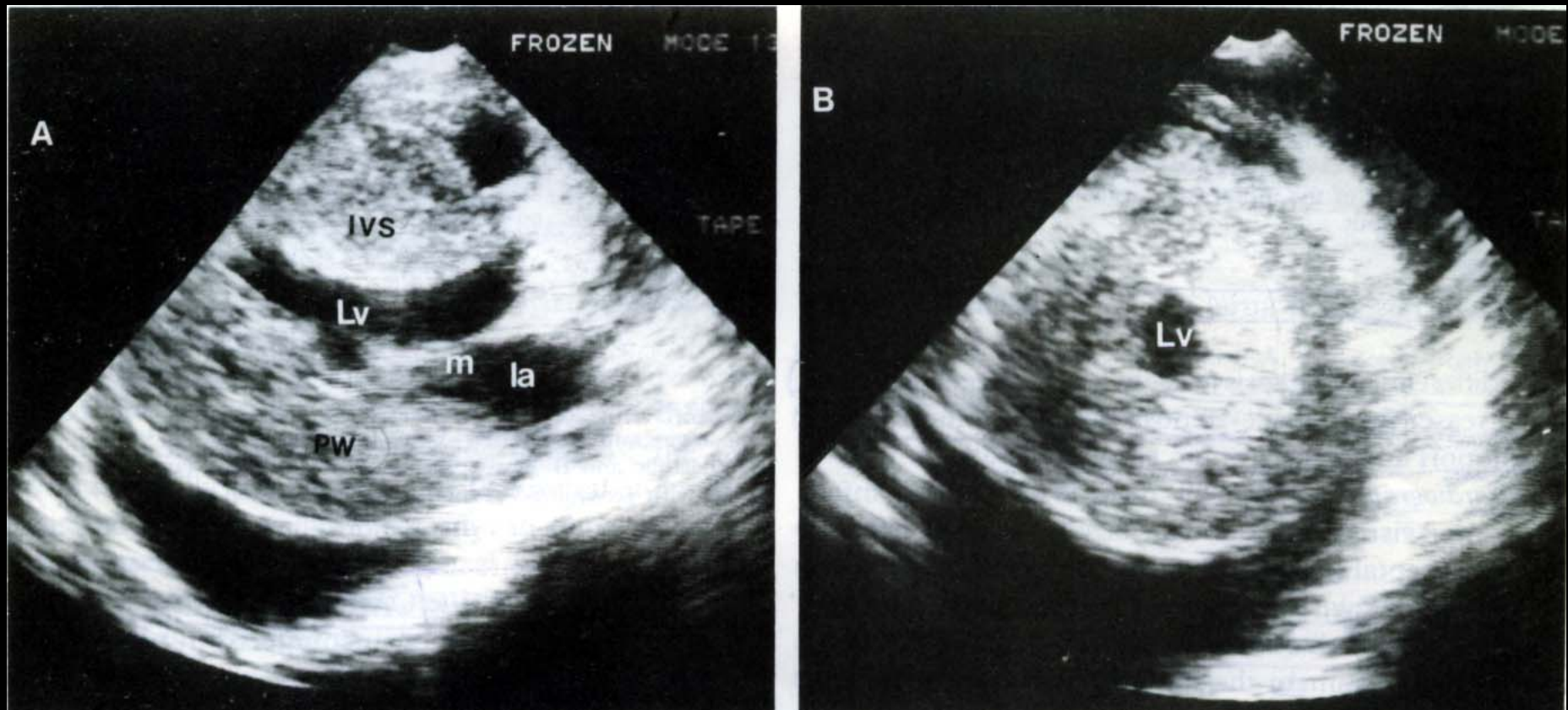


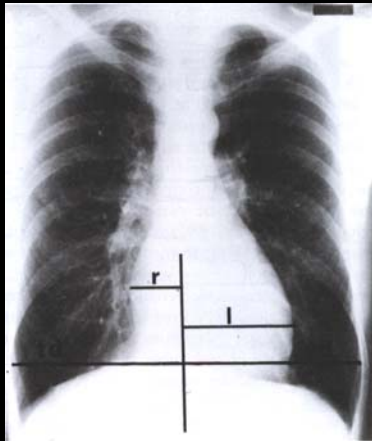


(3) Cardiomyopathy

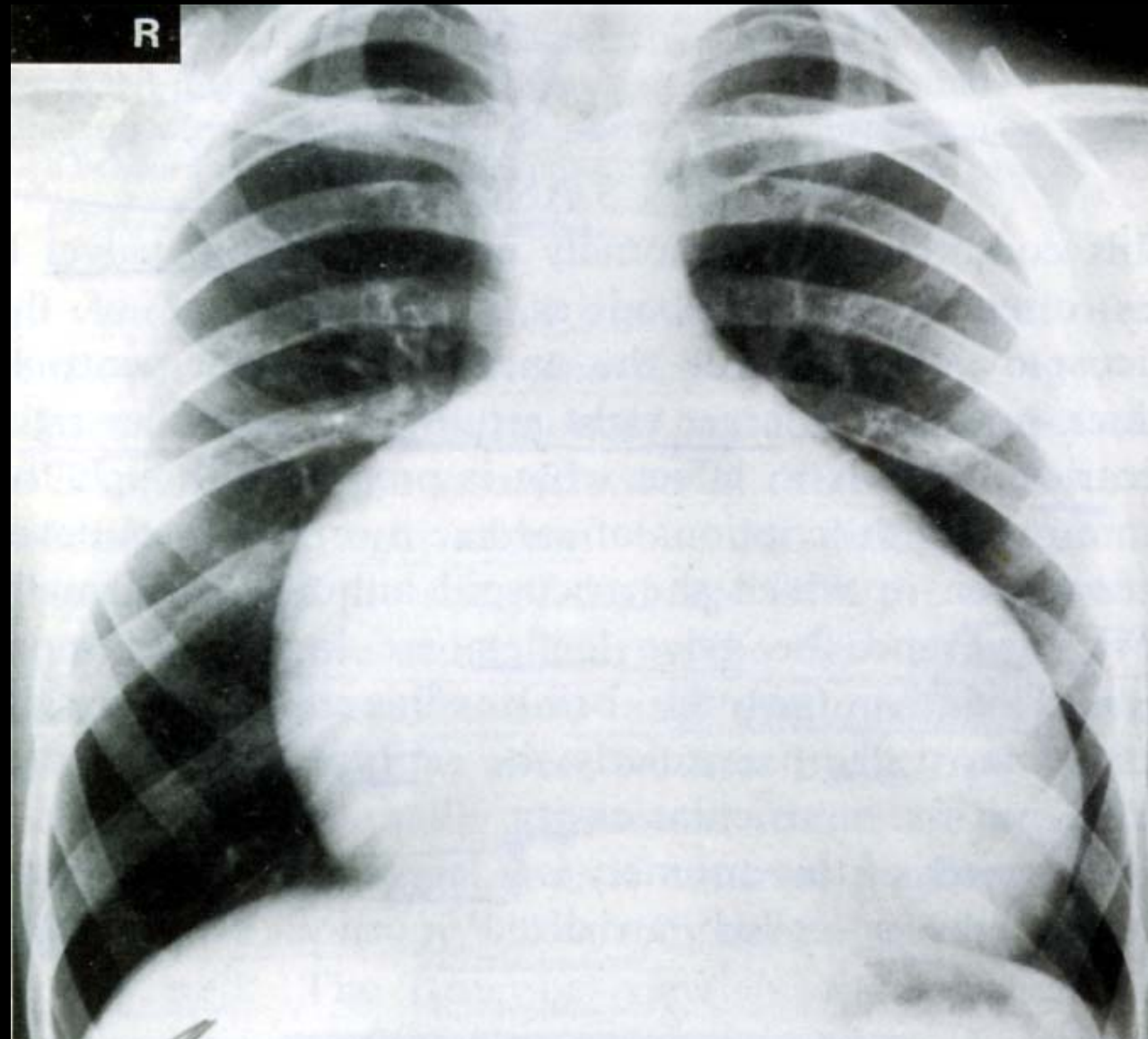


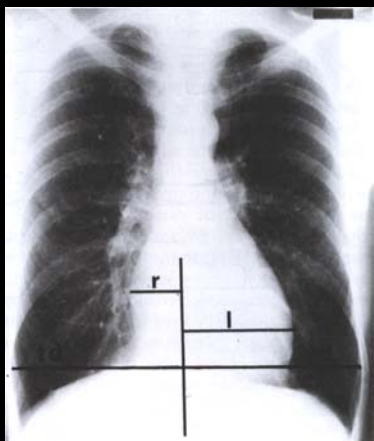
(3) Cardiomyopathy



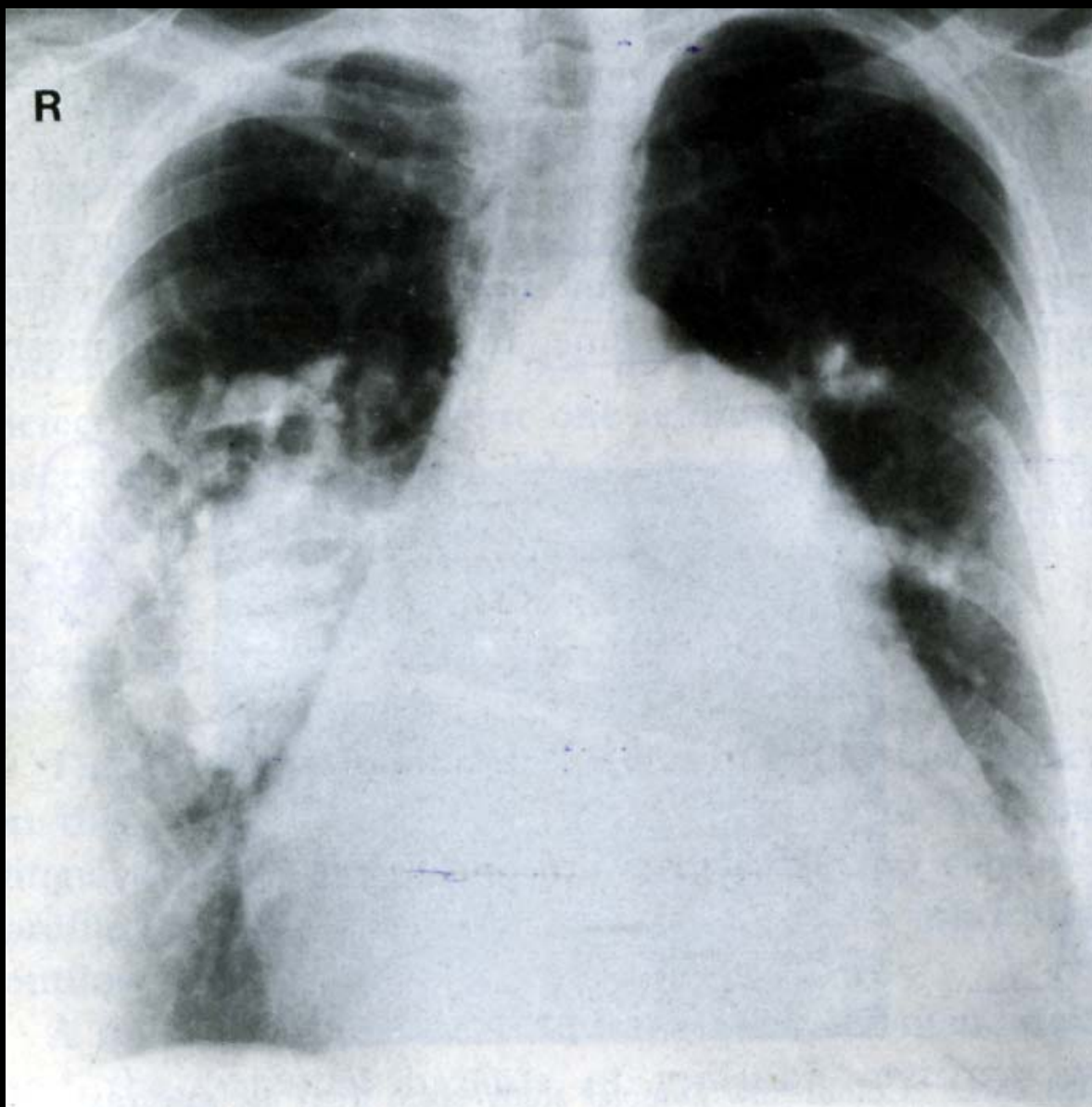


(4) Ebstein Anomaly: Atrialization of the right cardiac chamber + Oligemic lung + TV regurge





(5) ASD

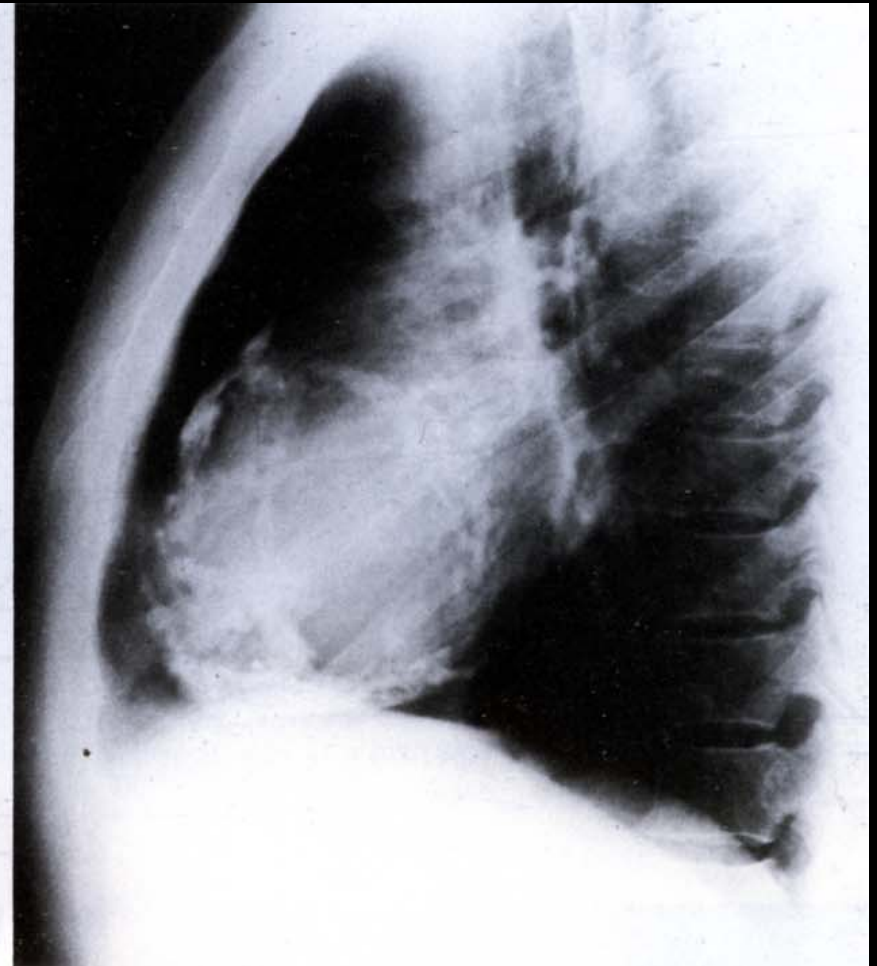
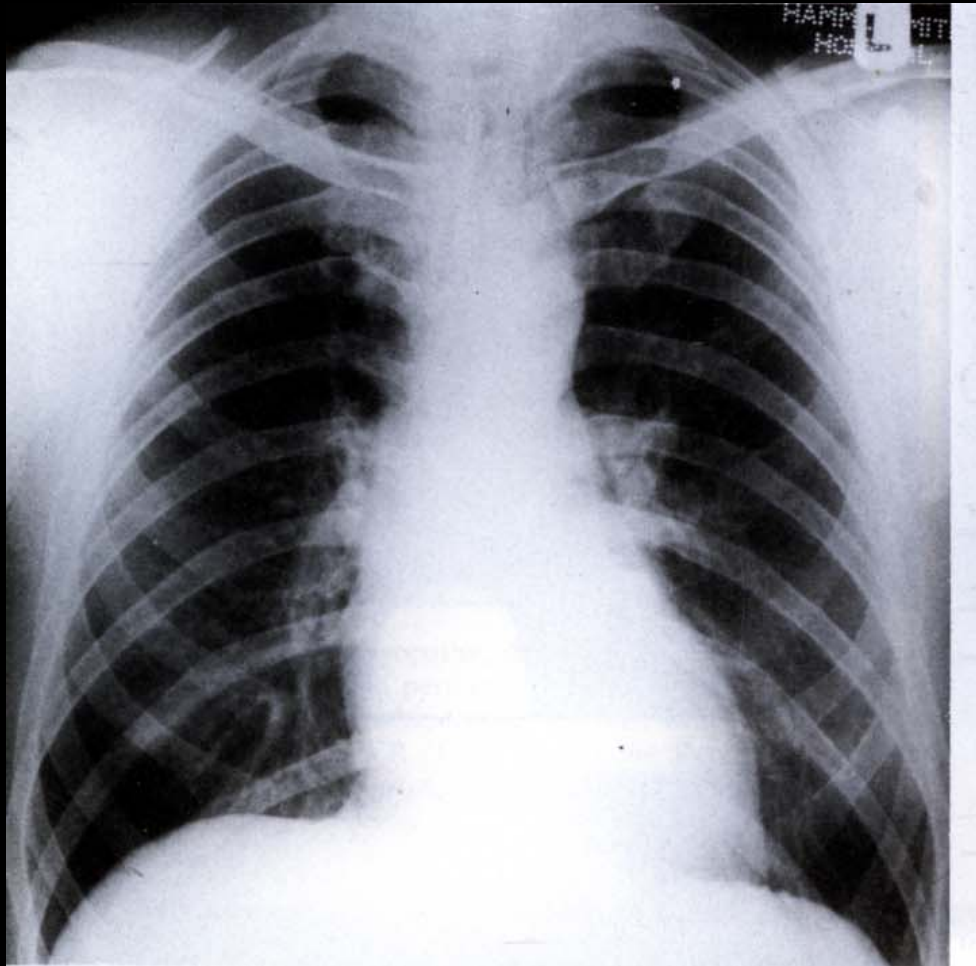




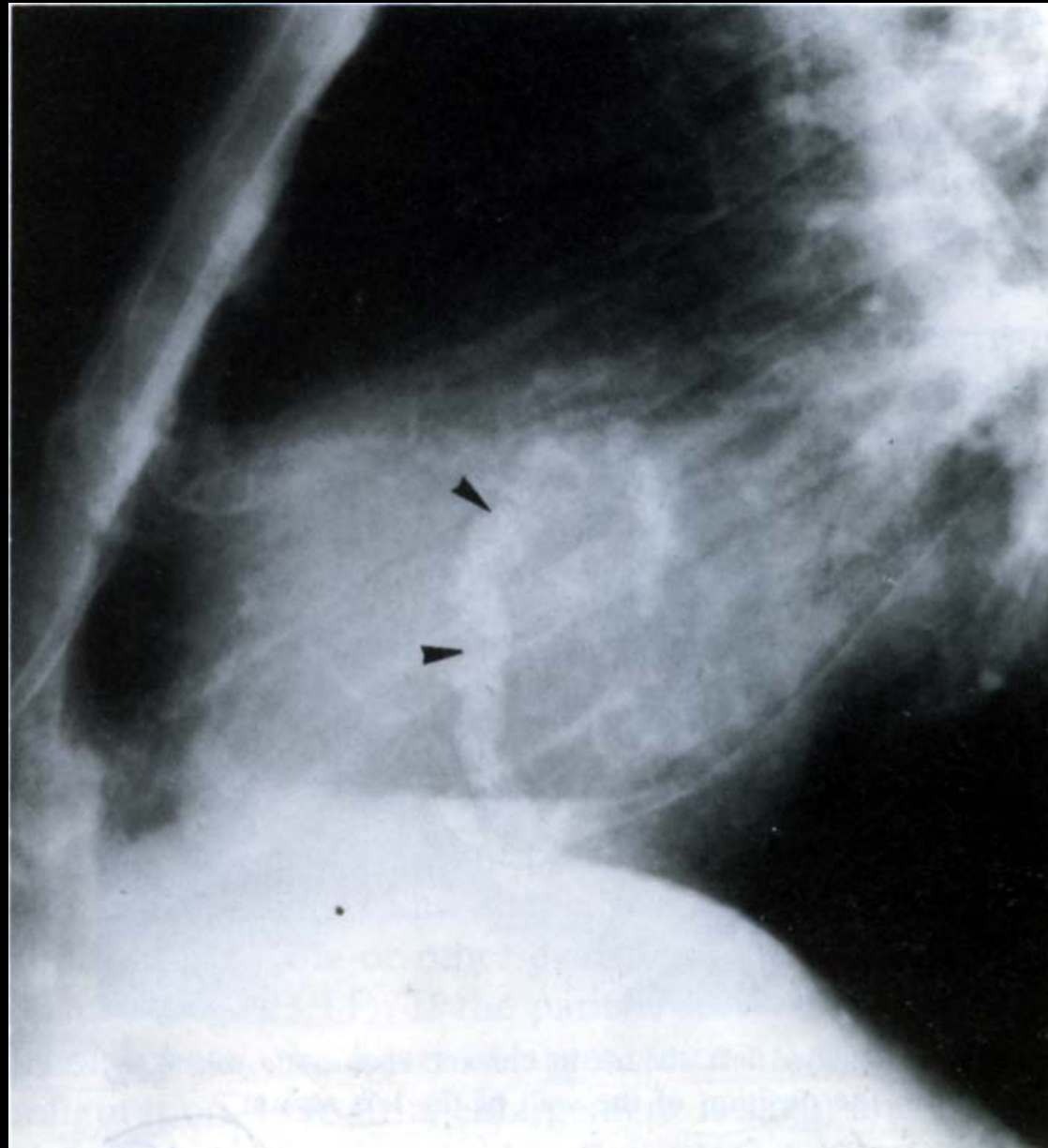
DD of Cardiac Calcifications

- **Constrictive Pericarditis**
- **Valvular Calcifications**
- **Calcified Ventricular Aneurysm**

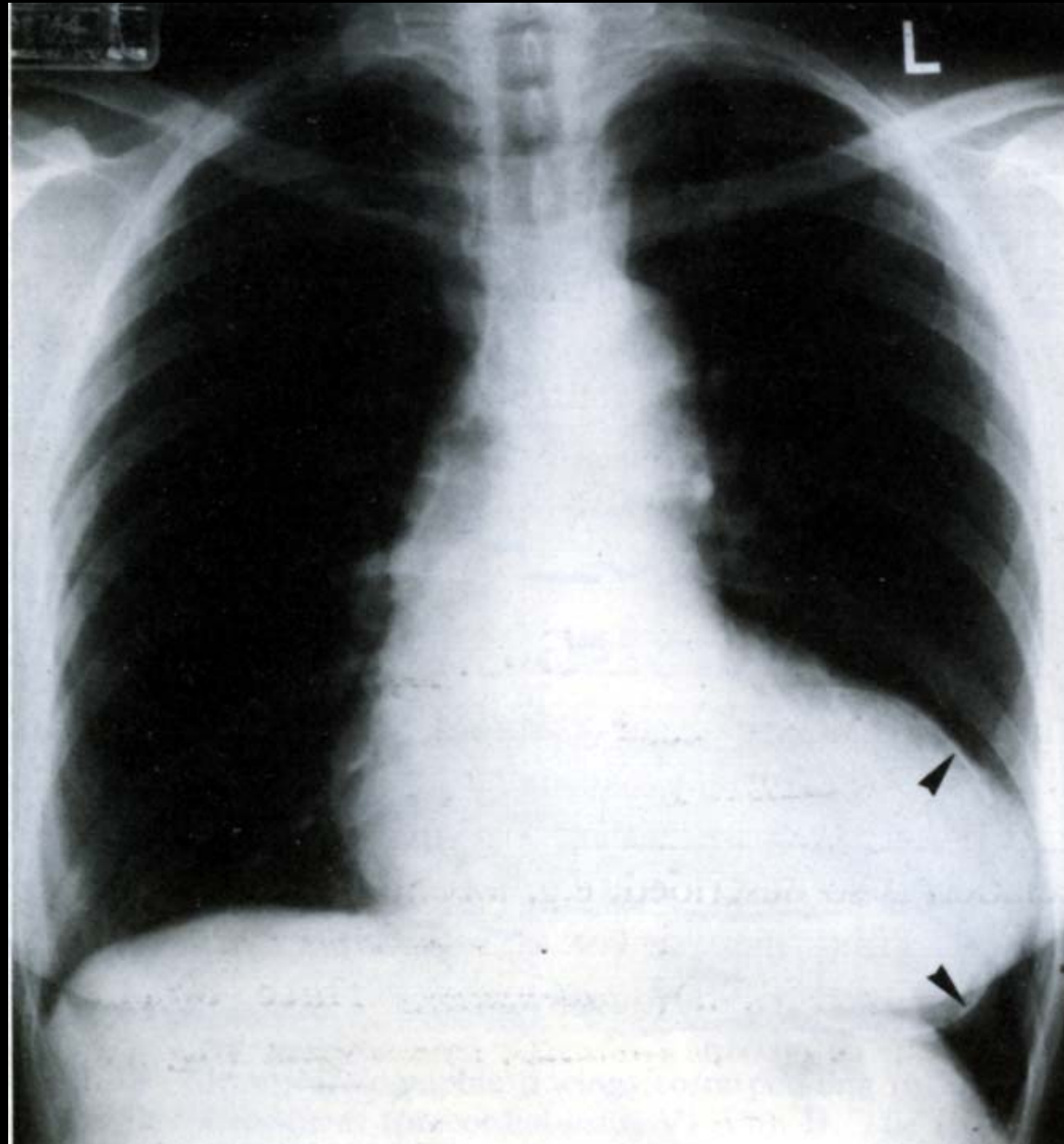
Constrictive Pericarditis



Valve Calcification



Calcified Ventricular Aneurysm

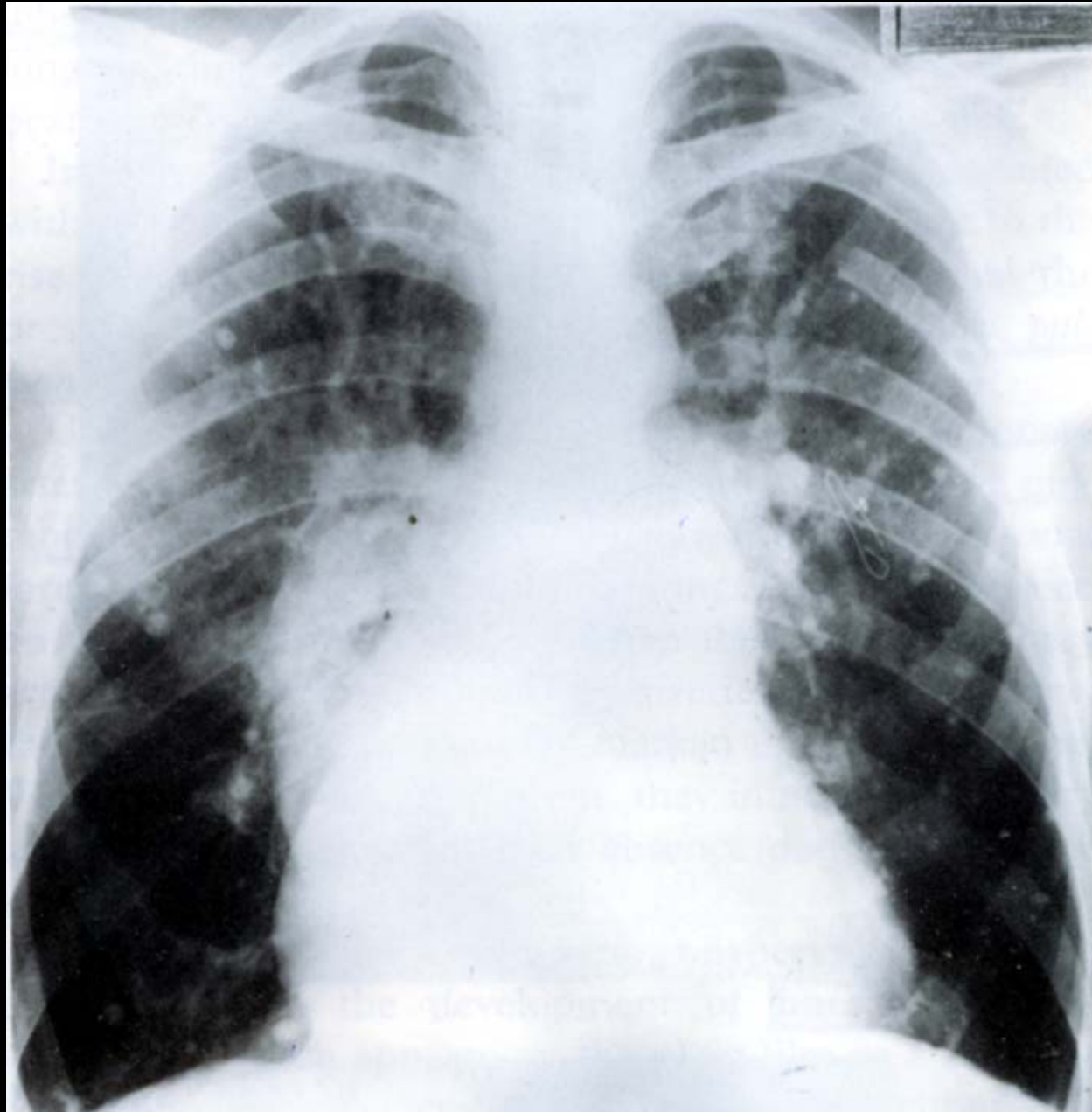




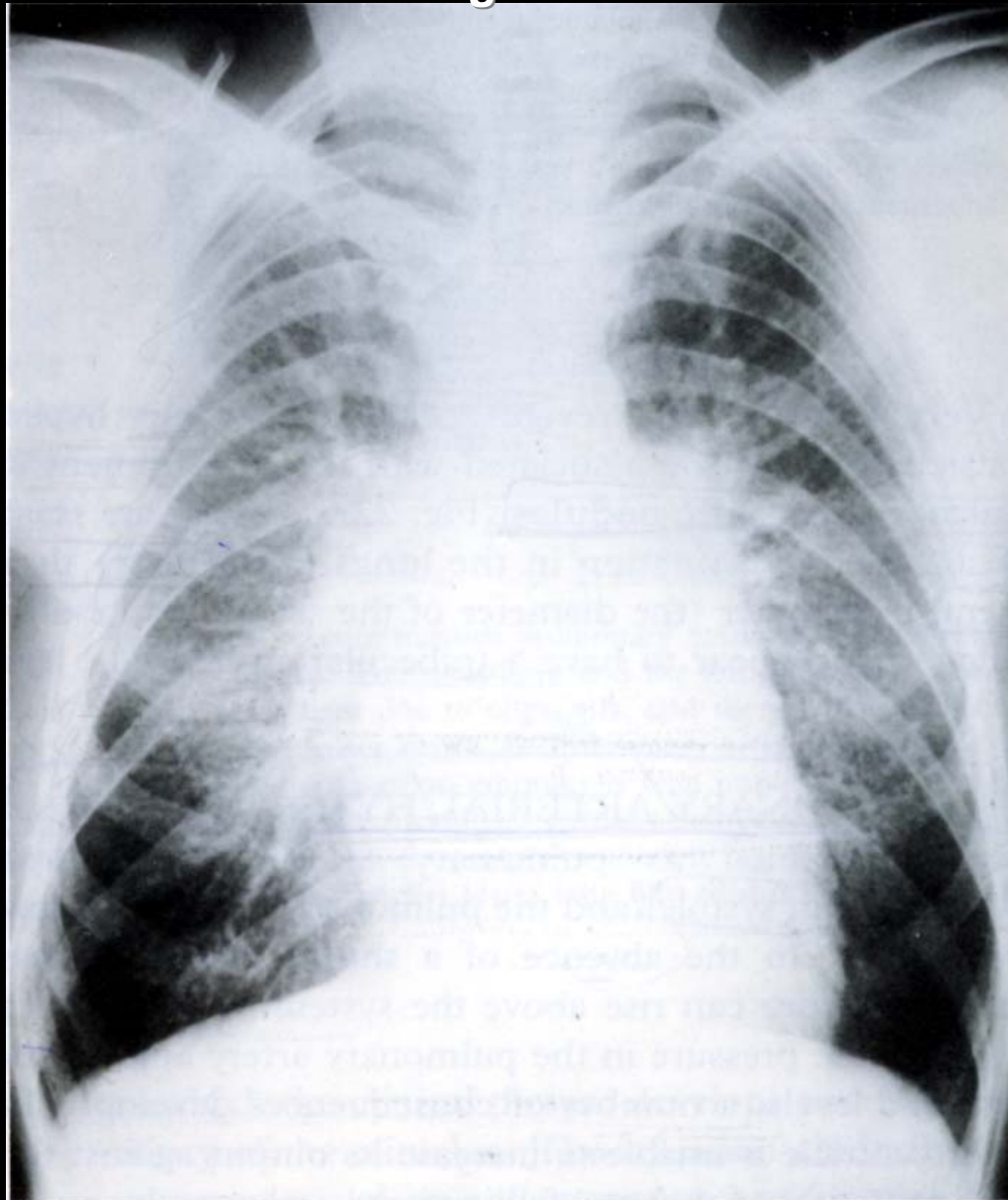
Radiological Manifestations of Left sided Heart Failure

- **Pulmonary Venous Congestion**
- **Pulmonary oedema**
- **Pulmonary Hypertension**
- **Pleural Effusion**

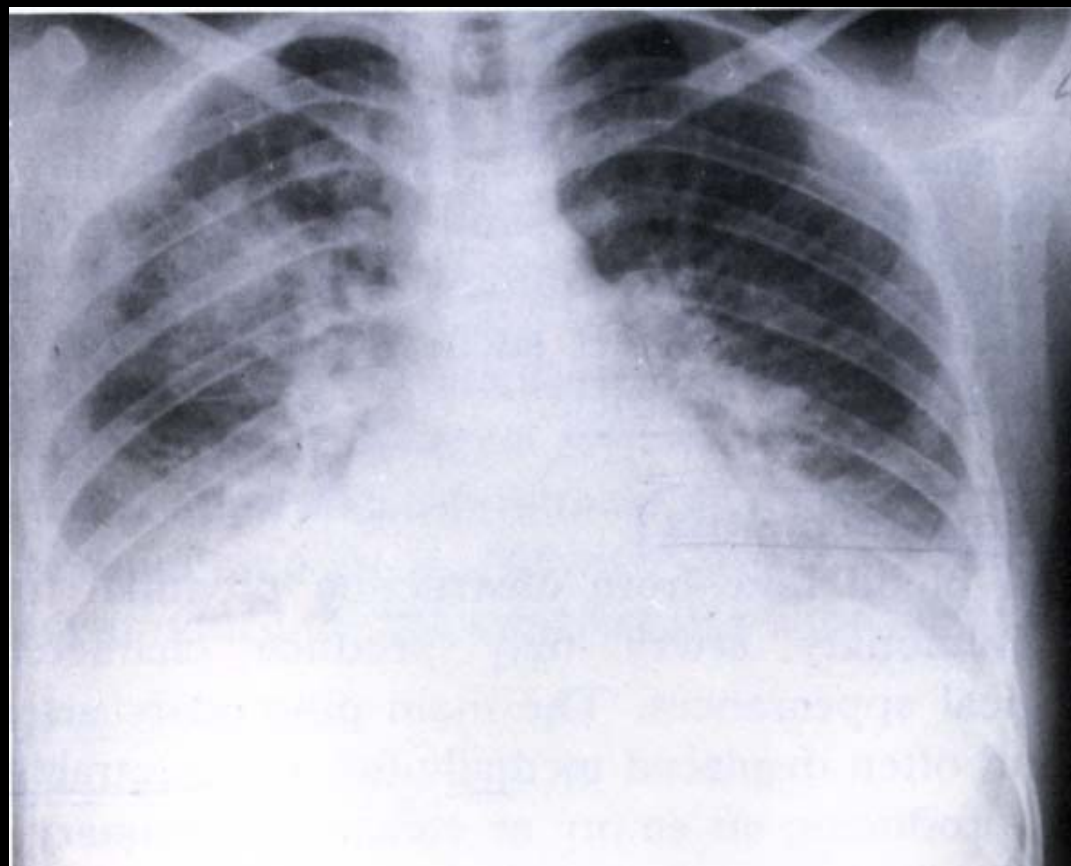
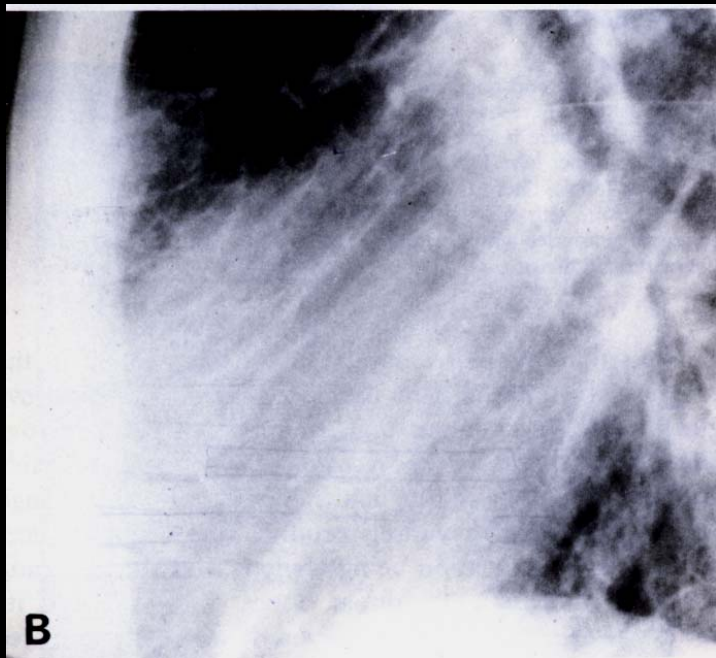
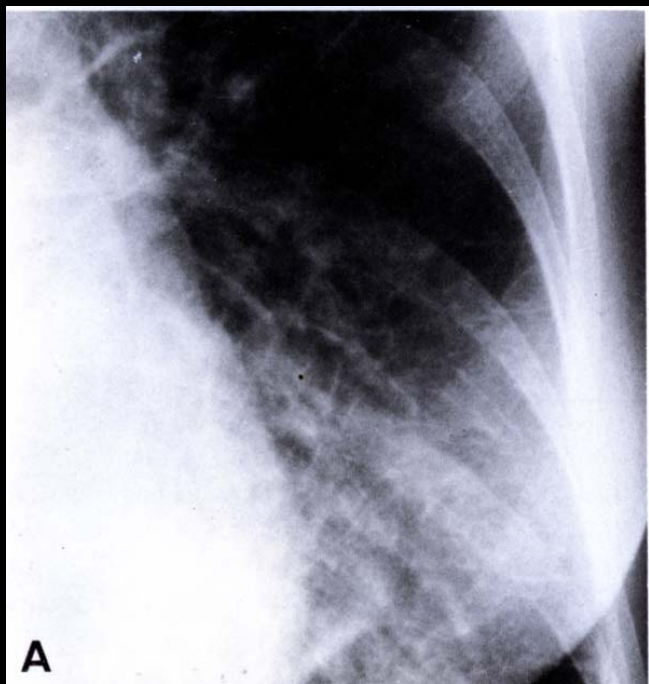
(1a) Pulmonary Venous Congestion



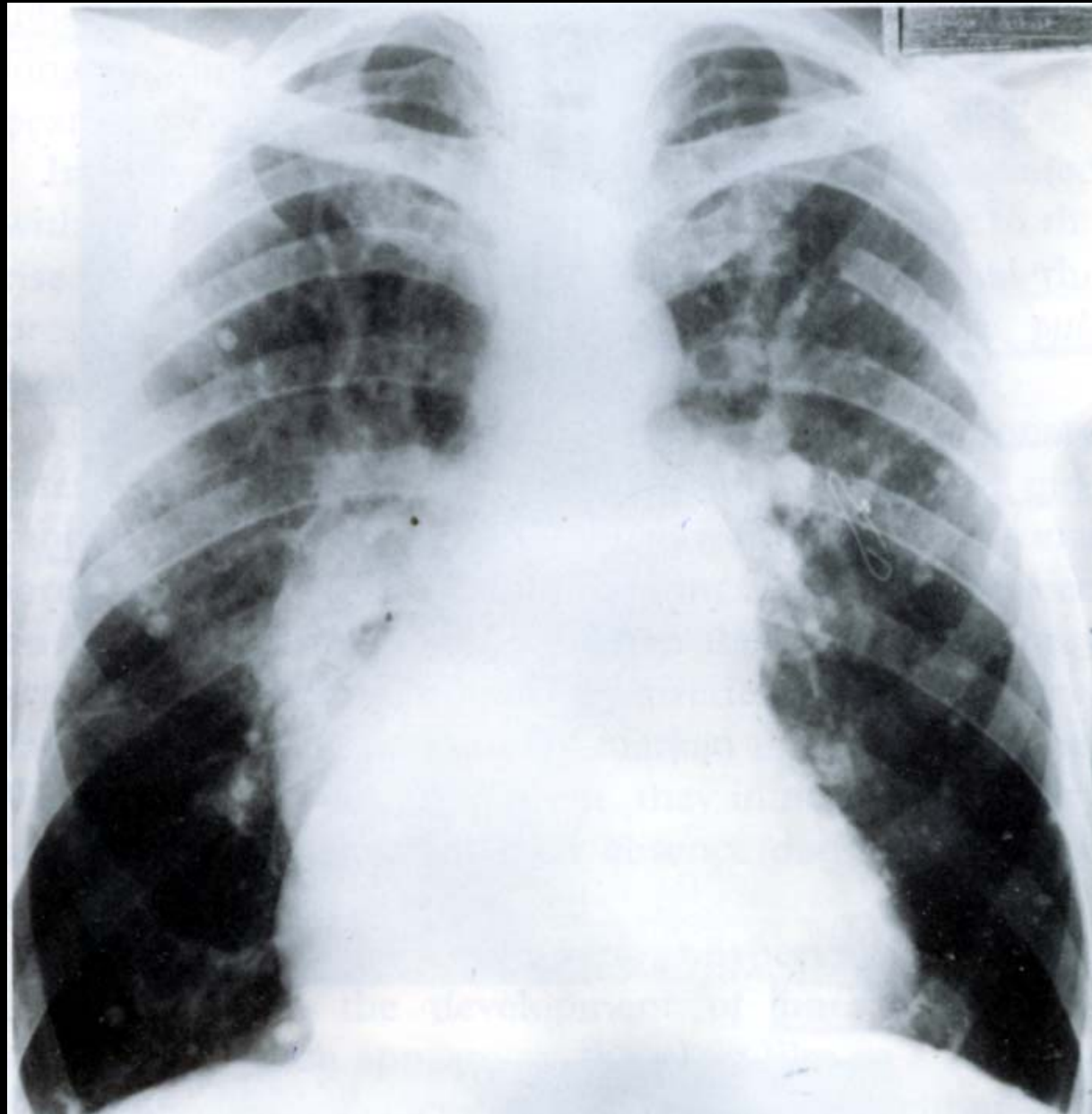
**(1b) Long standing Pulmonary Venous
Congestion**



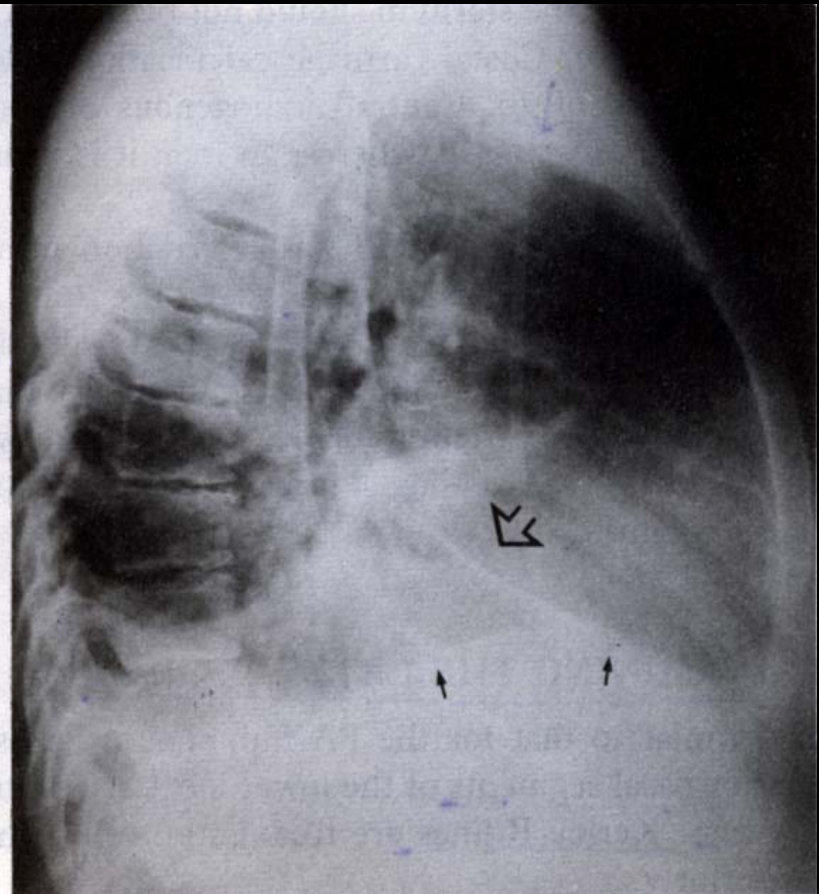
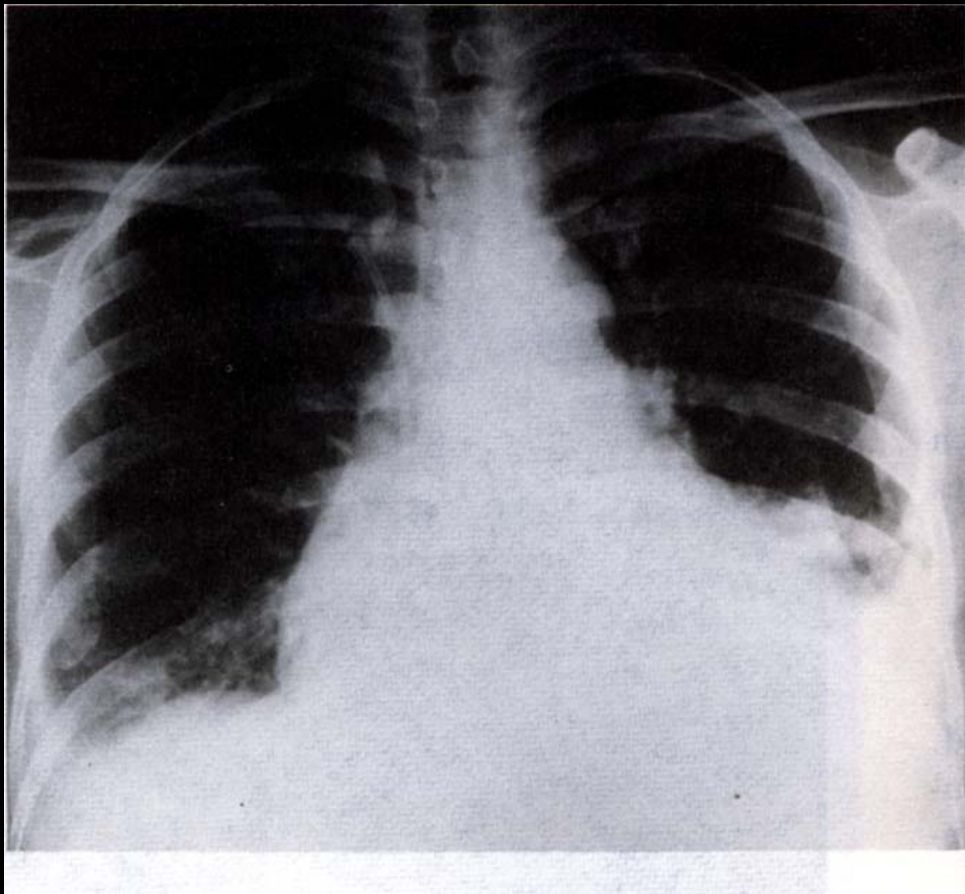
(2) Pulmonary Oedema



(3) Pulmonary Hypertension



(4) Pleural Effusion



Thank You

