

⁵²Teaching
⁸⁸Rad



Each week on the ESR blog
blog.myESR.org

The lateral chest radiograph

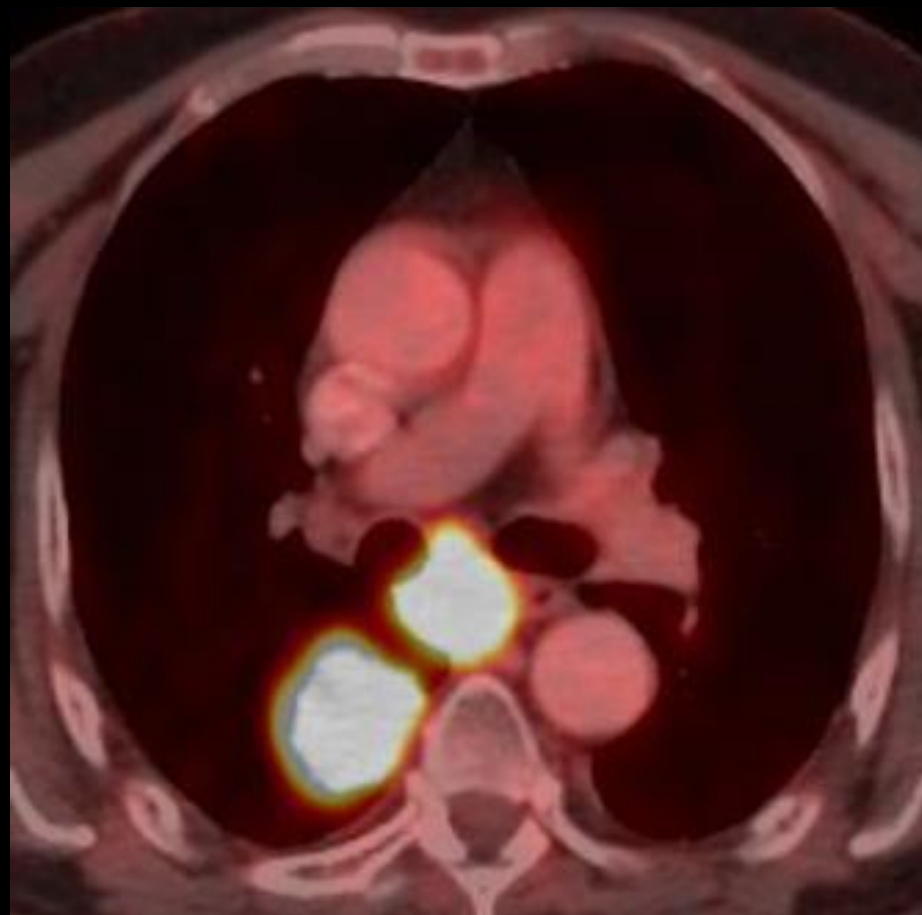
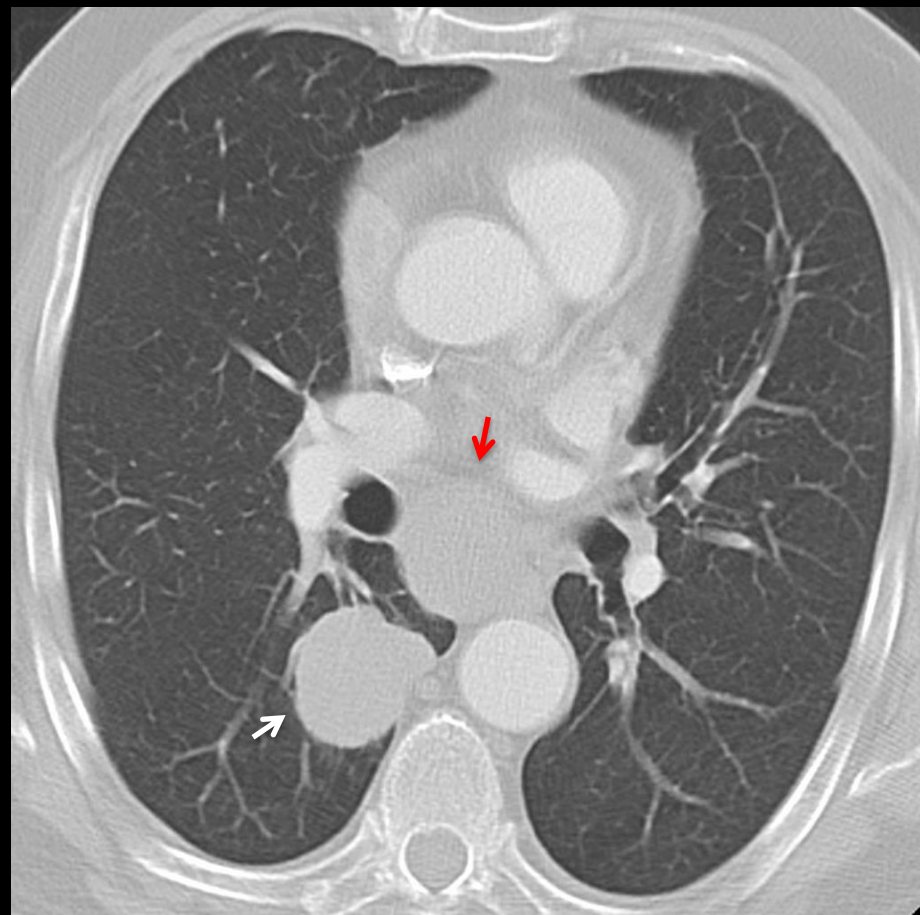
CASE 1



61 y.o. man with hemoptysis. Do you see any lesion?

1. Yes
2. No
3. Want a lateral view

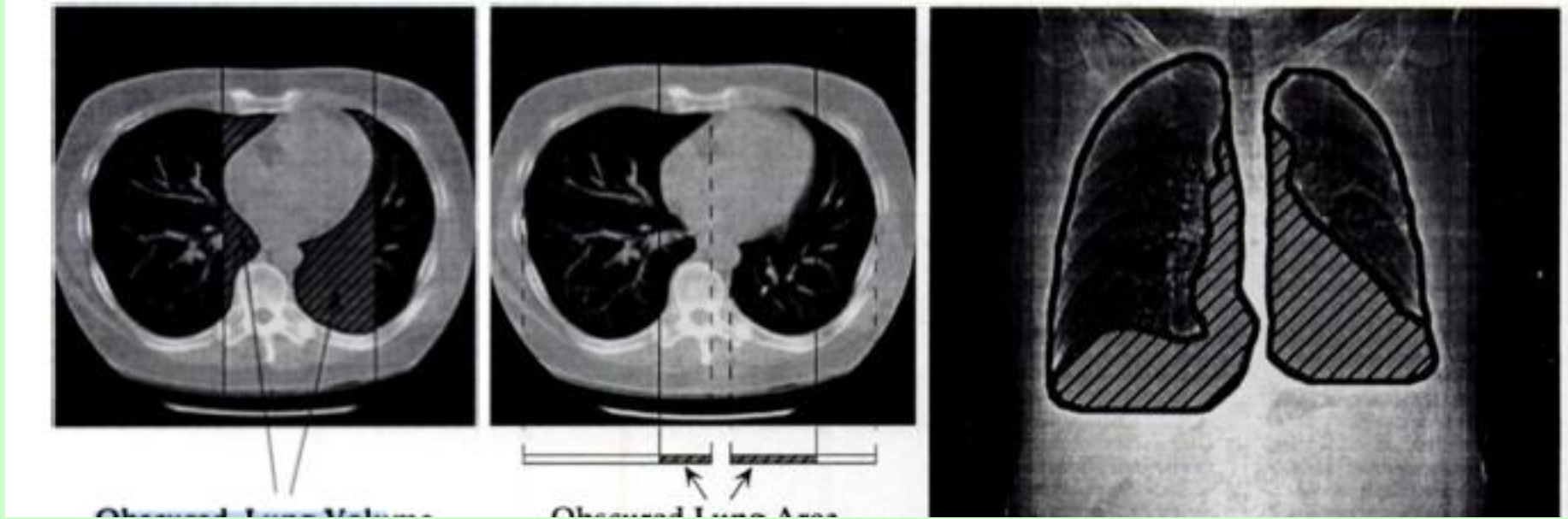




Carcinoma with metastases to subcarinal lymph nodes

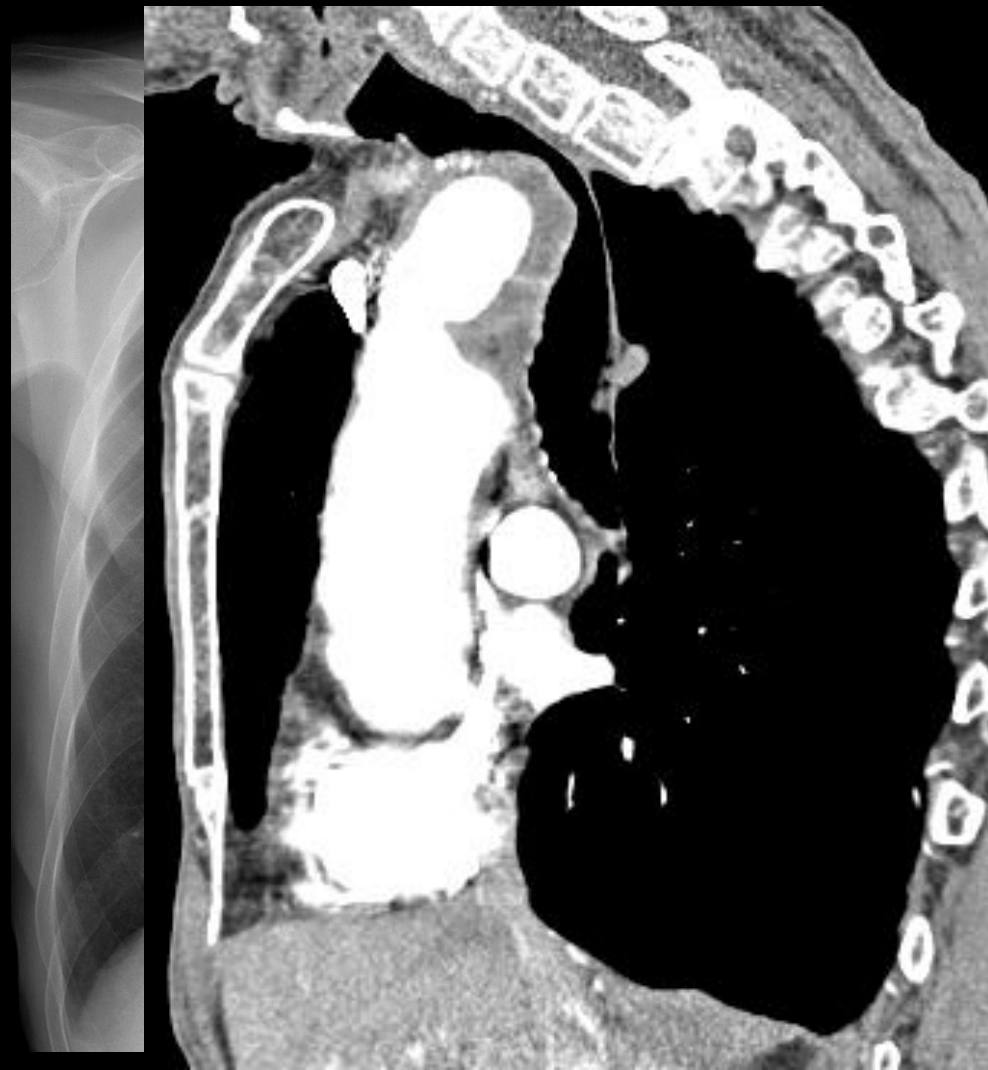
Role of the lateral chest radiograph

- 1. To detect lesions not visible in the PA view**
- 2. To clarify obscure lesions in the PA view**

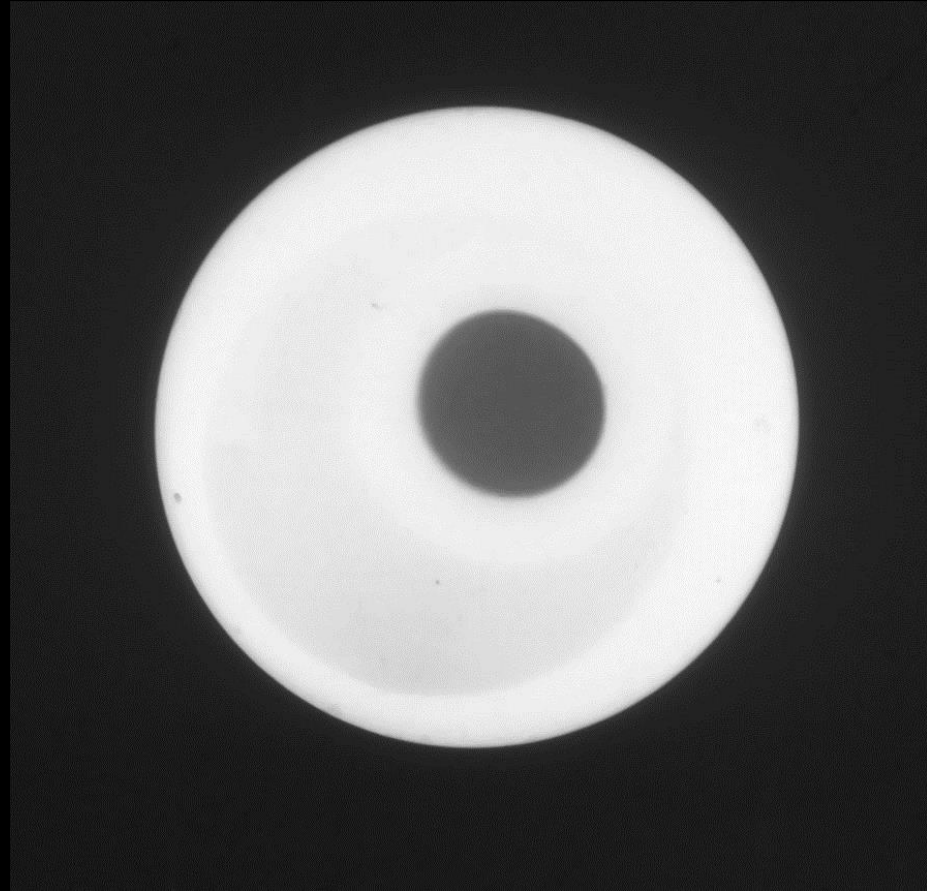
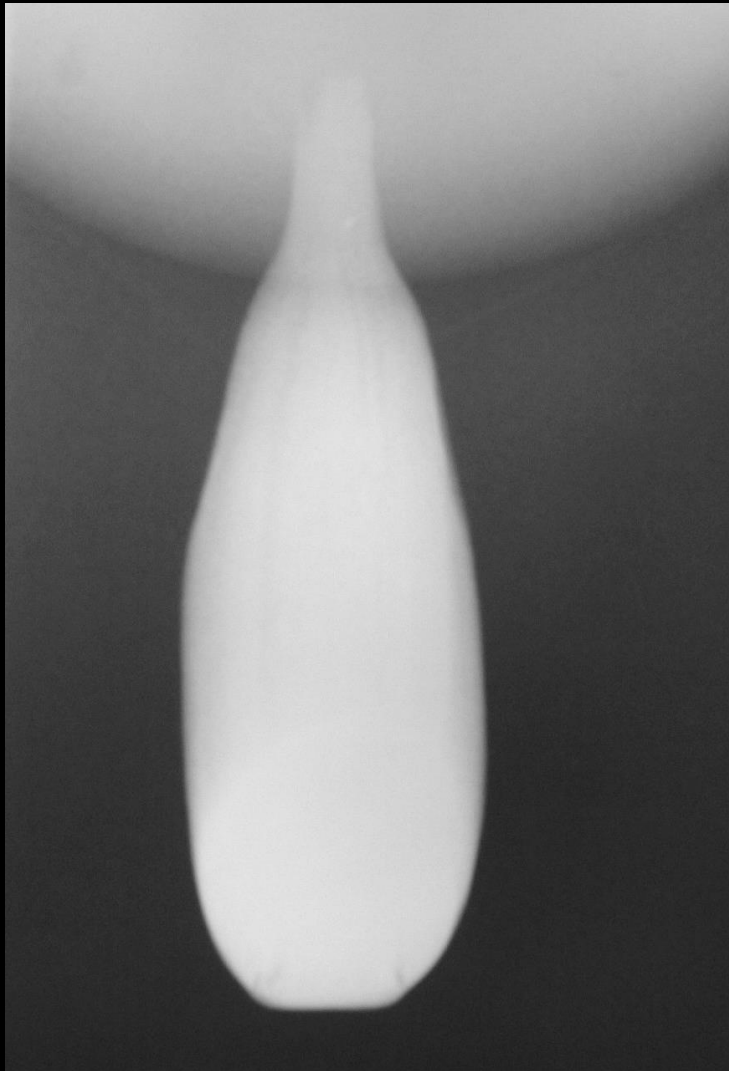


Chotas HG, Ravin CE. *Radiology*, November 1994

“On average, 26.4% of the lung volume was obscured by cardiac, mediastinal and subdiaphragmatic structures”

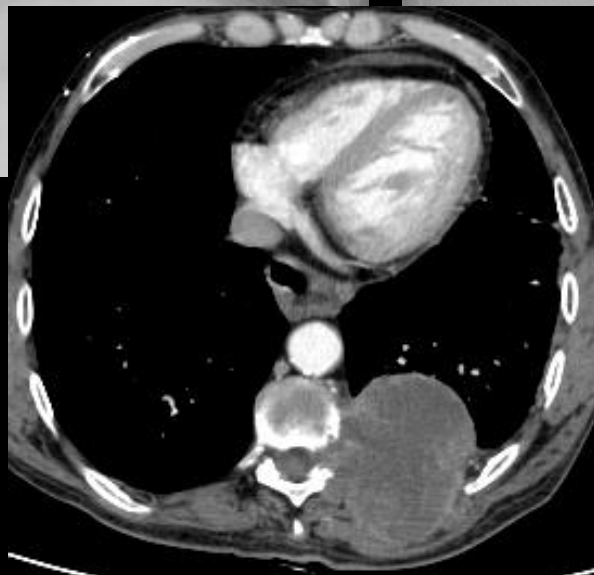
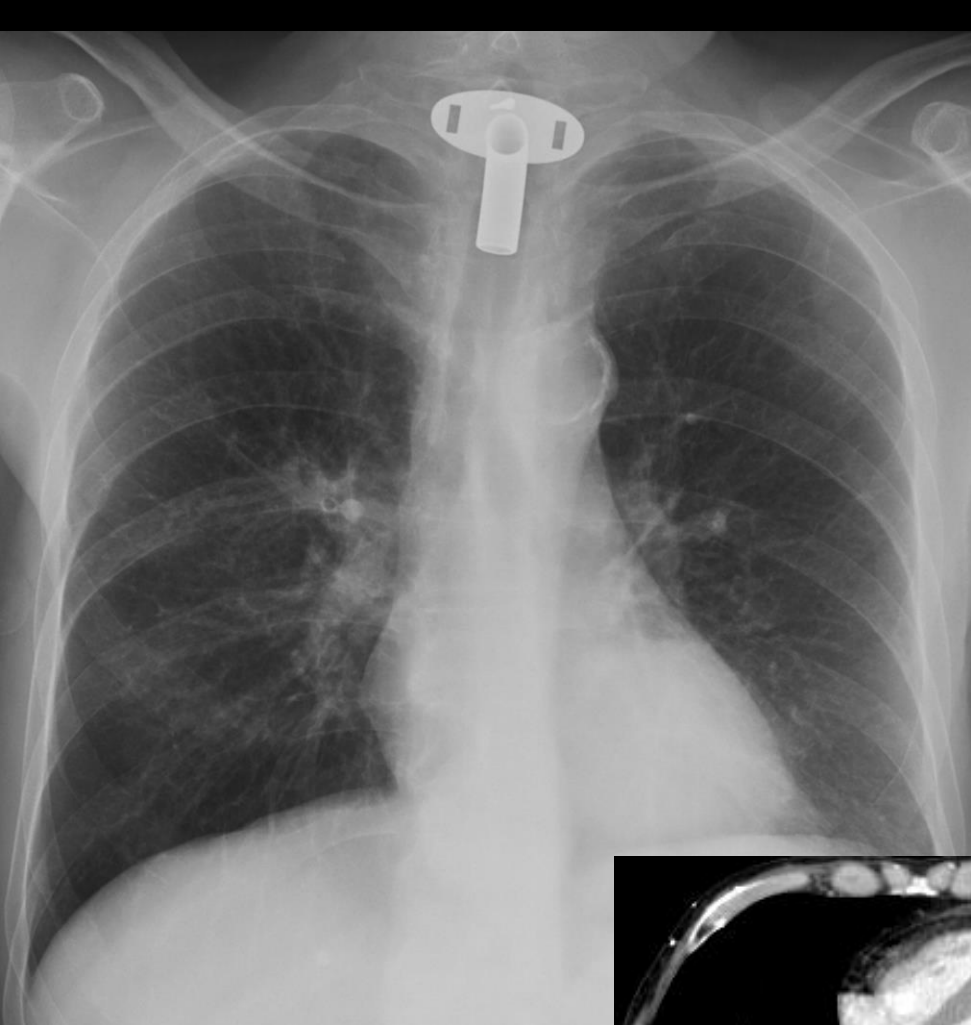


Aneurysm of right brachiocephalic artery impinging on the trachea



Radiographs of two different familiar objects. Can you guess what they are?





Metastases from carcinoma of the larynx

59 y.o. man with cough and fever

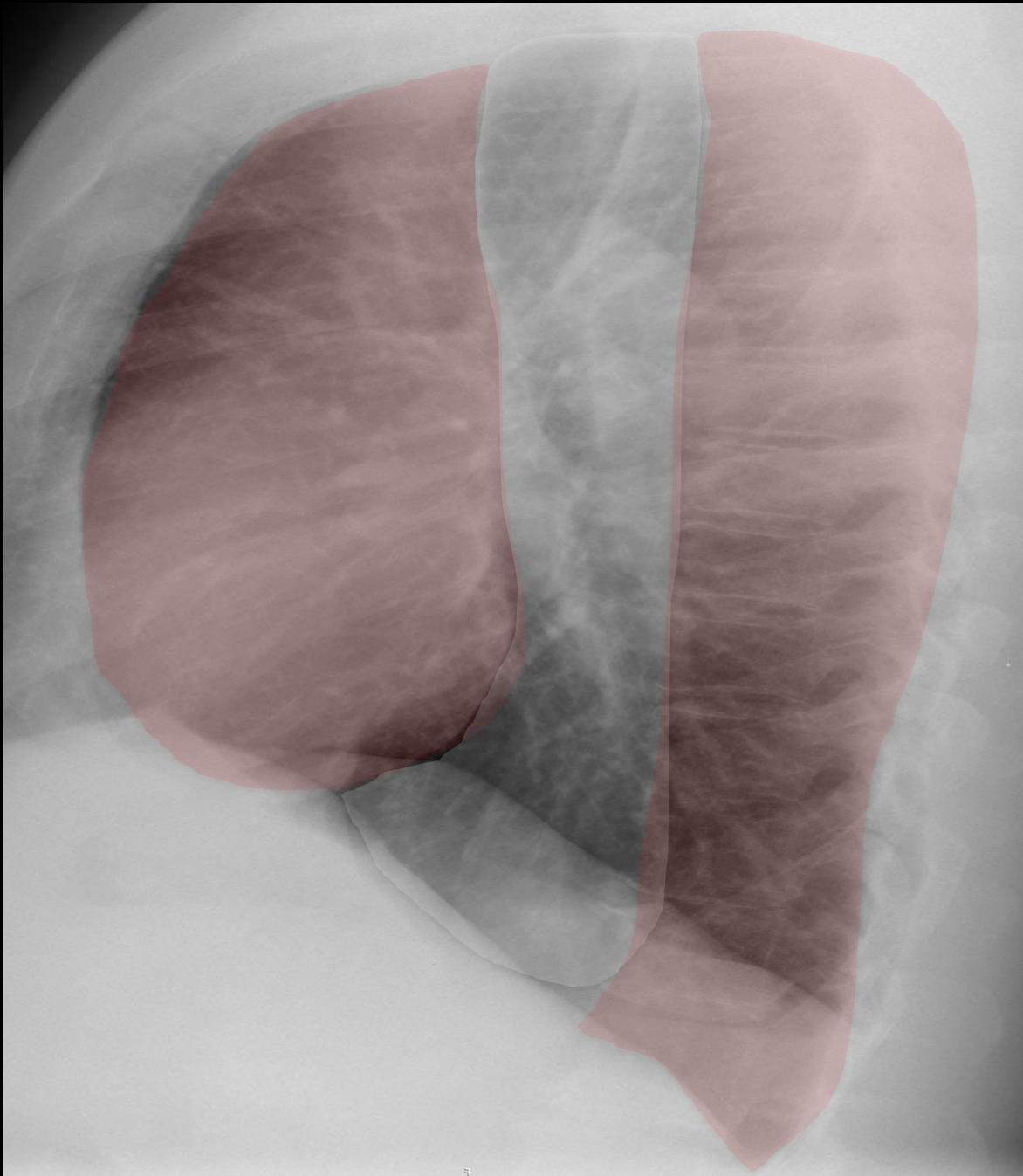


Loculated empyema after pneumonia

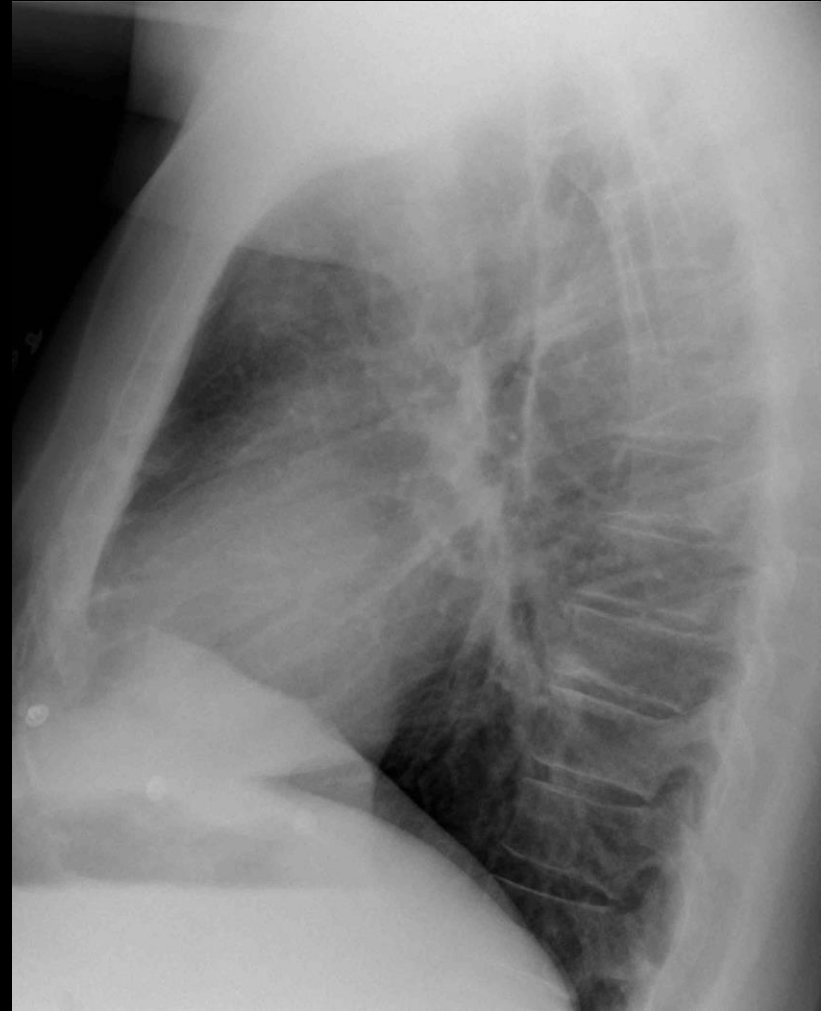
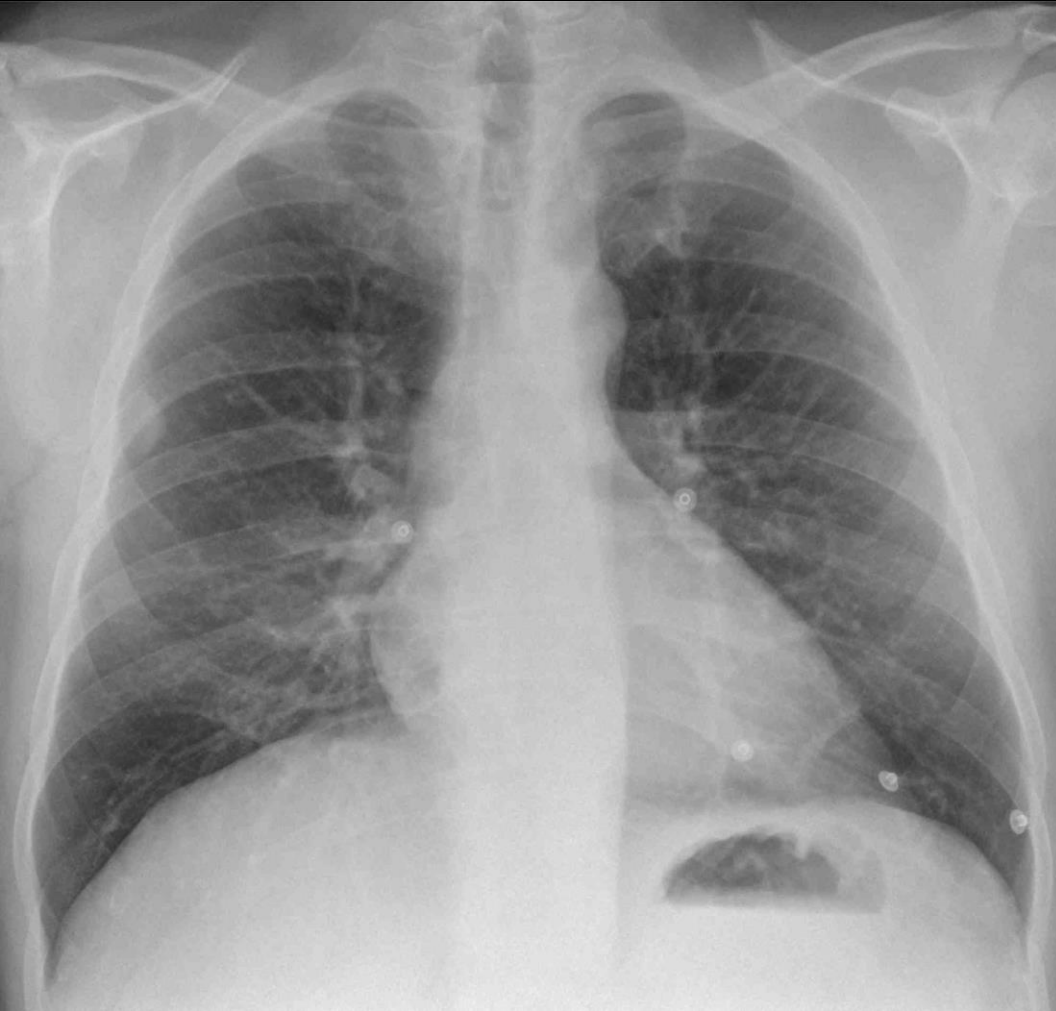
59 y.o. man with cough and fever



Loculated empyema after pneumonia

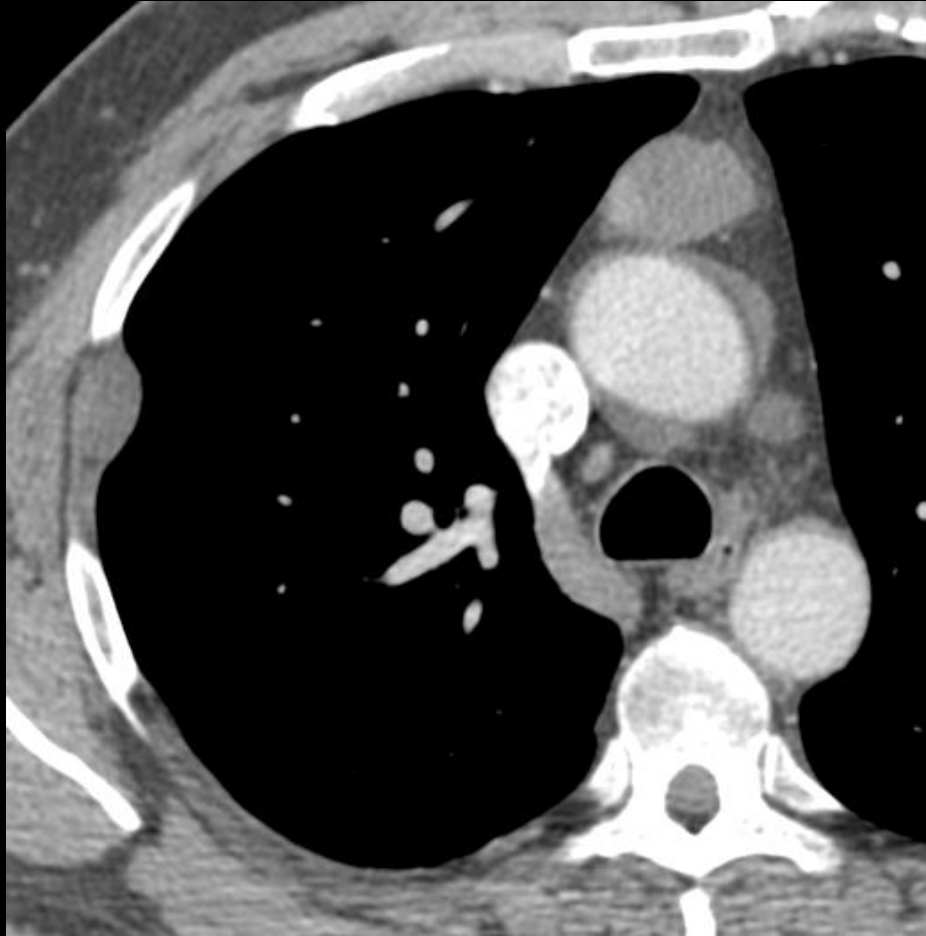


42 y.o. man with pain in right hemithorax

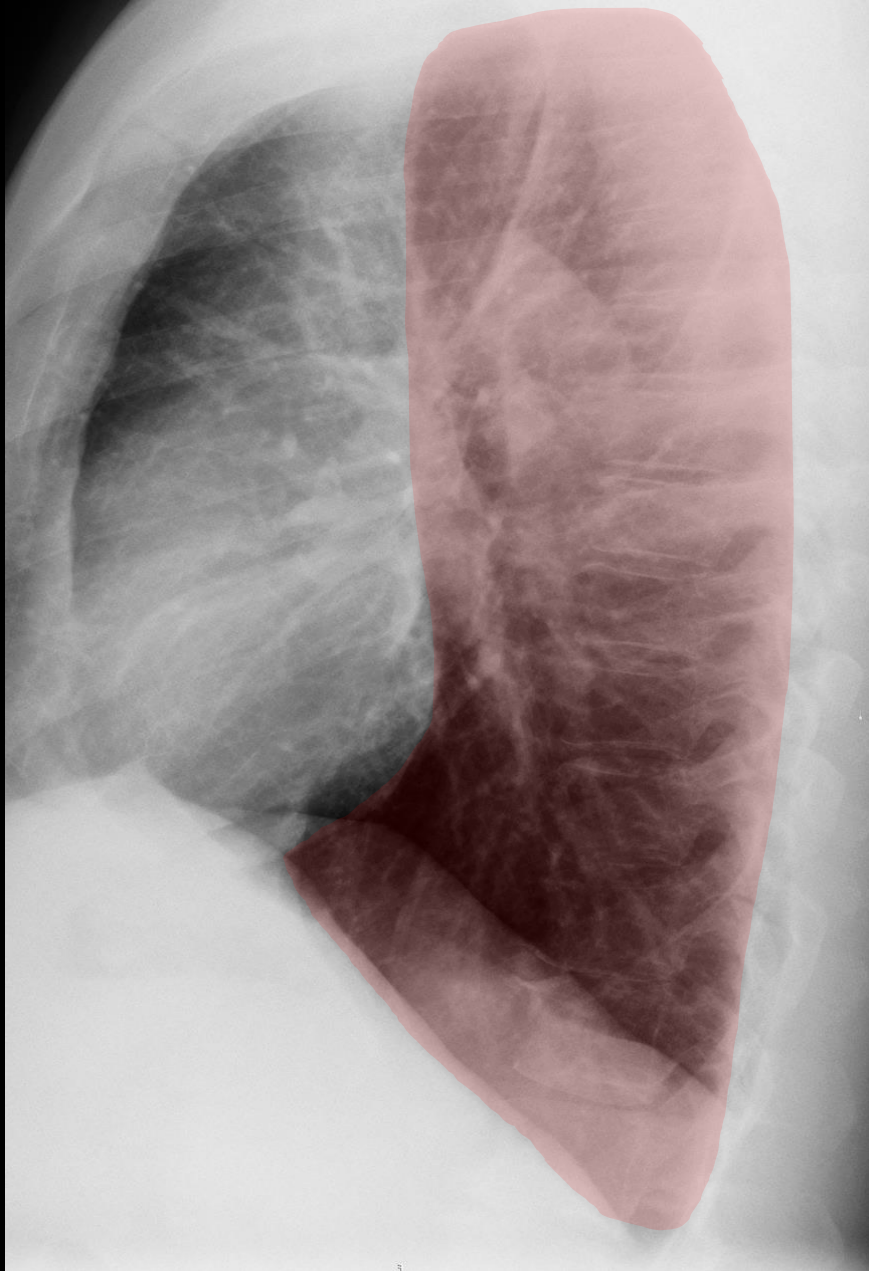


Most likely diagnosis:

1. Neurogenic tumor
2. Fibrous pleural tumor
3. Metastatic pleural nodule
4. Any of the above



Benign thymoma and unrelated neurofibroma



ANTERIOR AREA BASIC CHECKLIST:

Sternum - Osseous lesions, pectus excavatum

Anterior clear space - Look for opacities

Heart - Size, contour and calcifications

48 y.o. man with cough and fever

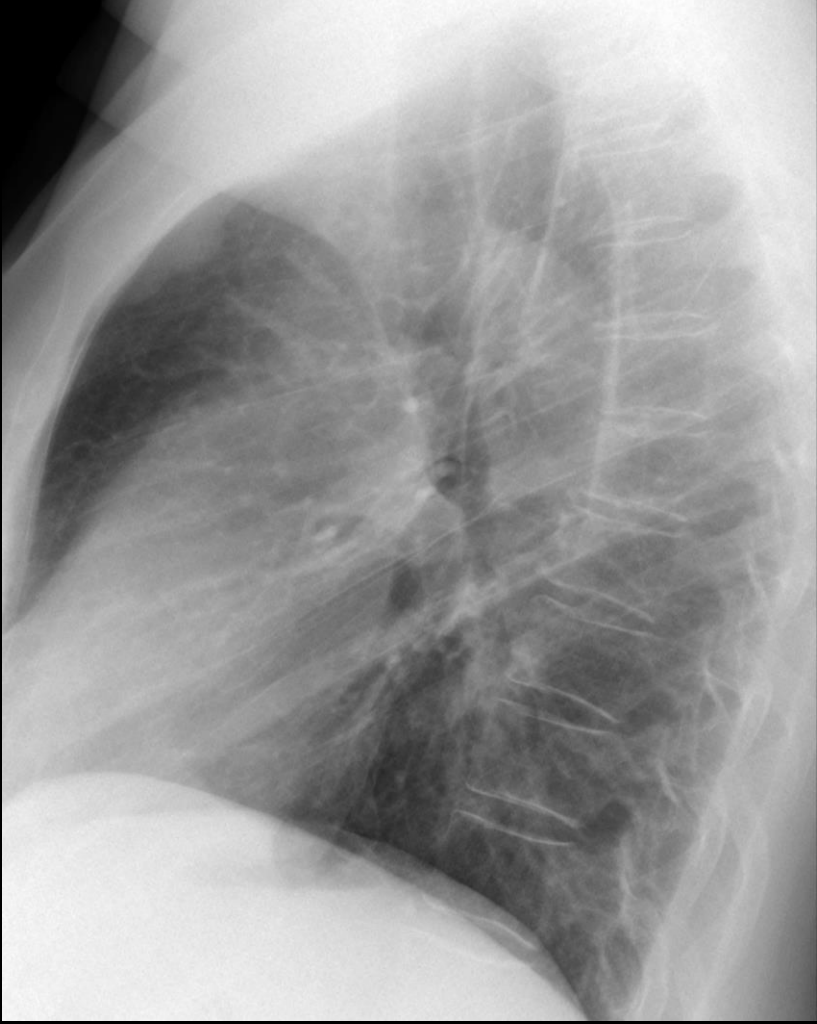


48 y.o. man with cough and fever

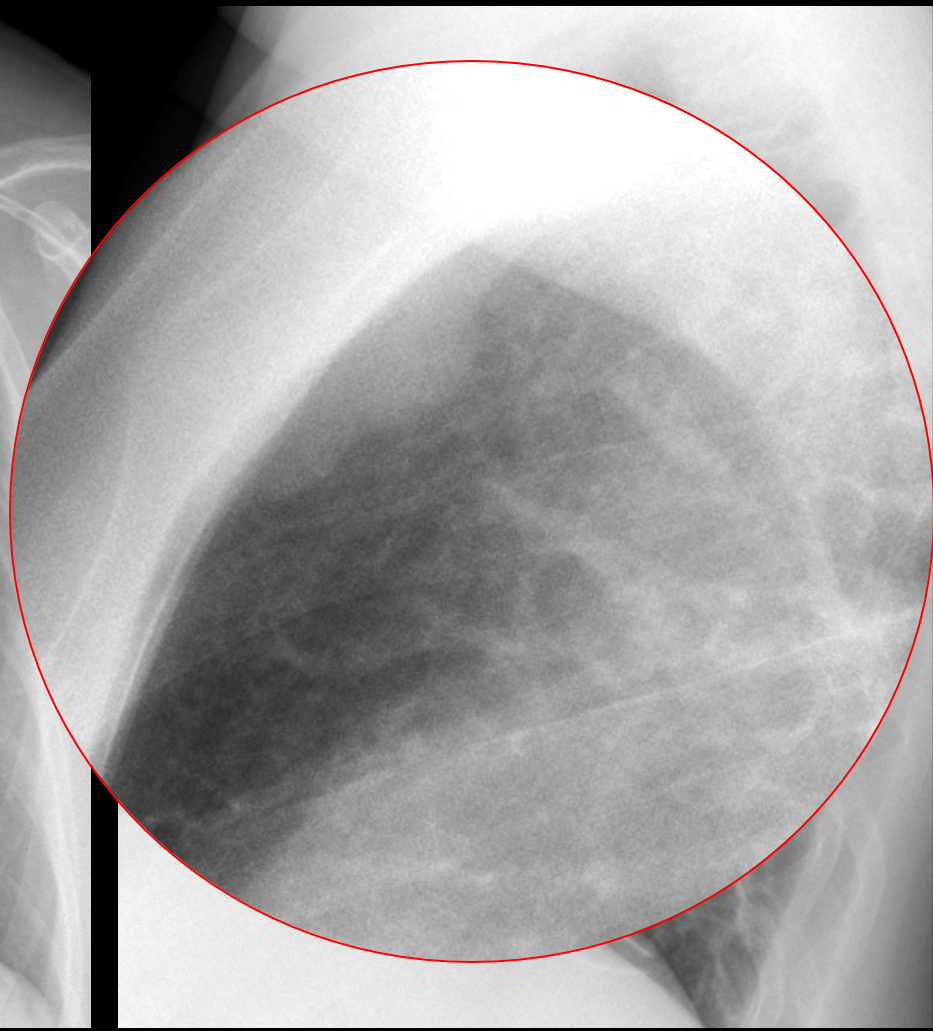
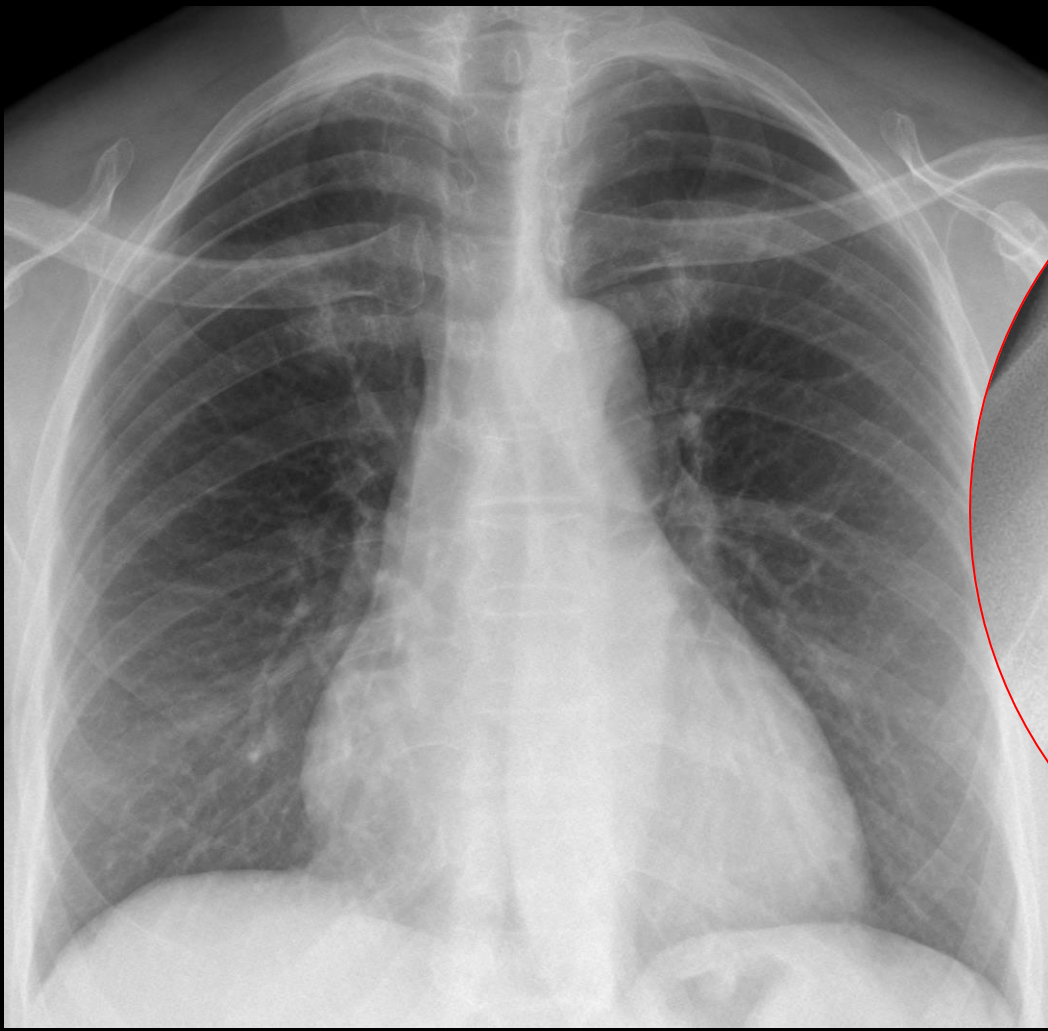
Two weeks later

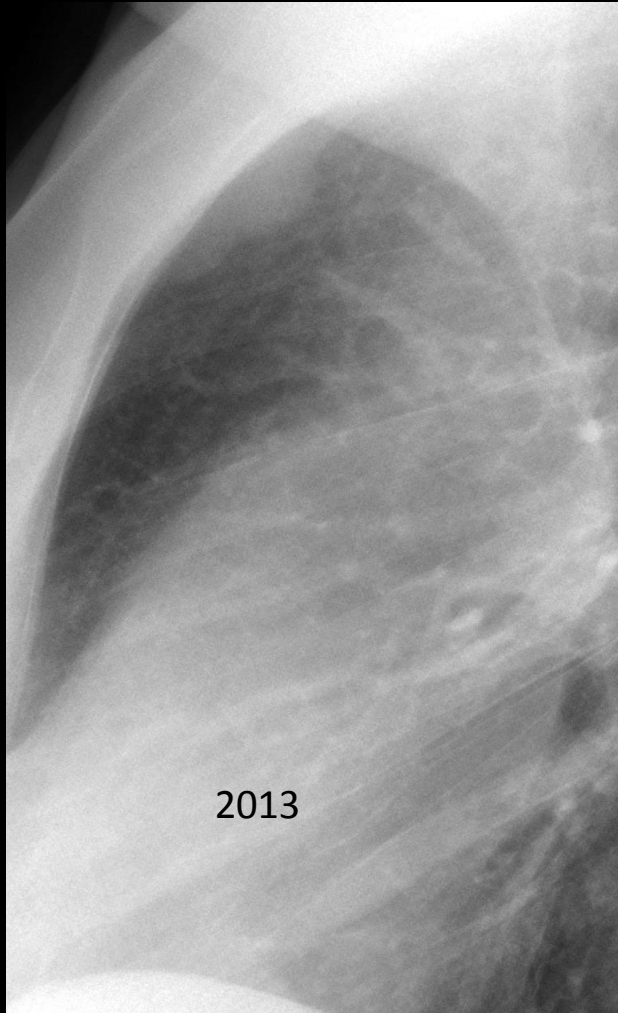
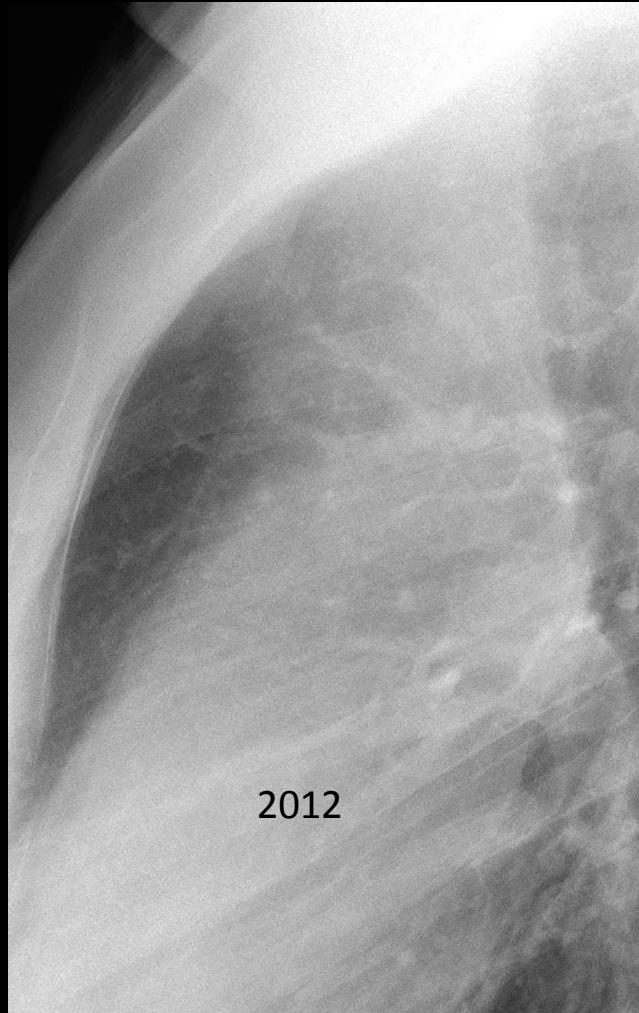


Routine annual chest films in a 54 y.o. woman operated for breast carcinoma five years ago



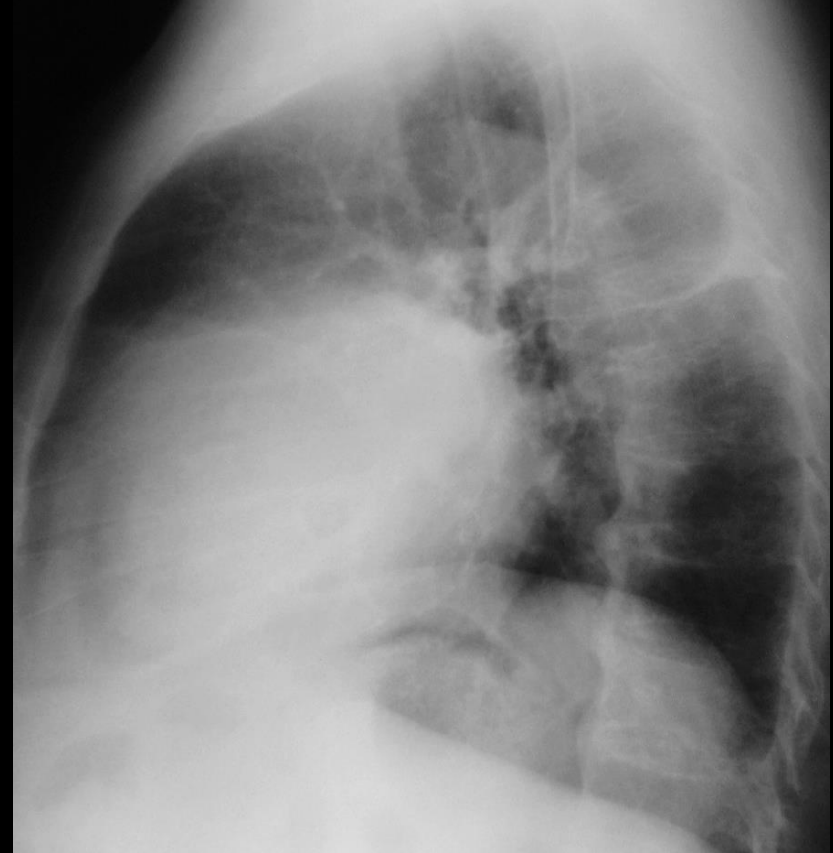
Routine annual chest films in a 54 y.o. woman operated for breast carcinoma five years ago



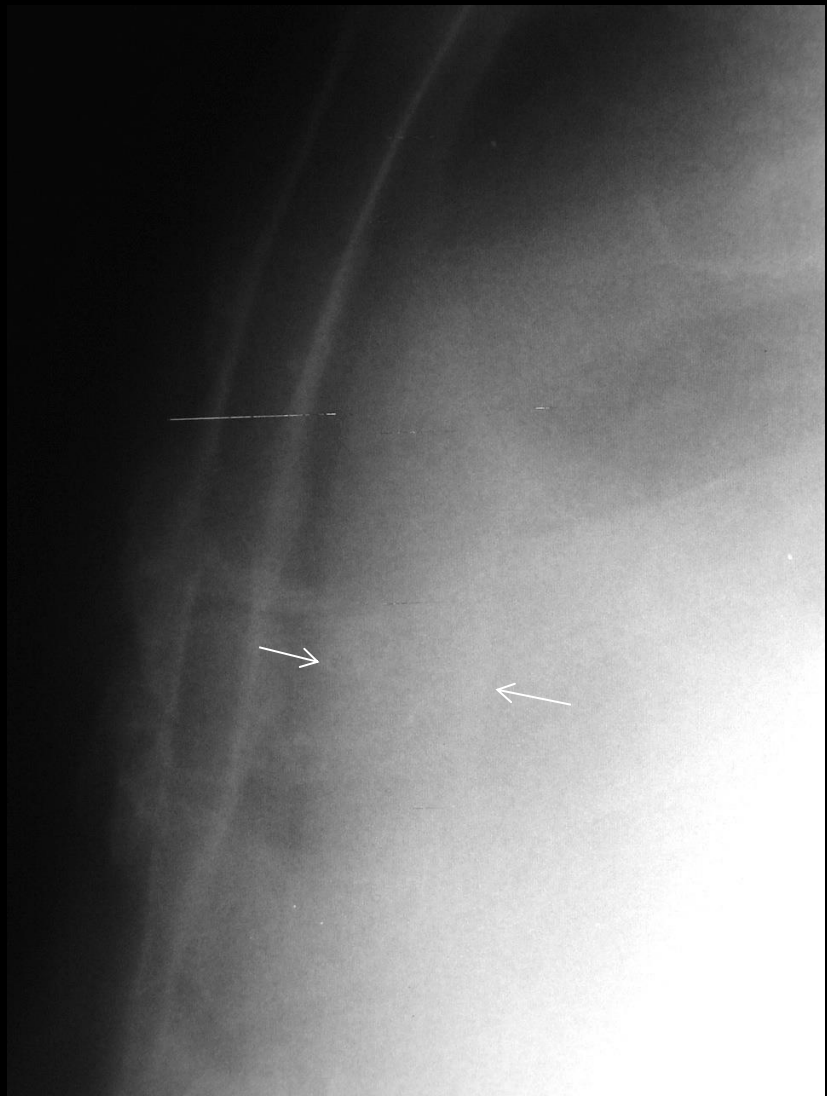
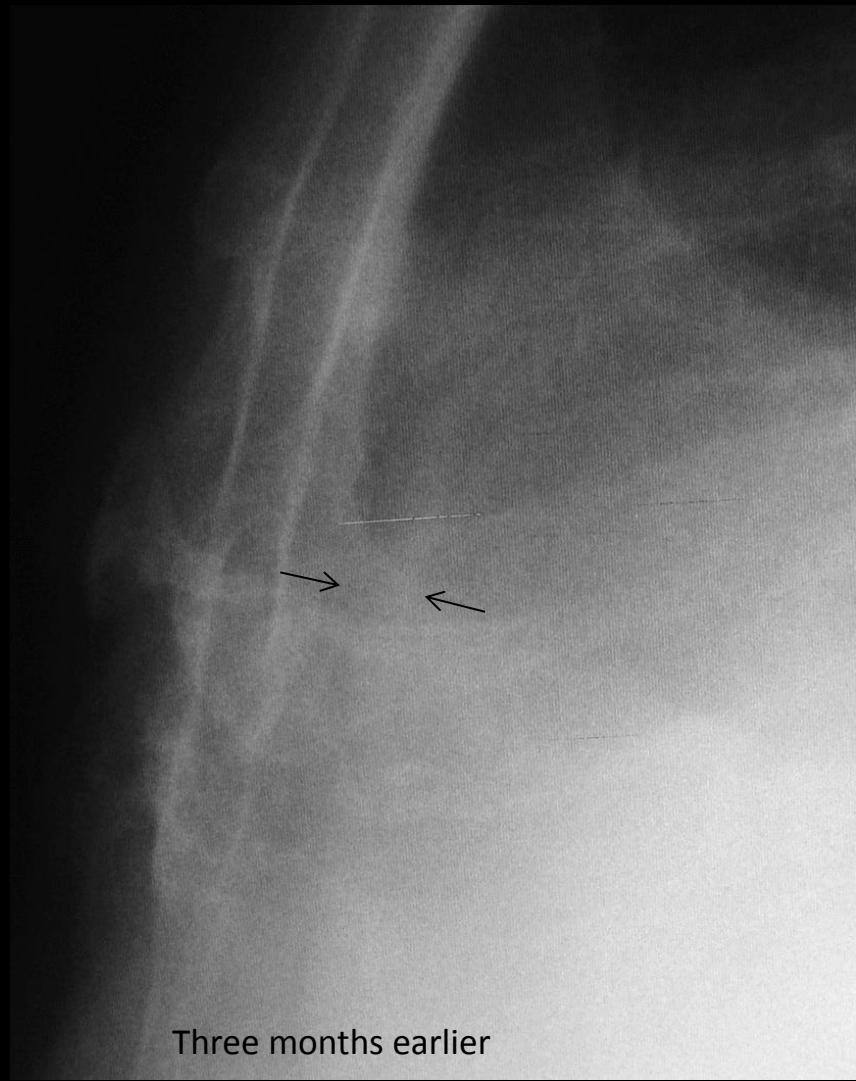


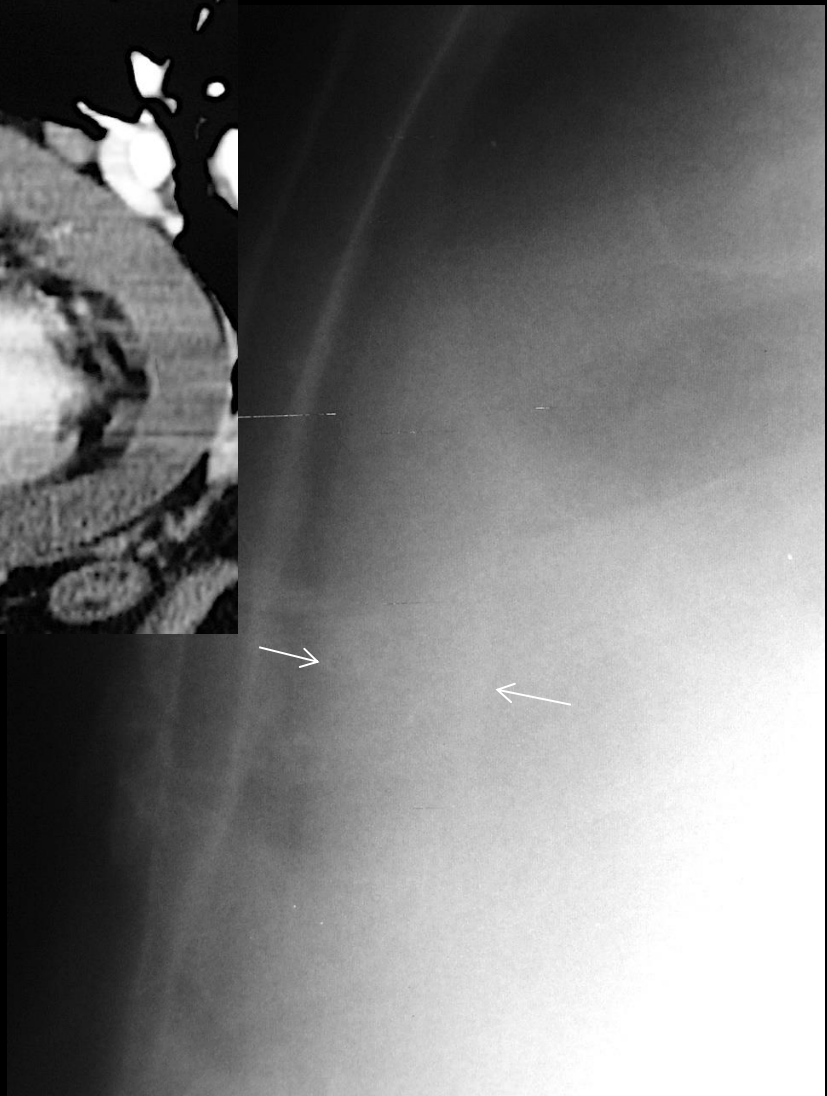
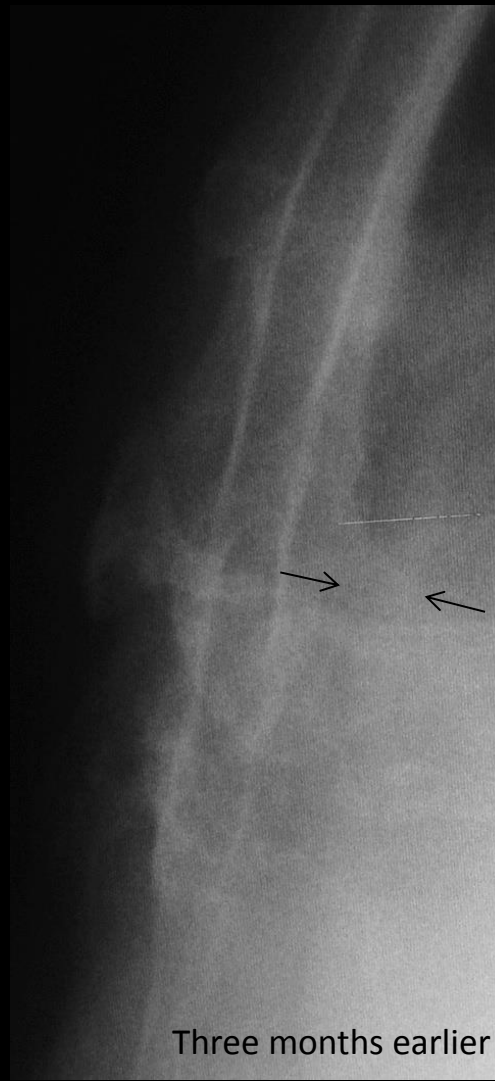
Metastatic mammary lymph nodes

53 y.o man with chest pain



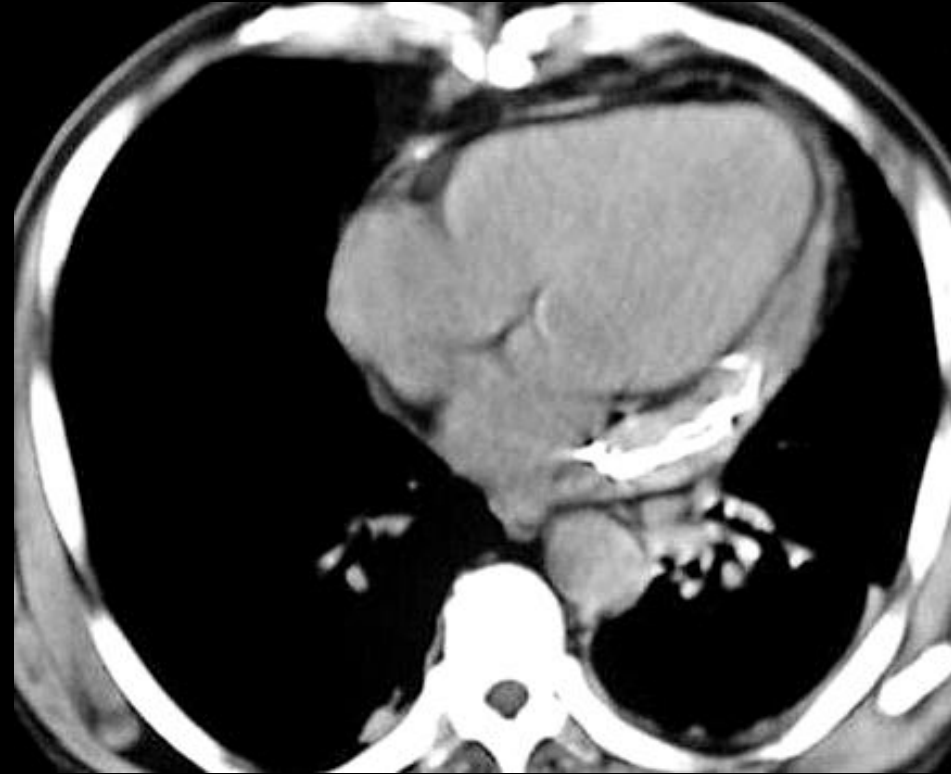
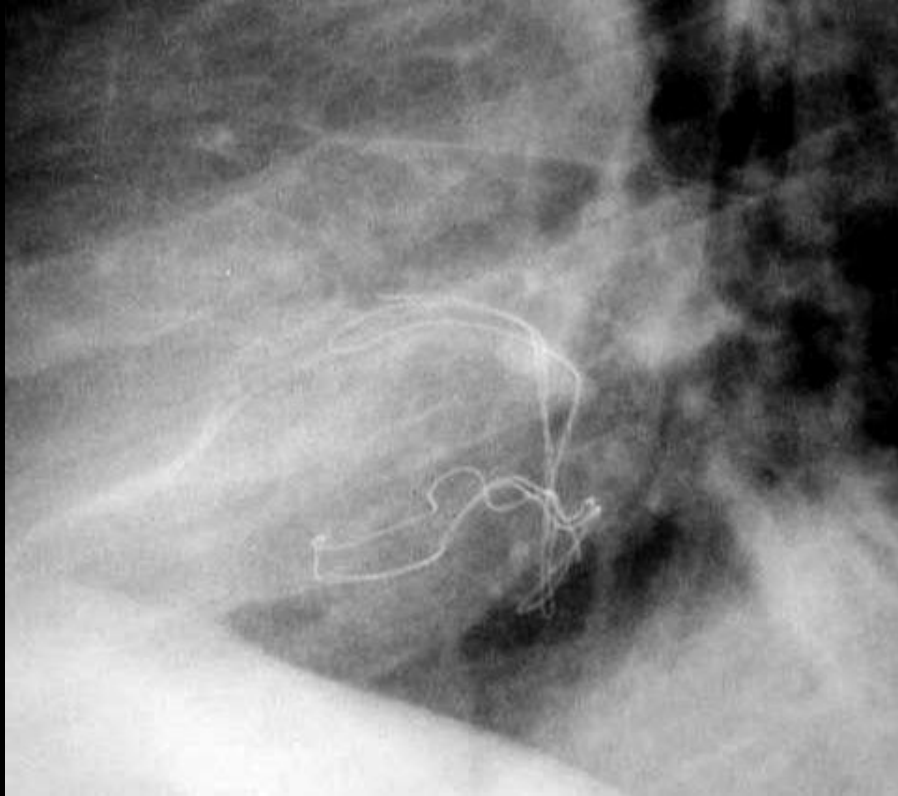
- Diagnosis:
1. Mitral disease
 2. Pericardial effusion
 3. Myocardiodopathy
 4. Mediastinal tumor





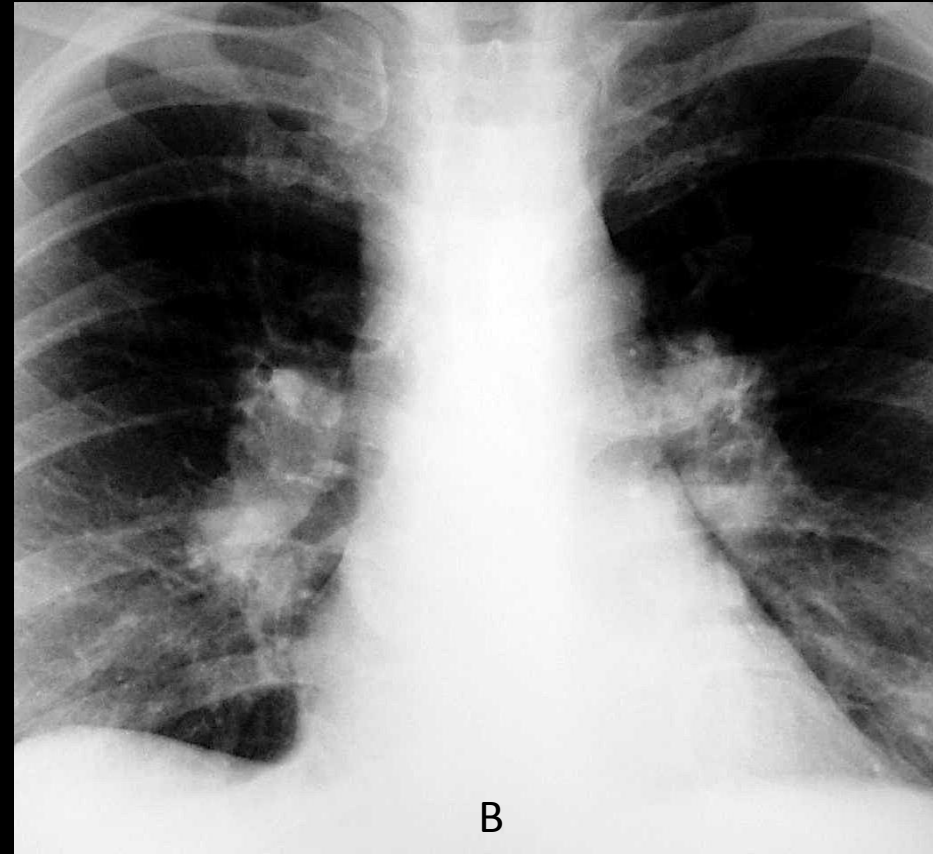
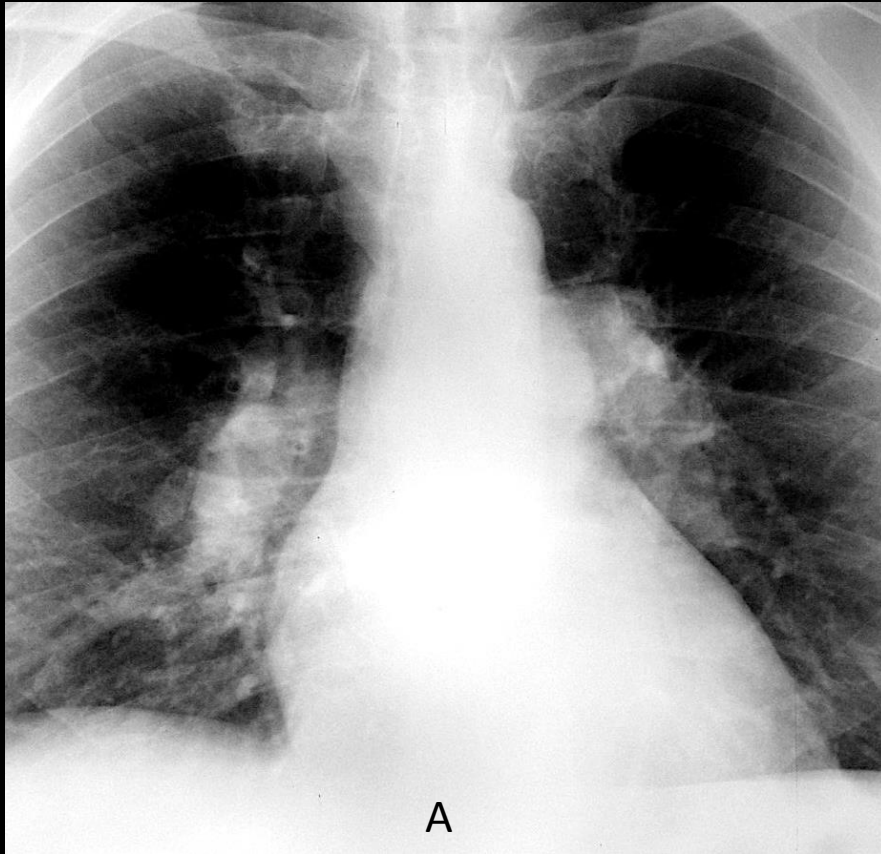
56 y.o. with persistent fever after cardiac surgery





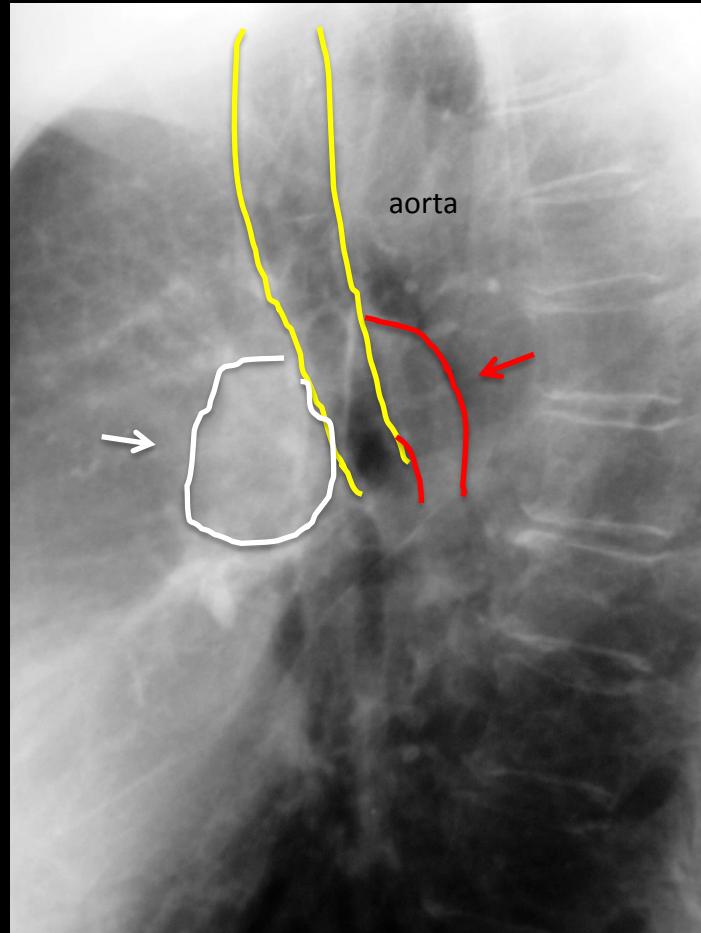
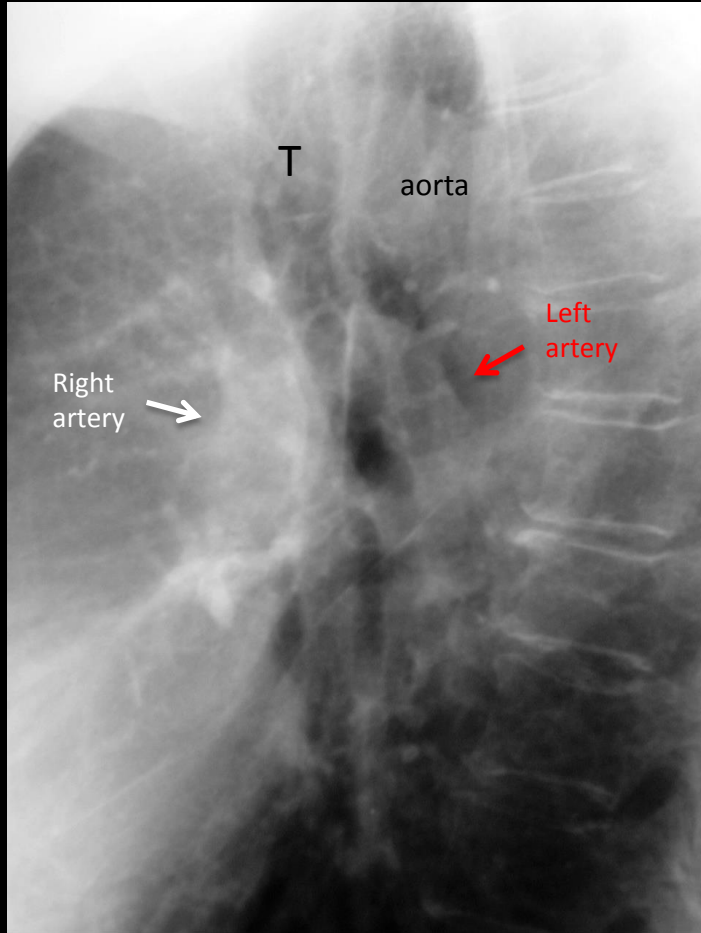
Surgical gauze in pericardium

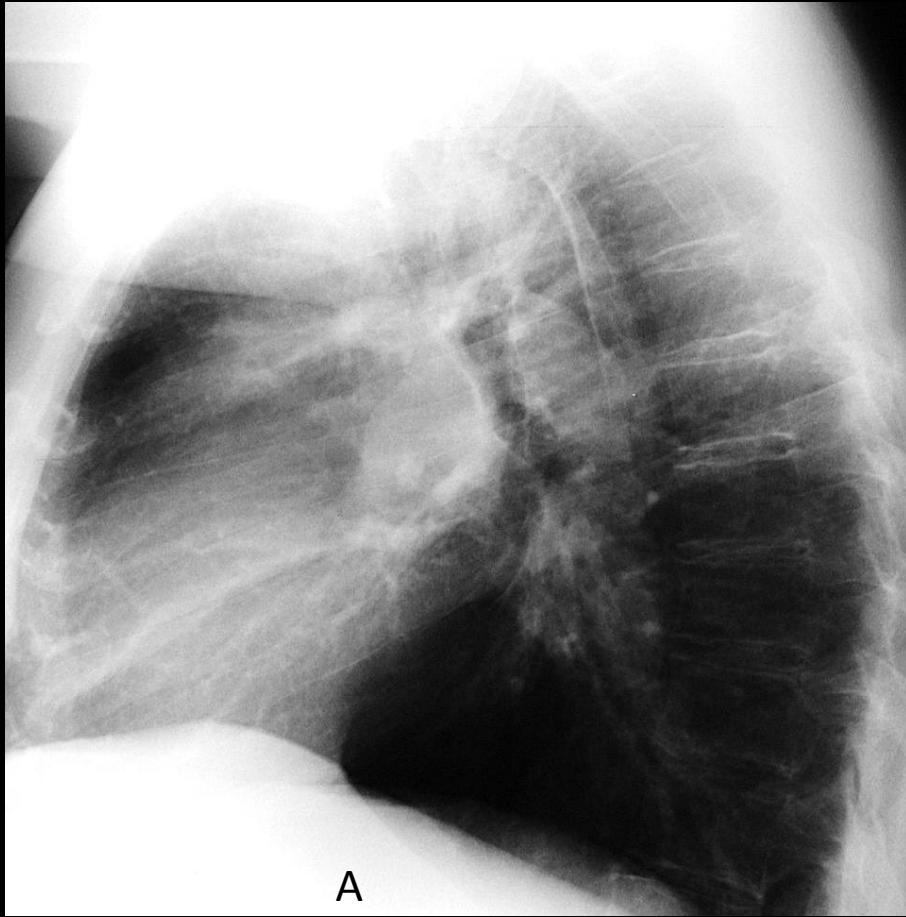
Two different patients with prominent hilar shadows in the PA view



Diagnosis:

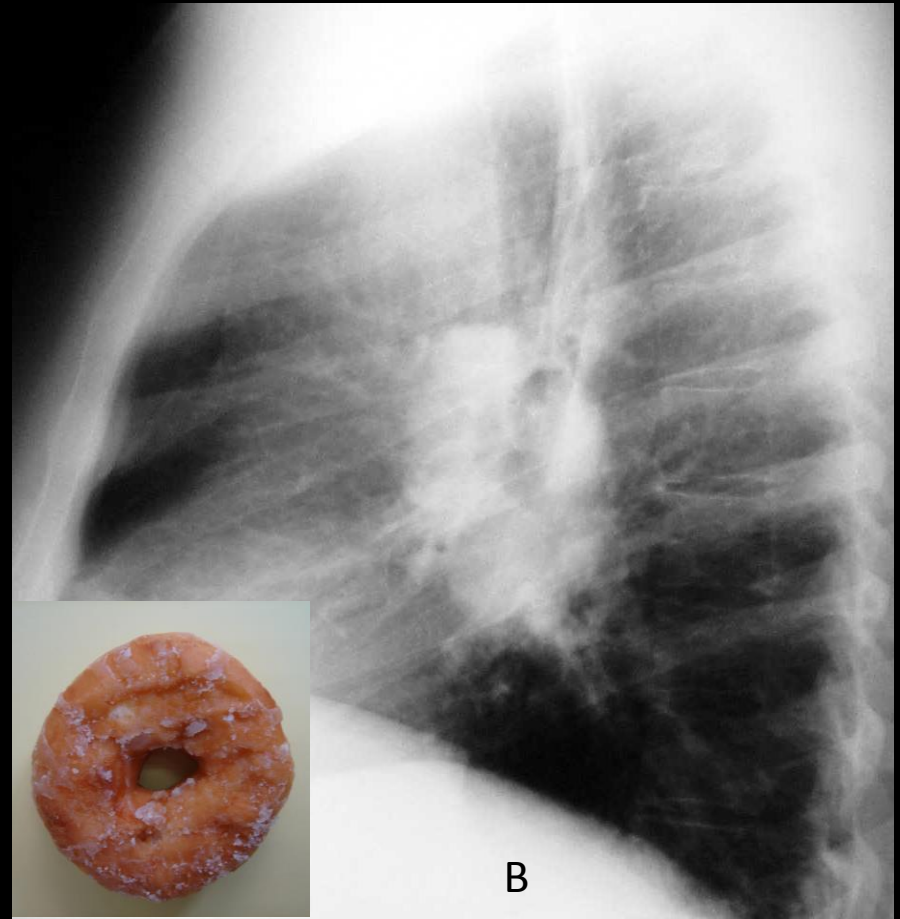
1. A has enlarged arteries and B enlarged nodes
2. A has enlarged nodes and B enlarged arteries
3. Both have enlarged arteries
4. Both have enlarged nodes





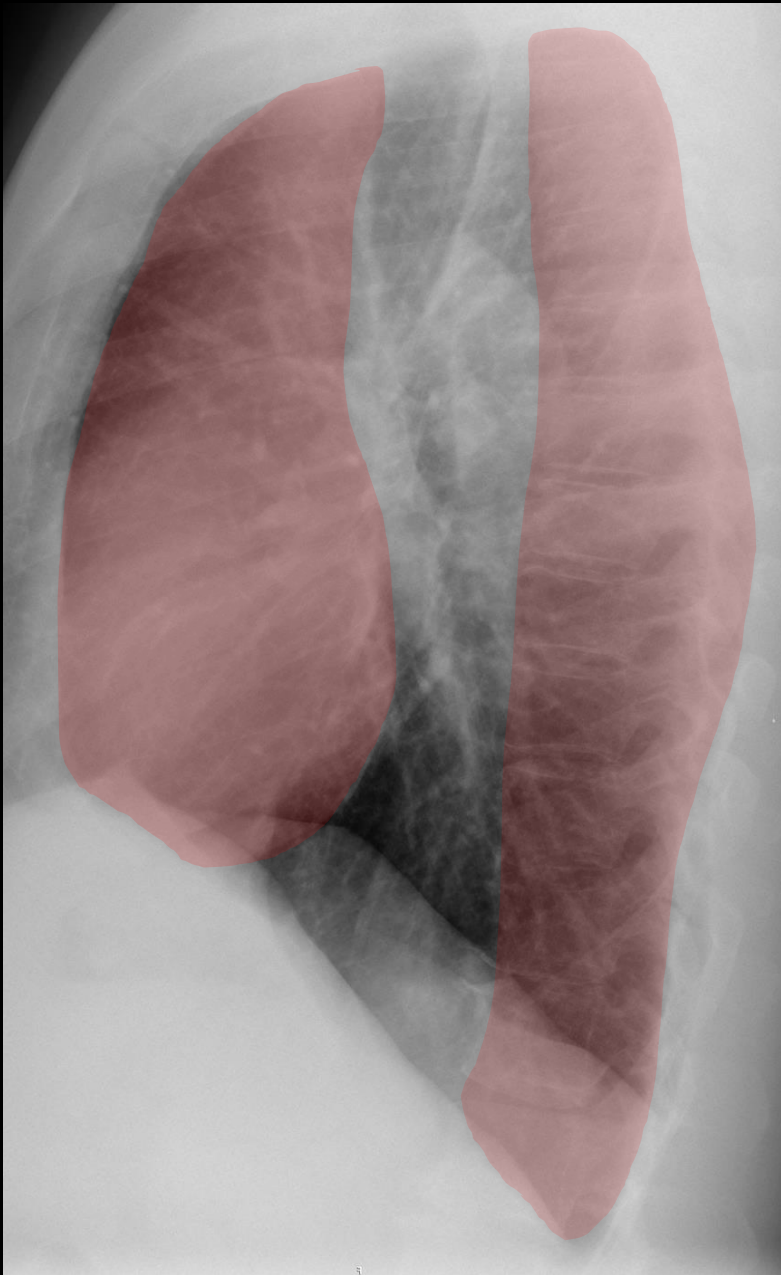
A

Pulmonary arterial hypertension



B

Lymphoma



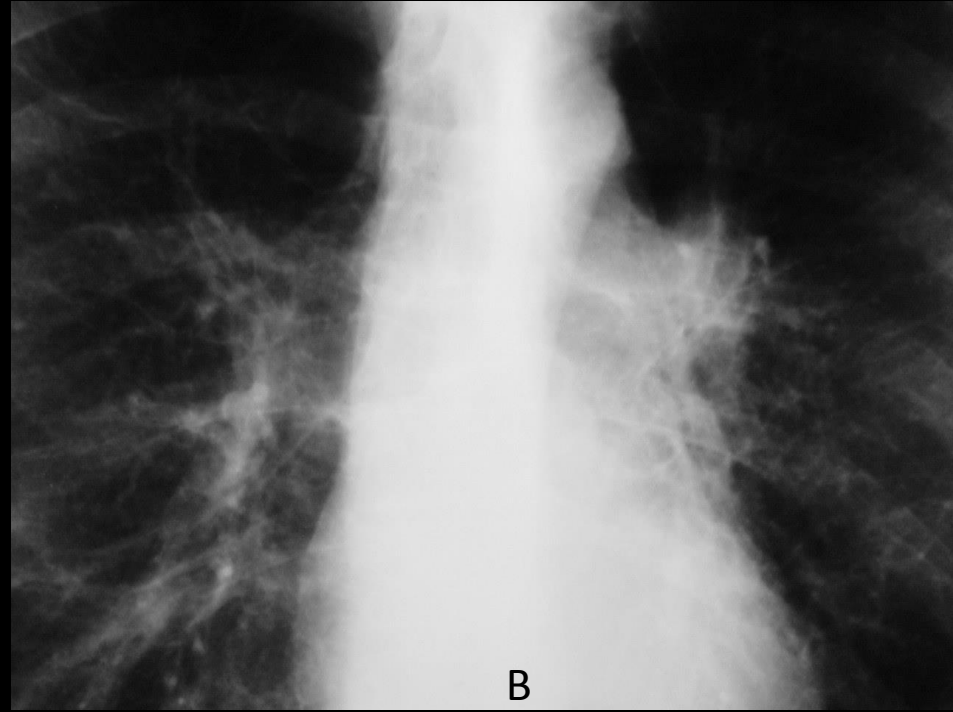
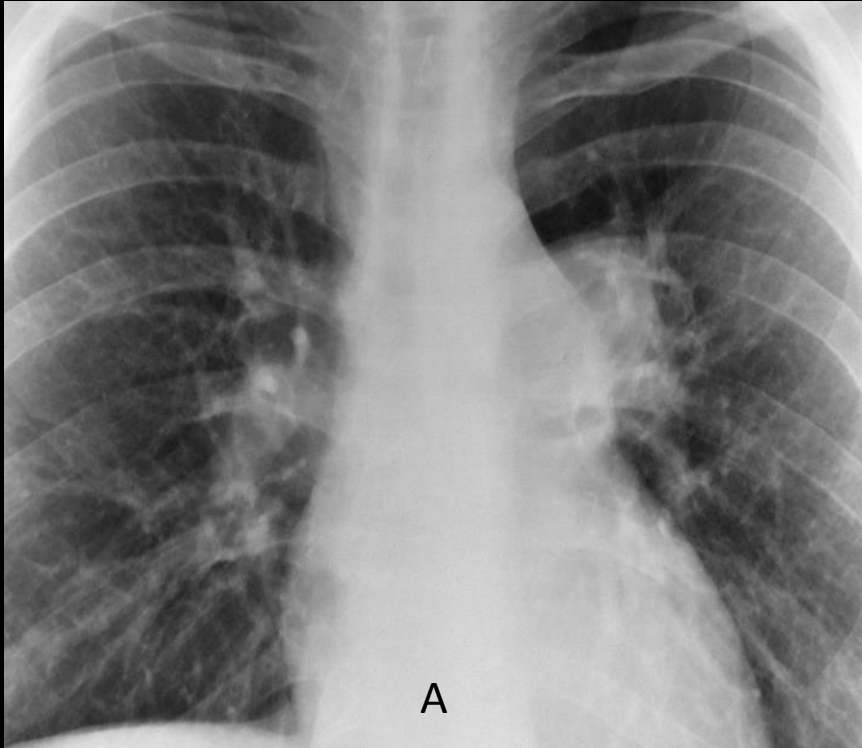
MIDDLE AREA BASIC CHECKLIST:

Hila – arterial size, donut sign

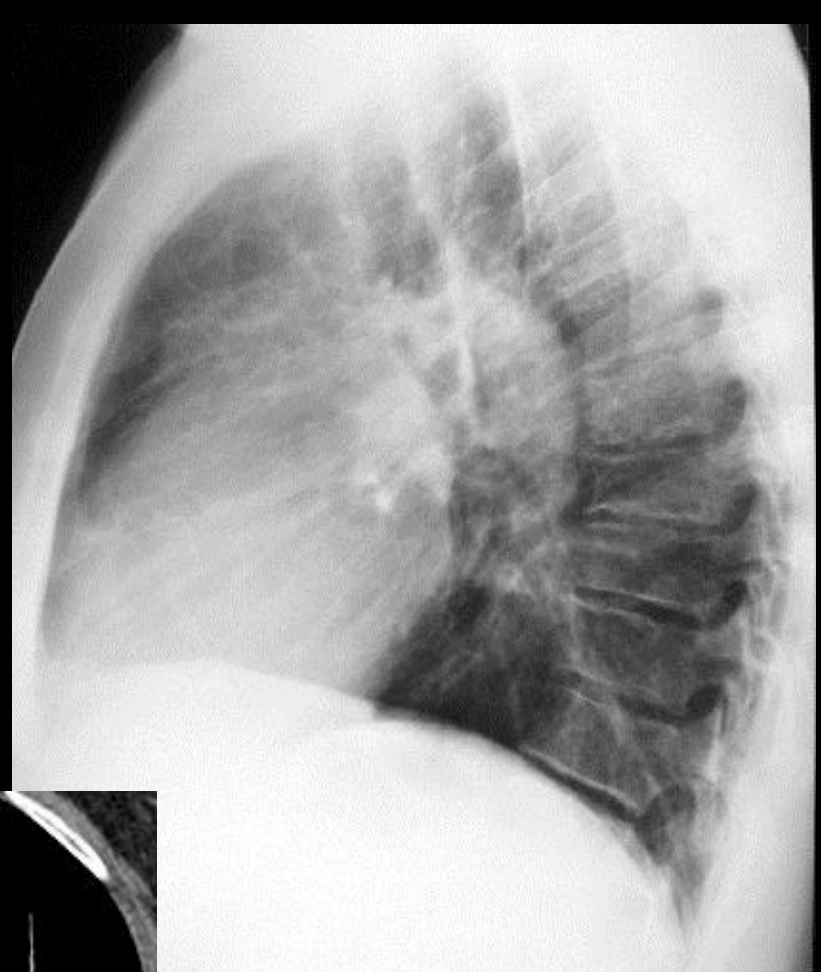
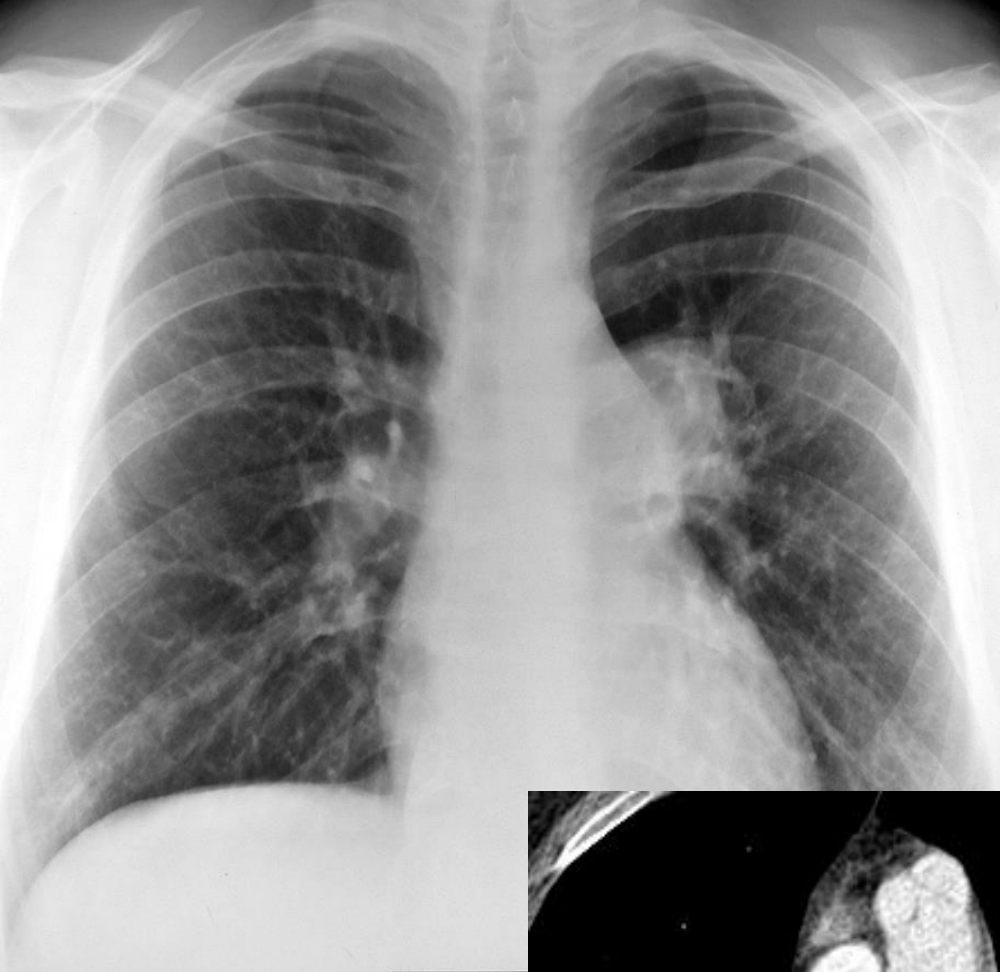
Trachea - Caliber changes, displacement

Raider triangle– Opacification

Retrocardiac space - Opacifications



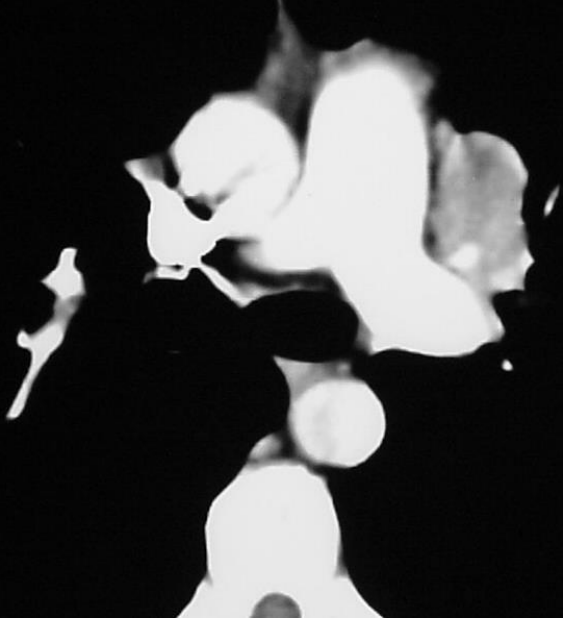
Two different patients with dense left hilum



Idiopathic dilatation of
left pulmonary artery

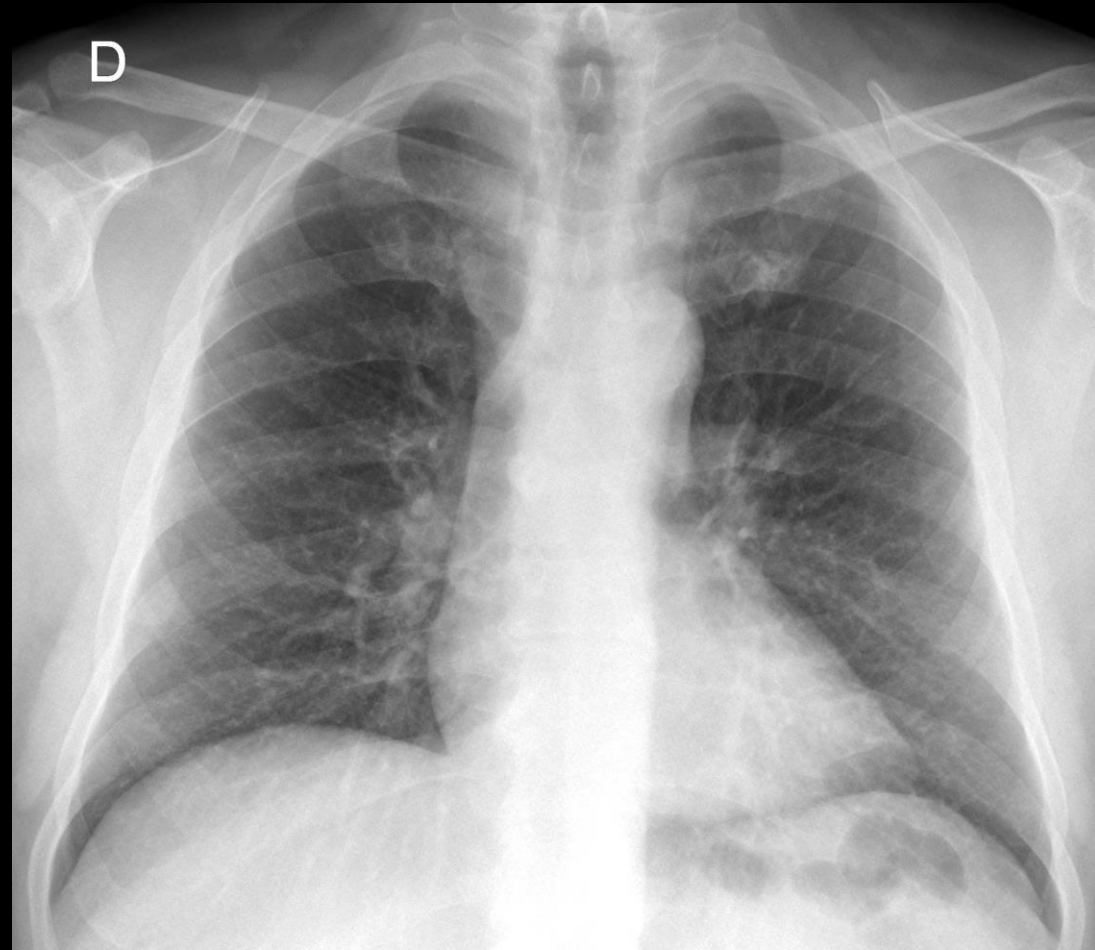


Lung carcinoma



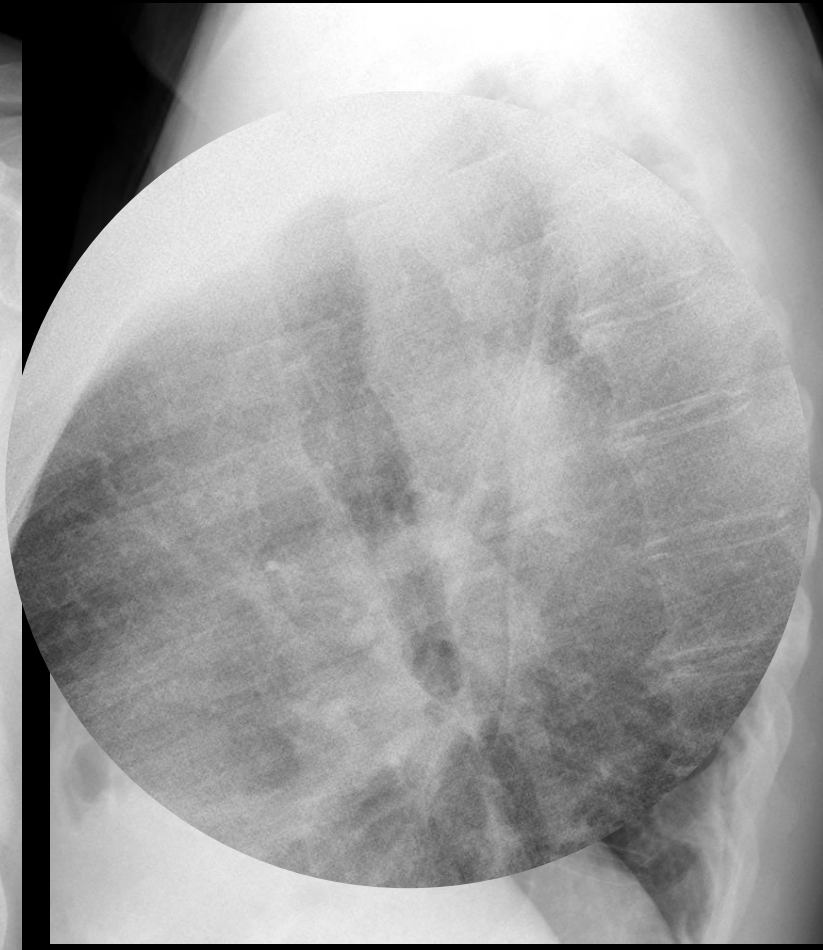
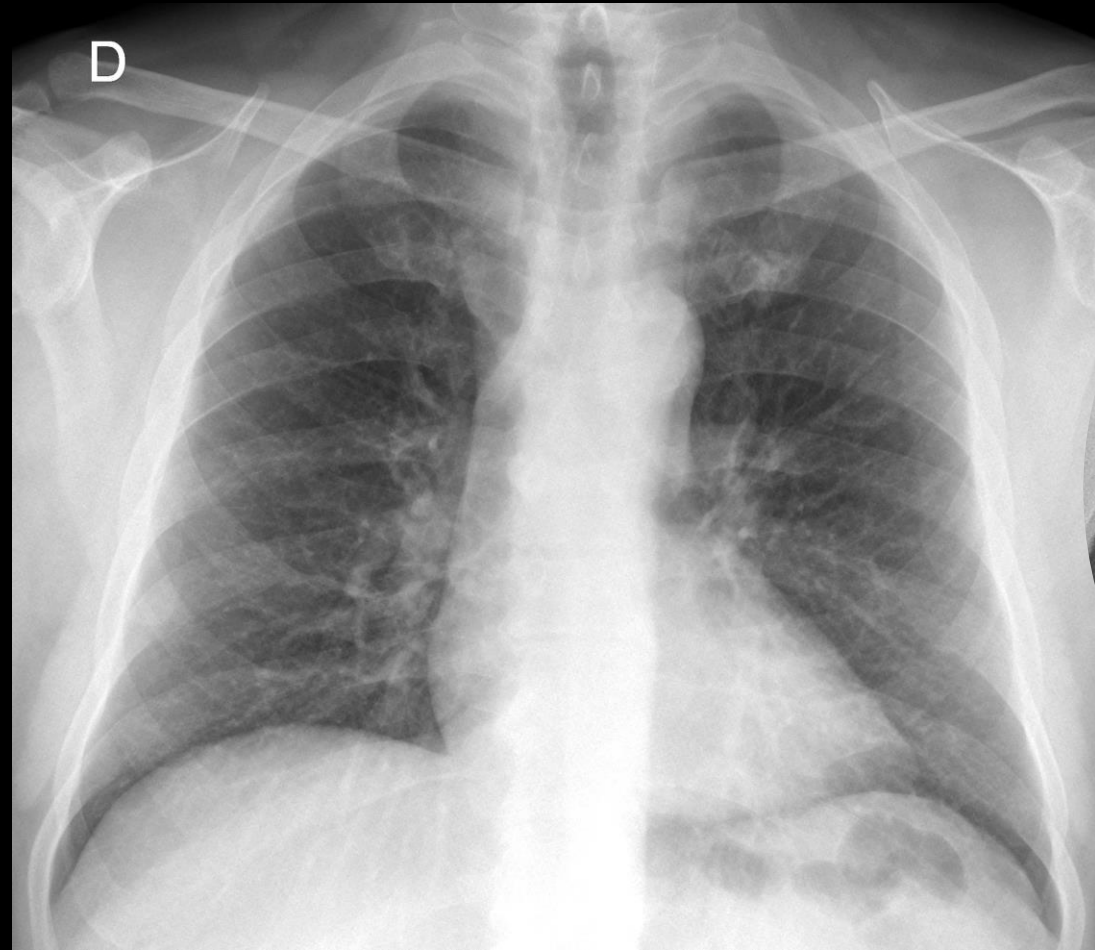
49 y.o. man with weight loss and dysphagia

D



49 y.o. man with weight loss and dysphagia

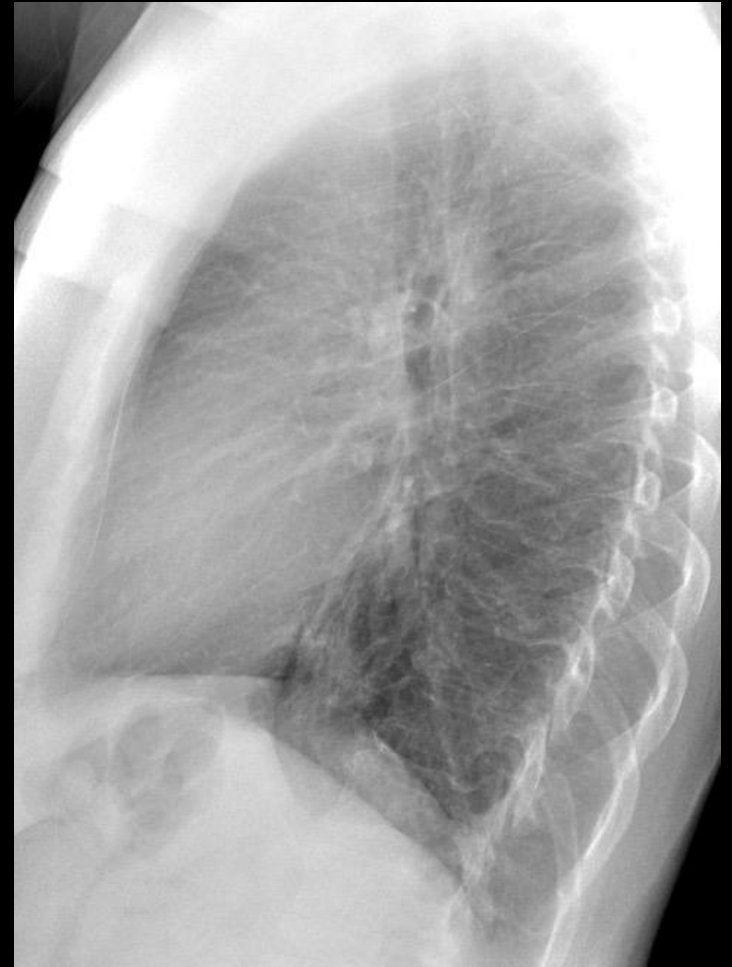
D



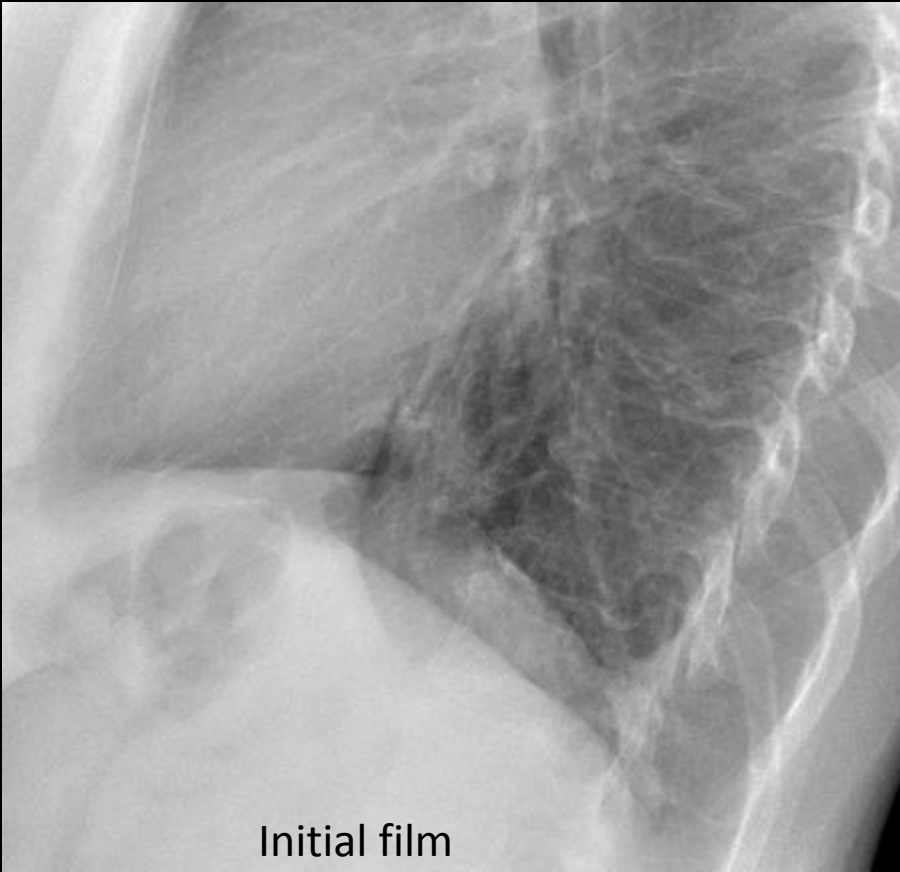


Carcinoma of esophagus

32 y.o. woman with fever and cough

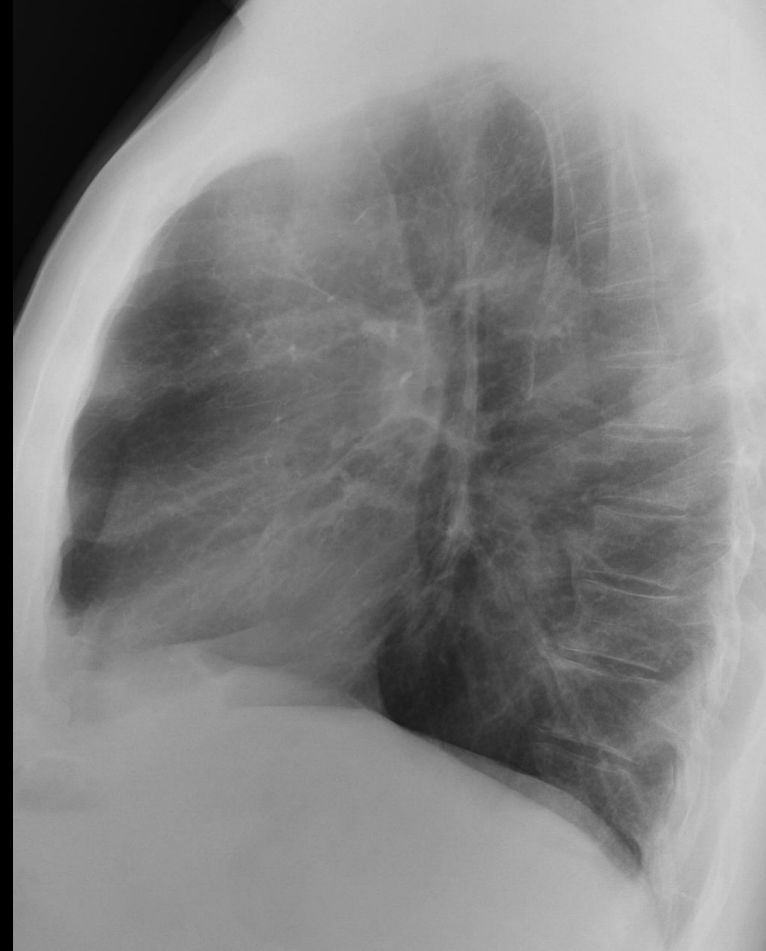
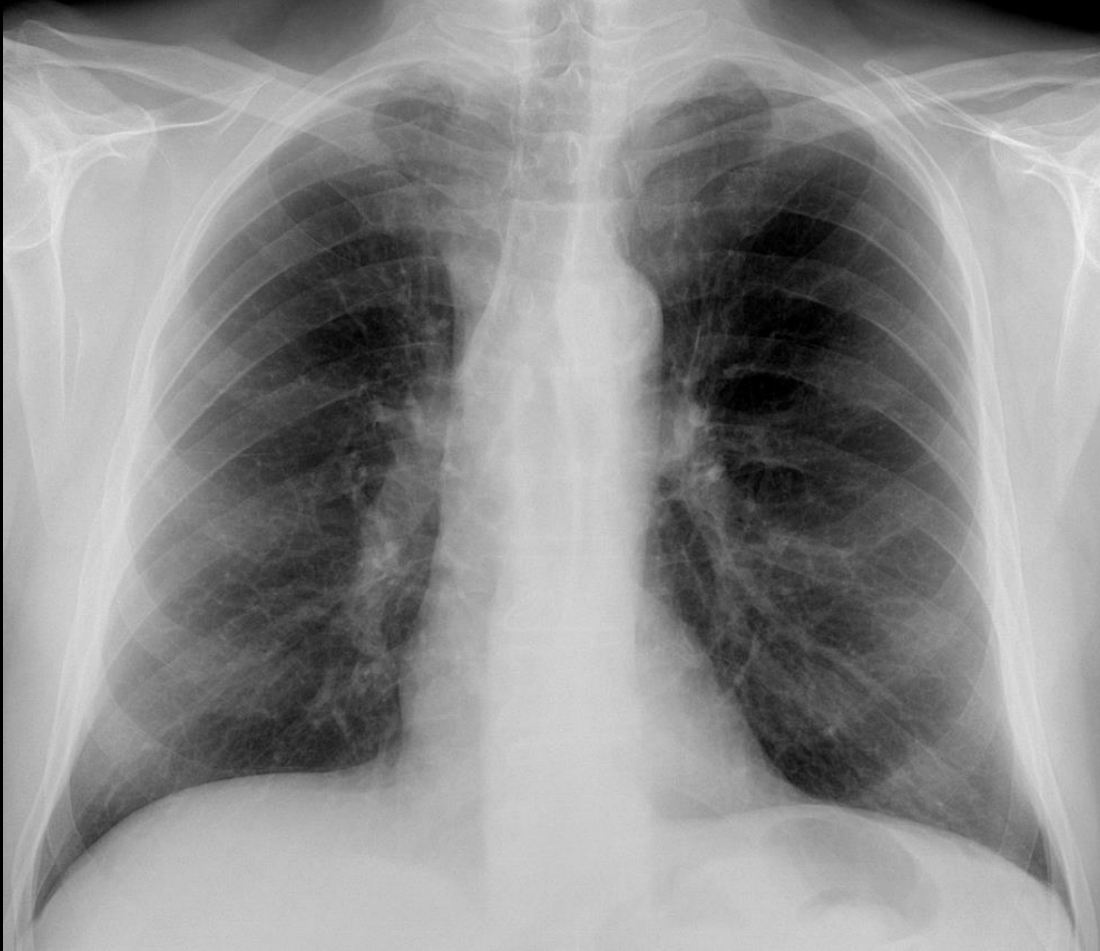


Do you see the pneumonia?



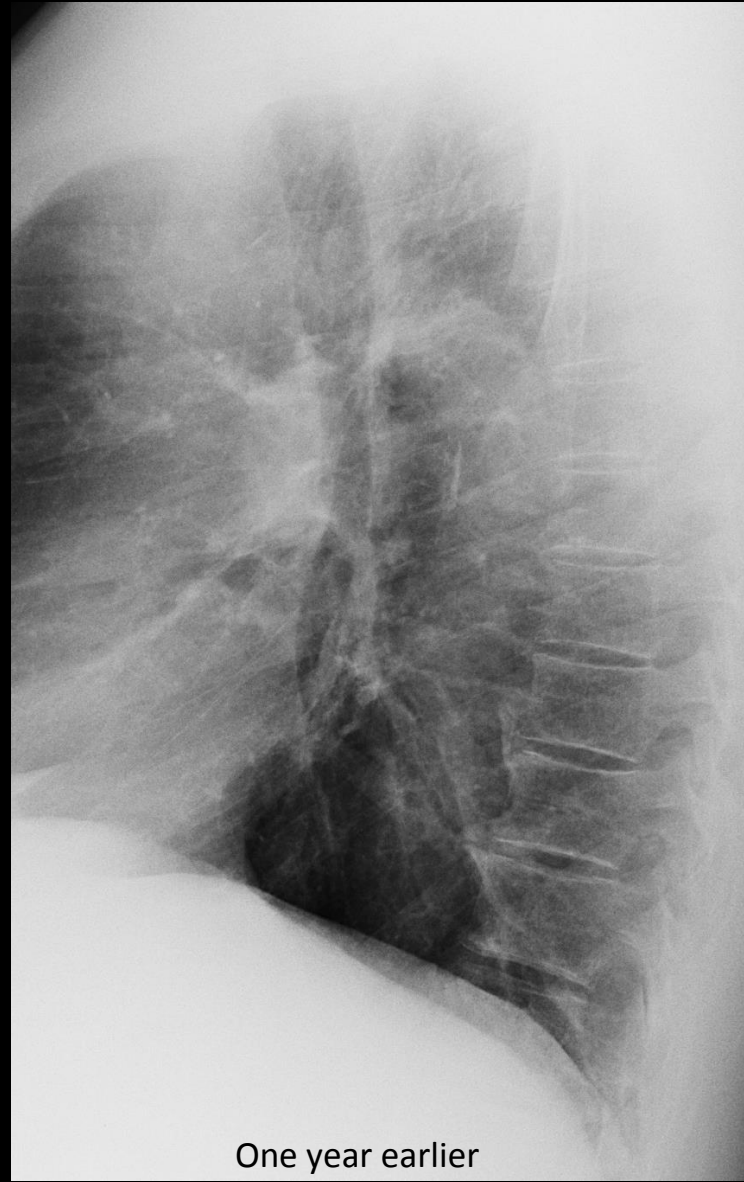
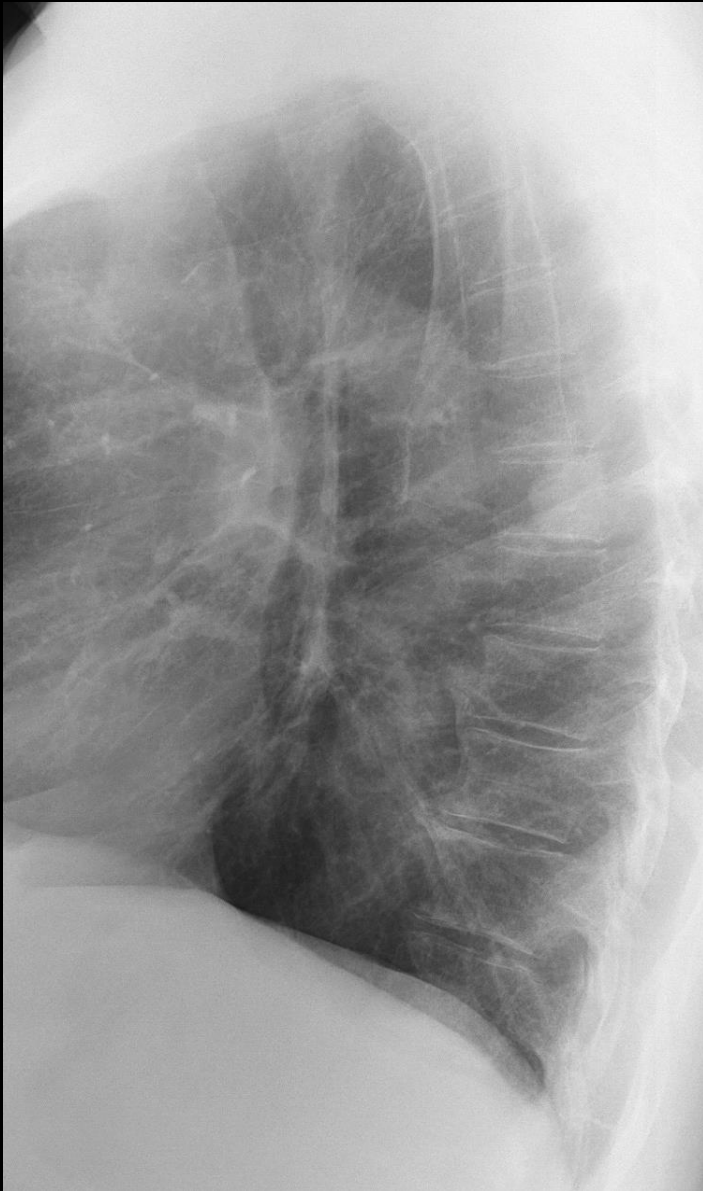
Retrocardiac pneumonia, visible in the lateral view

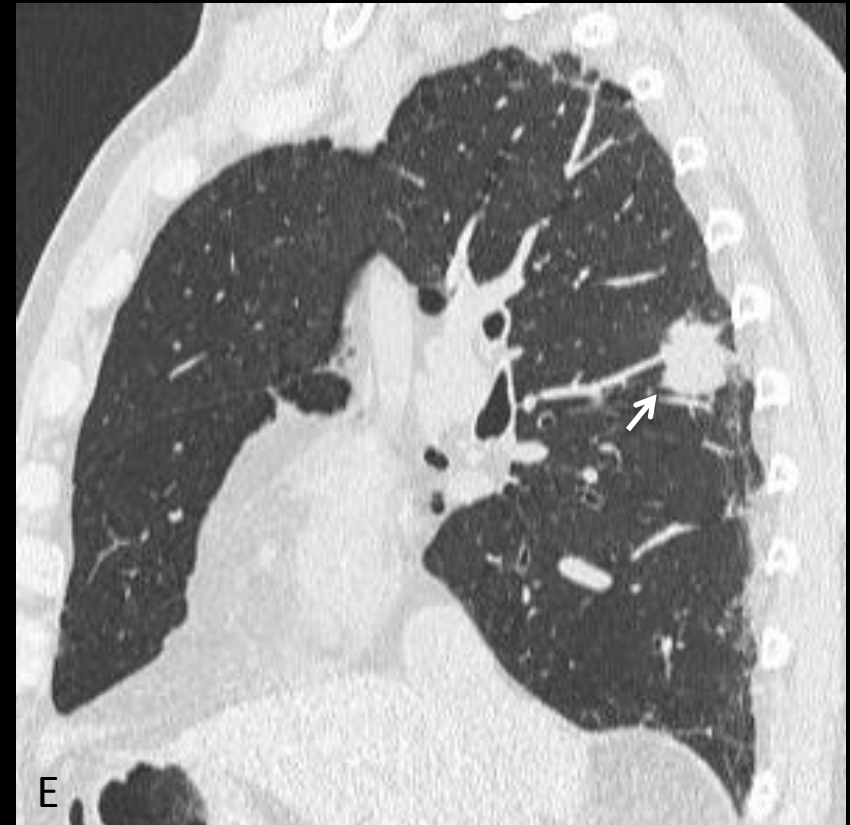
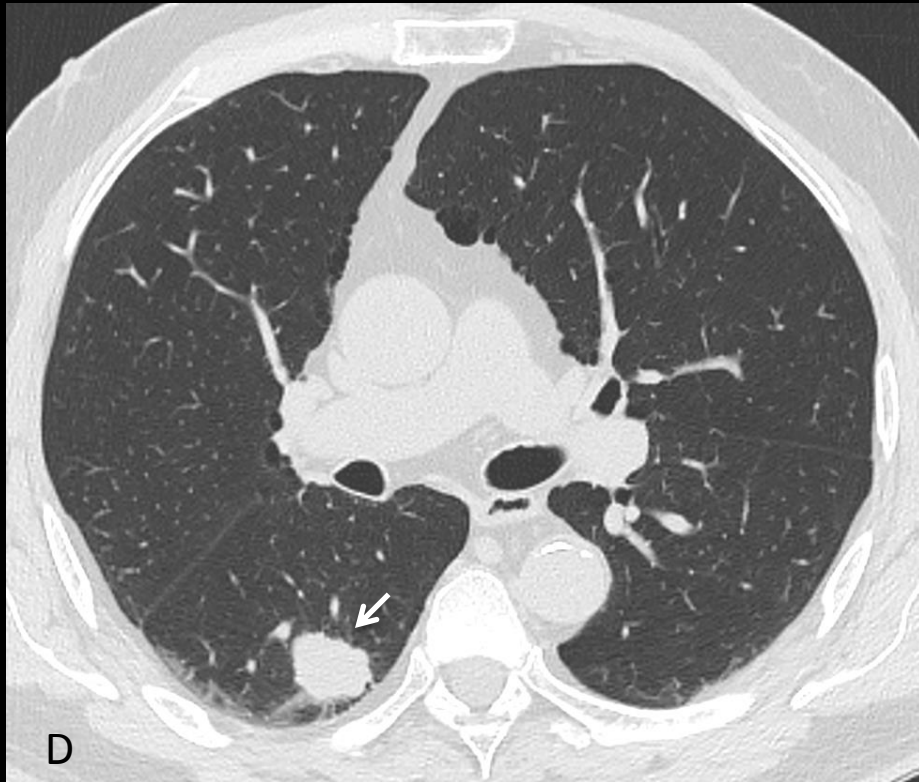
Routine check-up in a 65 y.o. male



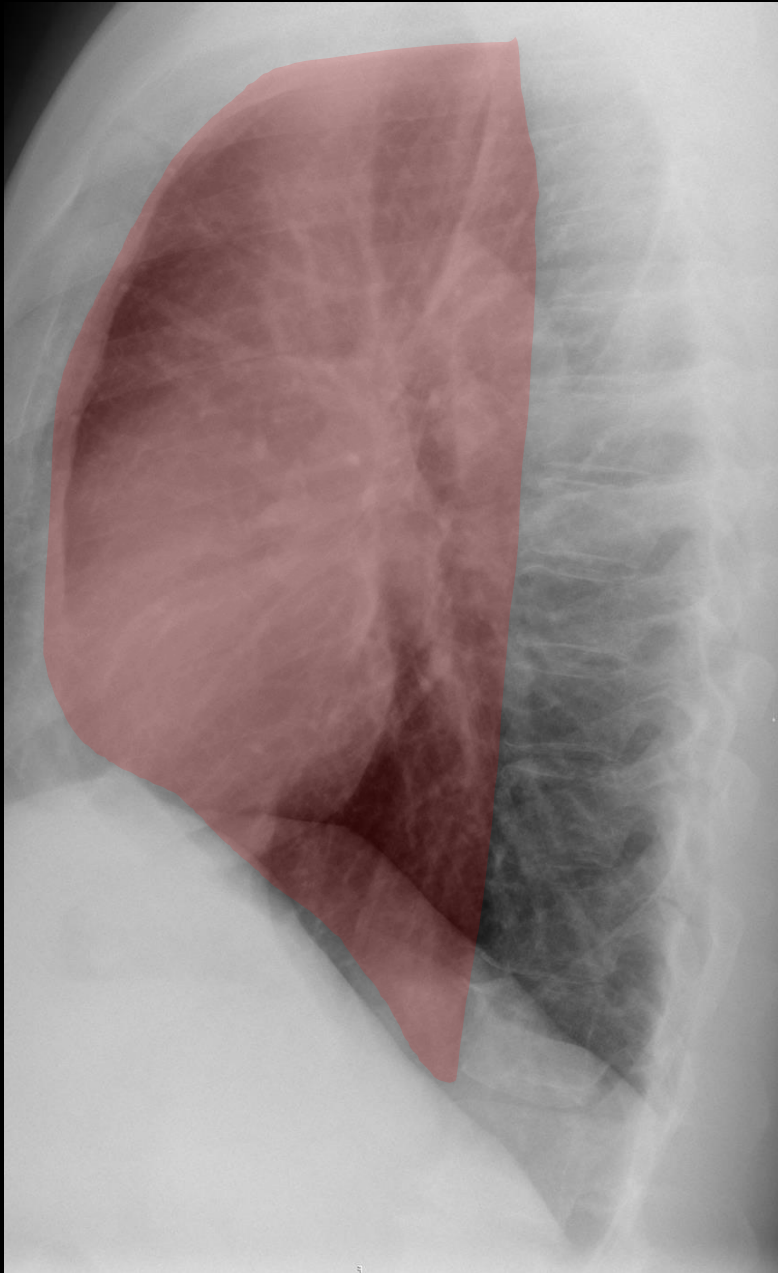
Do you see any abnormality?

1. Yes
2. No
3. Want a CT





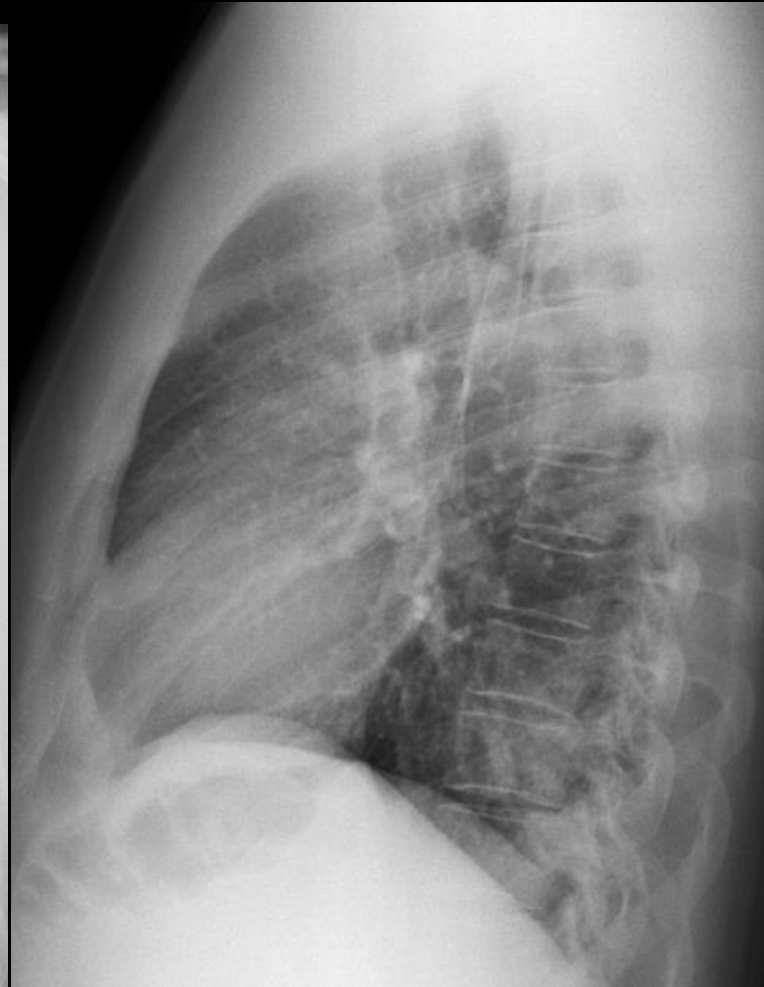
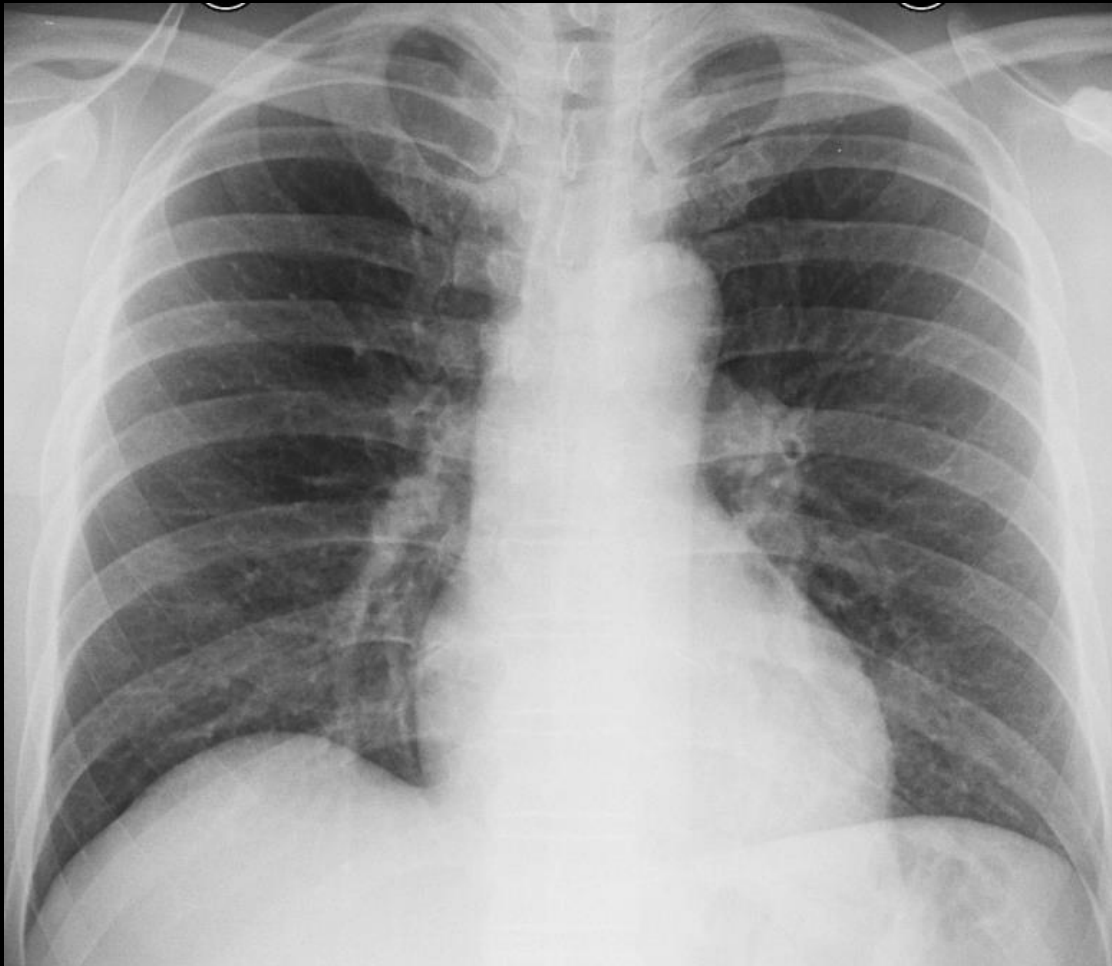
Final diagnosis: lung carcinoma, hidden by the right hilum in the PA view.



POSTERIOR AREA BASIC CHECKLIST:

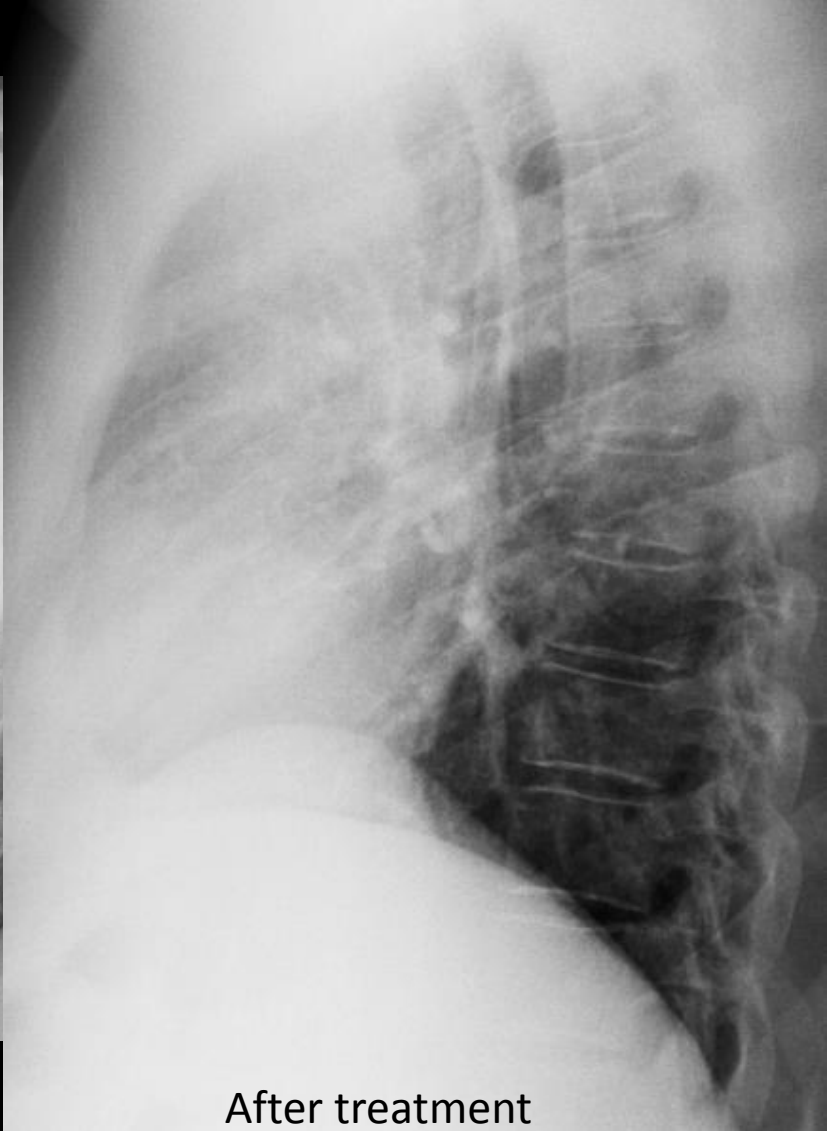
Thoracic spine - Vertebral and disk lesions, superimposed lesions

Posterior clear space - Opacifications

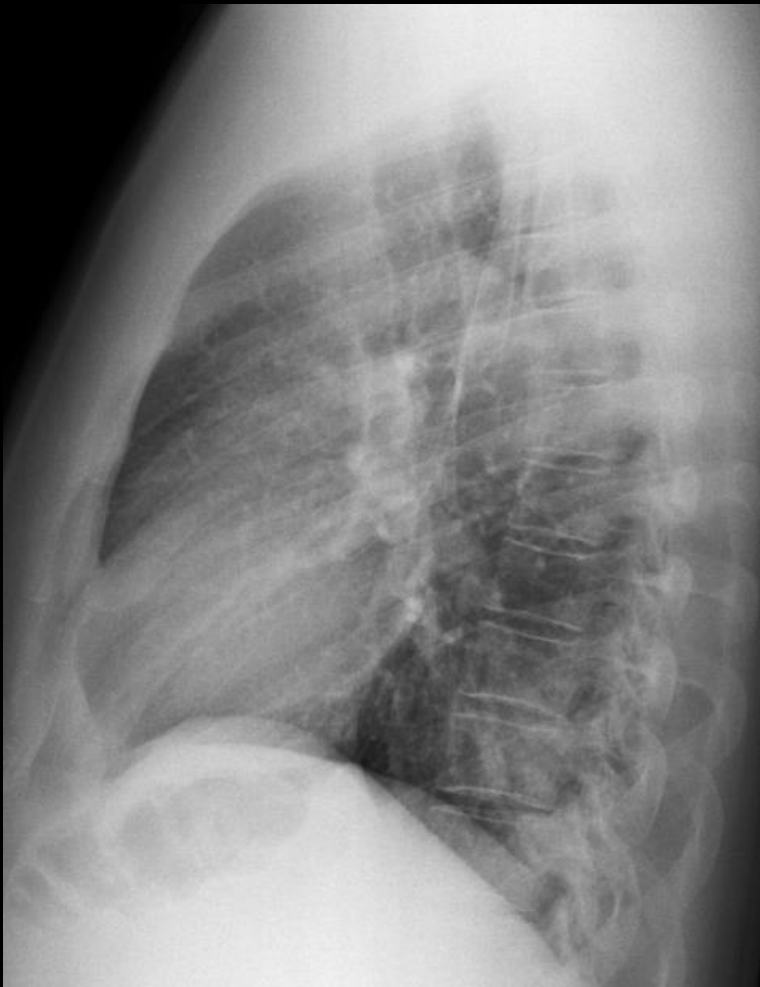


40 y.o. man with cough and fever

Where is the pneumonia?

A frontal chest X-ray showing the lungs and ribcage. There is a prominent area of consolidation in the lower right lung field, which is the area of concern for pneumonia. The rest of the lung fields appear relatively clear.

After treatment

A frontal chest X-ray showing the lungs and ribcage. There is a prominent area of consolidation in the lower right lung field, which is the area of concern for pneumonia. The rest of the lung fields appear relatively clear.

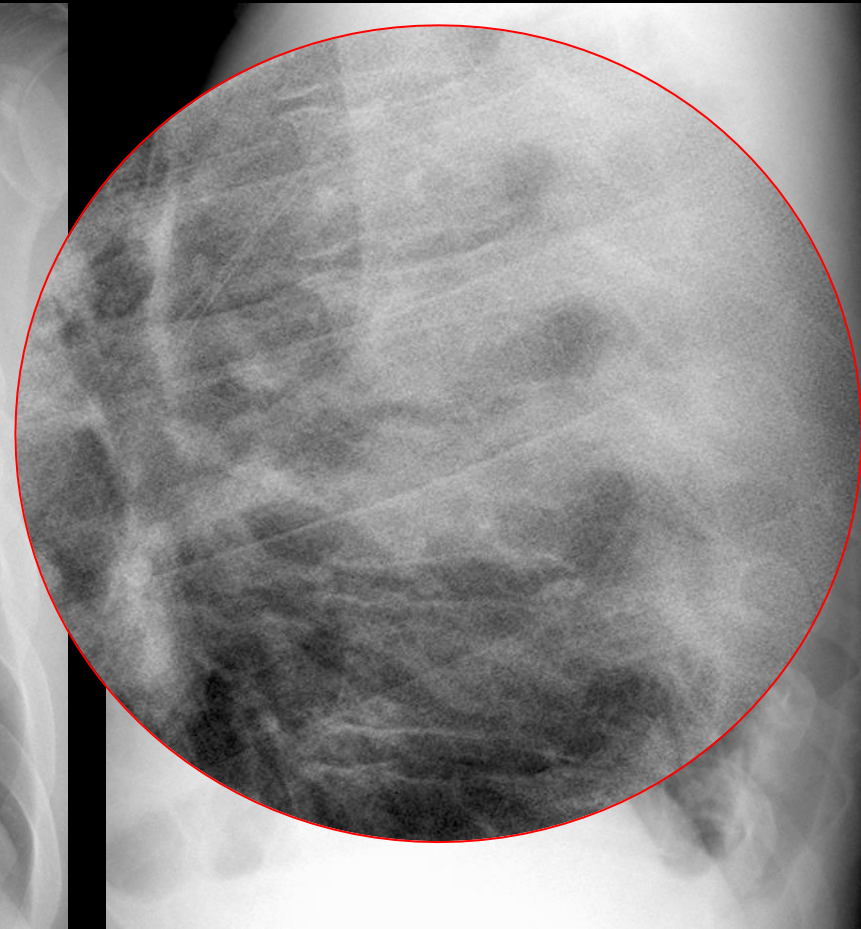
40 y.o. man with cough and fever

Where is the pneumonia?

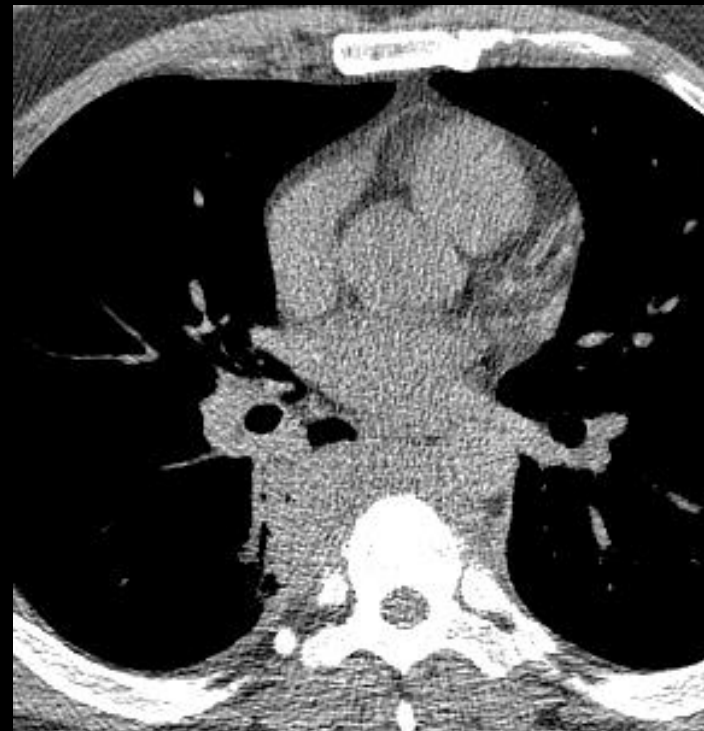
52 y.o man with chest pain and fever



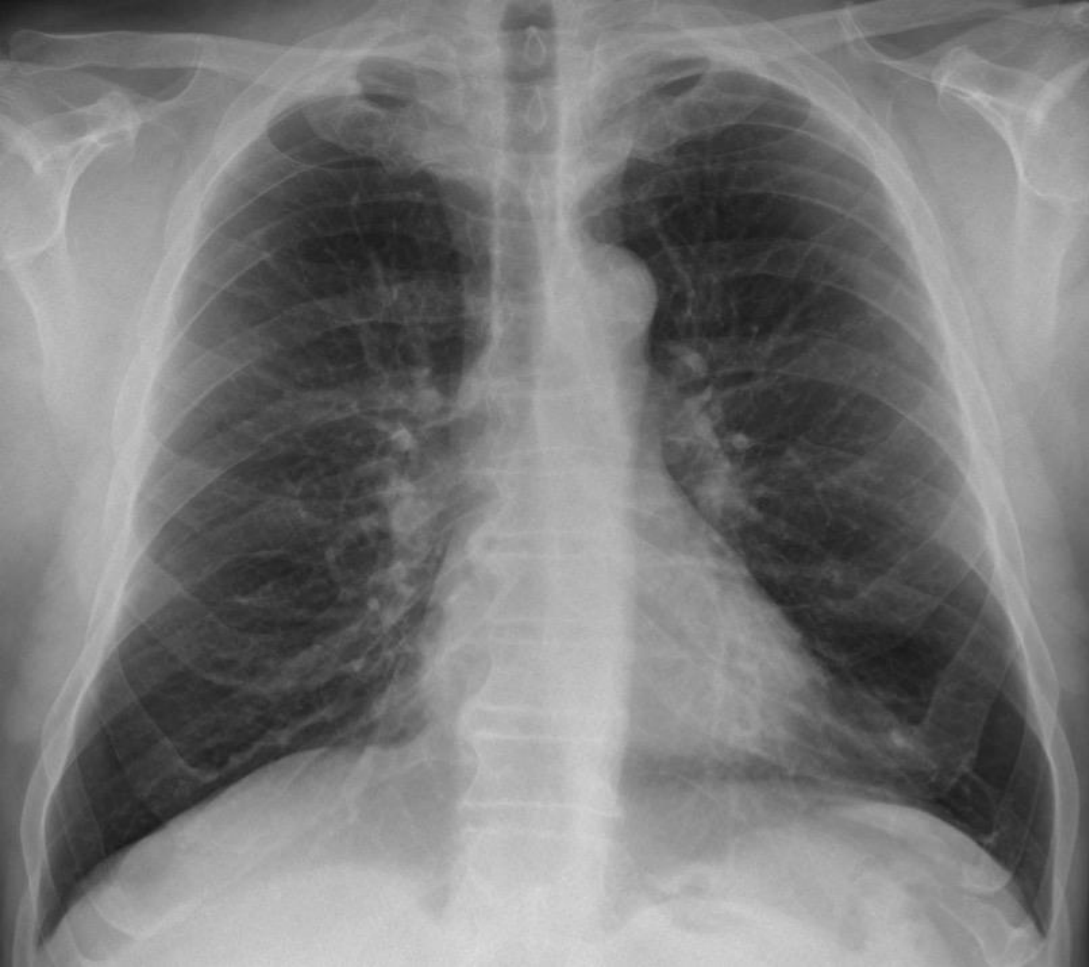
52 y.o man with chest pain and fever



Infectious spondylitis



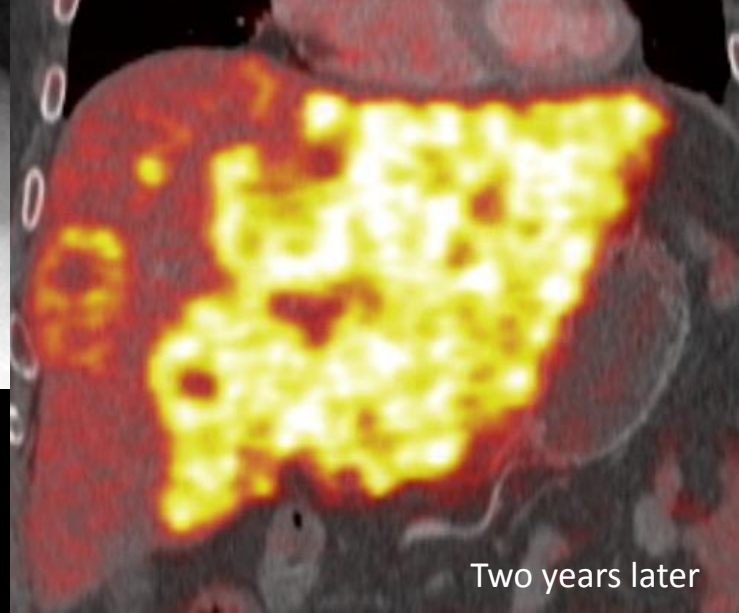
53 y.o. man with vague chest complaints





One year later







Follow Dr. Pepe's advice:

1. About 25% of the lung is hidden in the PA view
2. Areas to examine in the lateral view:
 - Anterior clear space
 - Posterior clear space
 - Middle zone
 - Thoracic spine