solitary pulmonary nodule

- A solitary pulmonary nodule (SPN) is defined as a single, discrete pulmonary opacity that is surrounded by **normal** lung tissue and is not associated with adenopathy, atelectasis or pleural effusion.
- Radiographically, a nodule is defined as a lesion smaller than 3 cm.
- Anything larger than 3 cm is termed a mass.

دردو حالت نیاز به بررسی از نظر بدخیمی نیست:

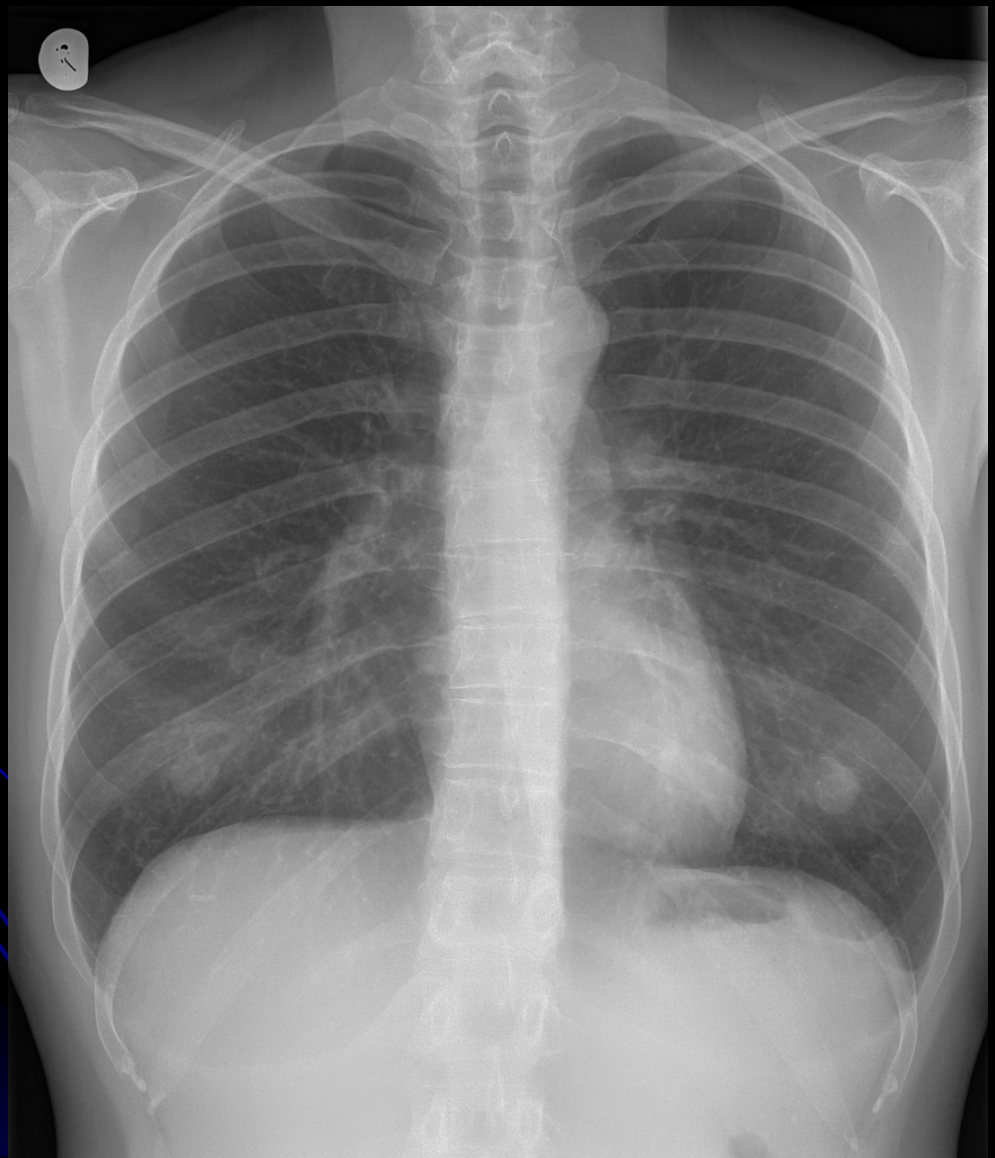
A benign pattern of calcification or

Stability of nodule size for over 2 years for solid pulmonary nodules.

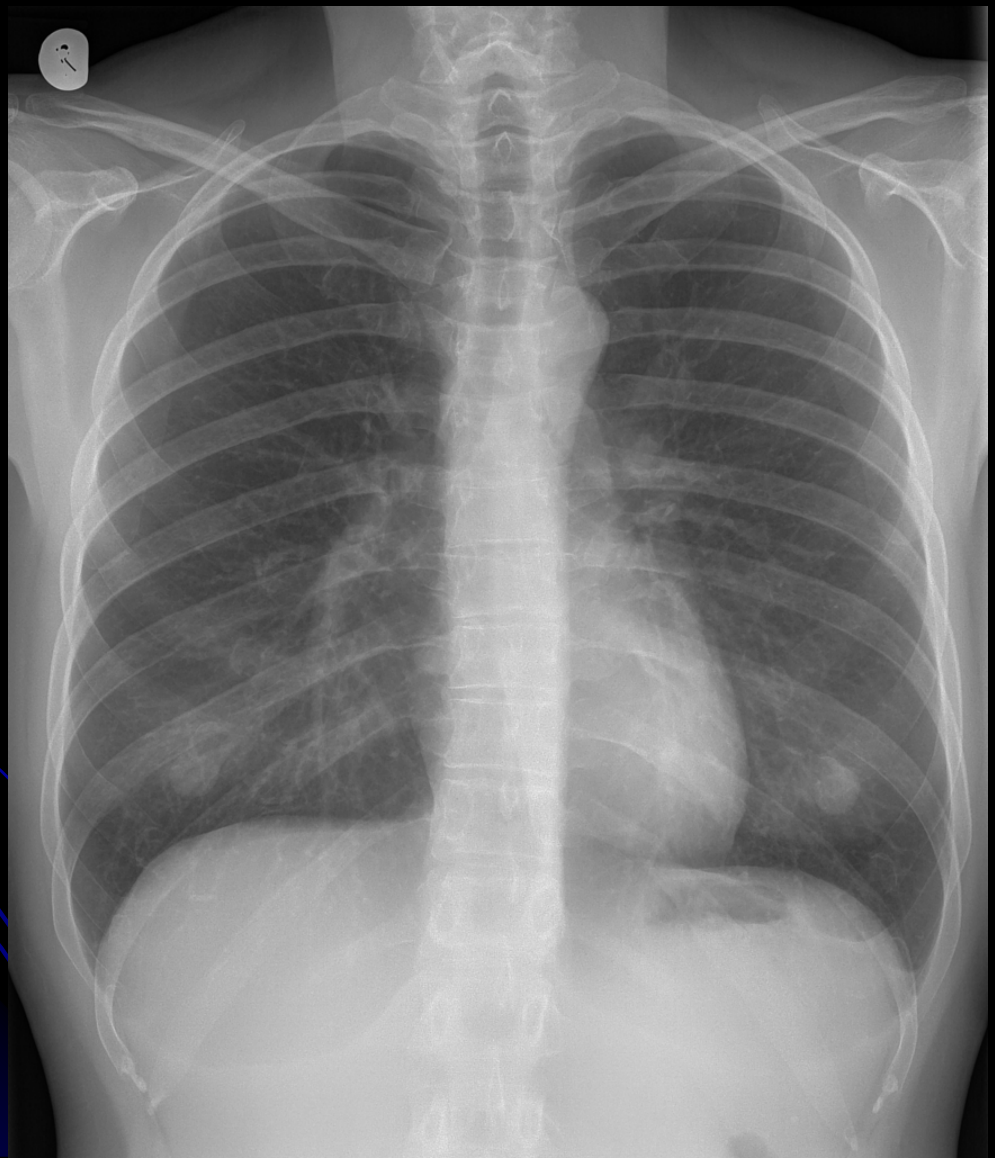
- Other nodule features such as:
- **shape**
- **edge characteristics**
- **Cavitation**
- and **location** have not yet been found to be accurate clues for distinguishing benign from malignant nodules.

Table 1 Differential diagnosis of solitary pulmonary nodule

Malignant neoplasms	Bronchogenic carcinoma
	Carcinoid tumor
	Pulmonary lymphoma
	Pulmonary sarcoma
	Solitary metastases
Benign neoplasms	Hamartoma
	Adenoma
	Lipoma
Infectious inflammatory	Granuloma (tuberculous/fungal)
	Nocardia infection
	Round pneumonia
	Abscess
Non infectious inflammatory	Rheumatoid arthritis
	Wegener's granulomatosis
	Sarcoidosis
Vascular	Arteriovenous malformation
	Infarction
	Hematoma
Congenital	Bronchial atresia
Miscelaneous	External object
	Pseudotumor
	Pleural thickening



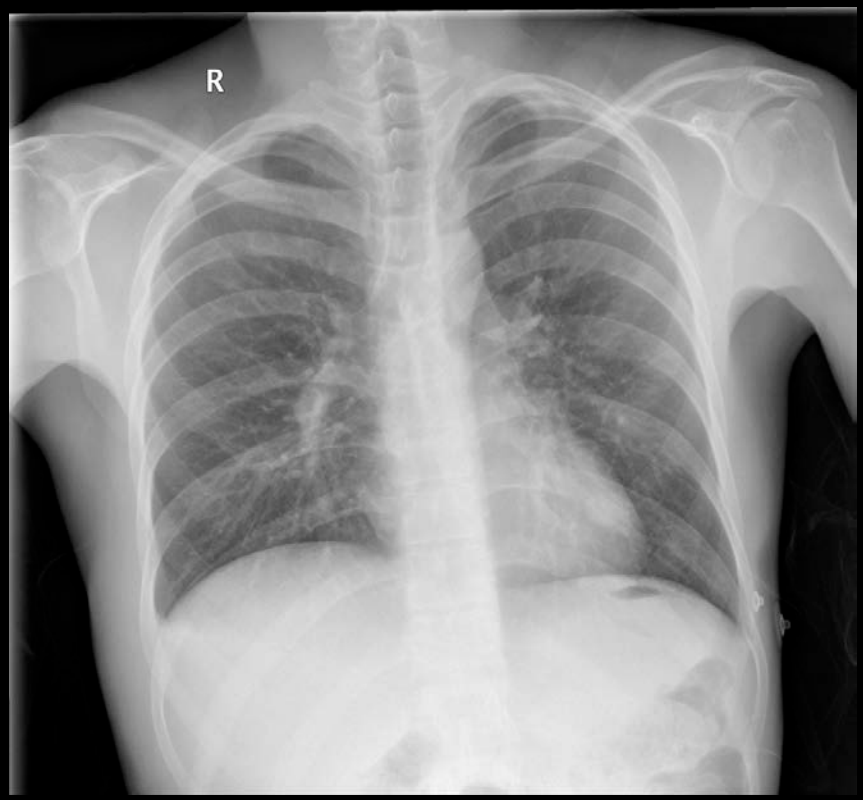
Nipple shadow



- Nipple shadows are apparent on ~**7.5%** (range 3.5-11%) of frontal chest x-rays .
- bilateral and symmetric
- "fuzzy" margins or radiolucent "halo"
- sharp lateral border and poorly defined medial border (may be present only on PA projections.

Melanoma metastasis

- Male 24 years
- Septic sceen
- 2 cm left lower lobe nodule, projecting over the cardiac silhouette on the frontal view.

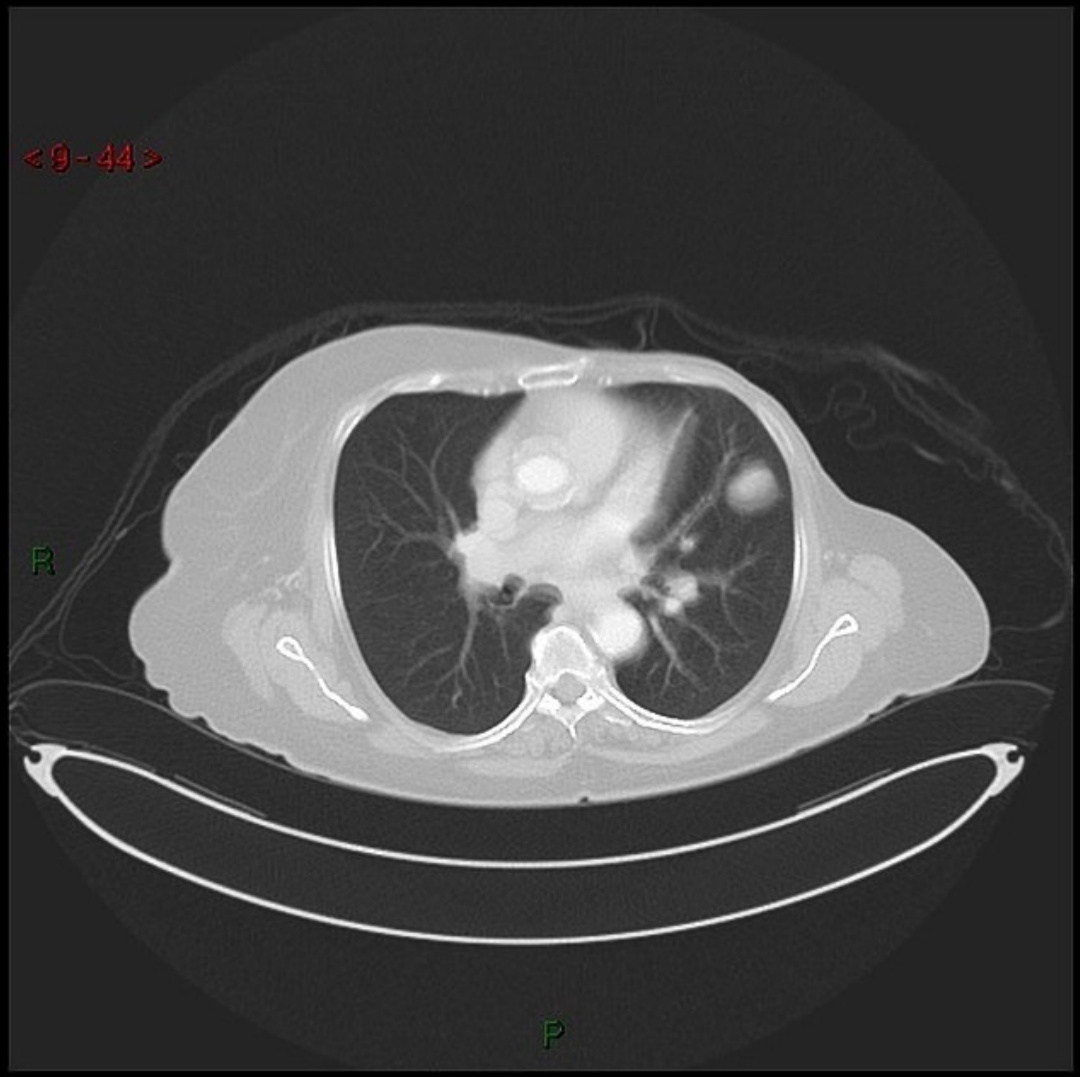


AGE: 75 years

GENDER: Female

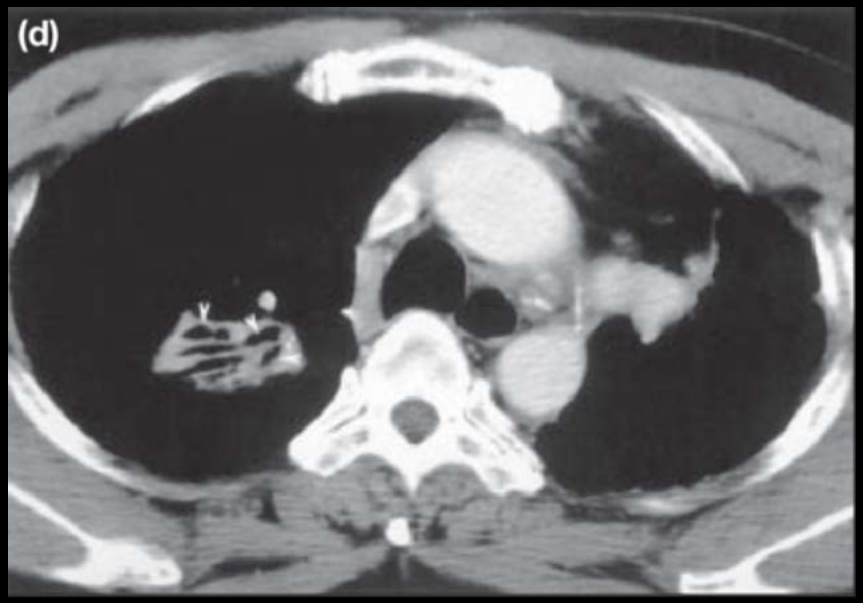
Known left breast cancer (2014) post-surgery and chemoradiotherapy. Follow-up PET-CT showed a hypermetabolic left lung nodule.

Evidence of left mastectomy and left axillary clearance with no suspicious lesions seen in the operative bed.
New well-defined pulmonary nodule in the lingula measuring 3.0 x 2.0 cm, pulmonary metastasis versus primary lung cancer; for further evaluation.

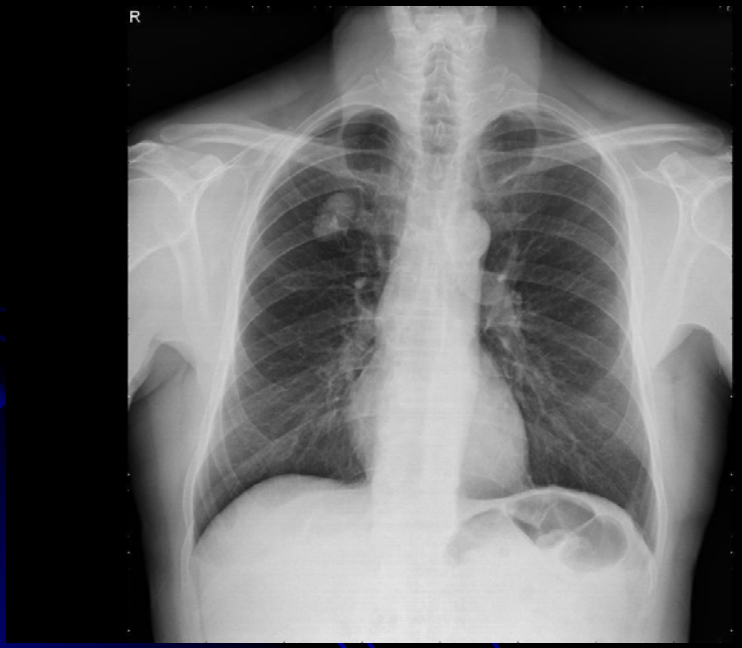


- Fig C 7-16 Non-small cell cancer. (A) Lobulated and speculated nodule in the right lower lobe. (B) In another patient, there is eccentric cavitation within a speculated upper lobe nodule.[22]

- (d) a solitary pulmonary nodule with air bronchograms (arrowheads) confirmed to be bronchioloalveolar cell carcinoma in the right upper lobe on contrast-enhanced computed tomogram



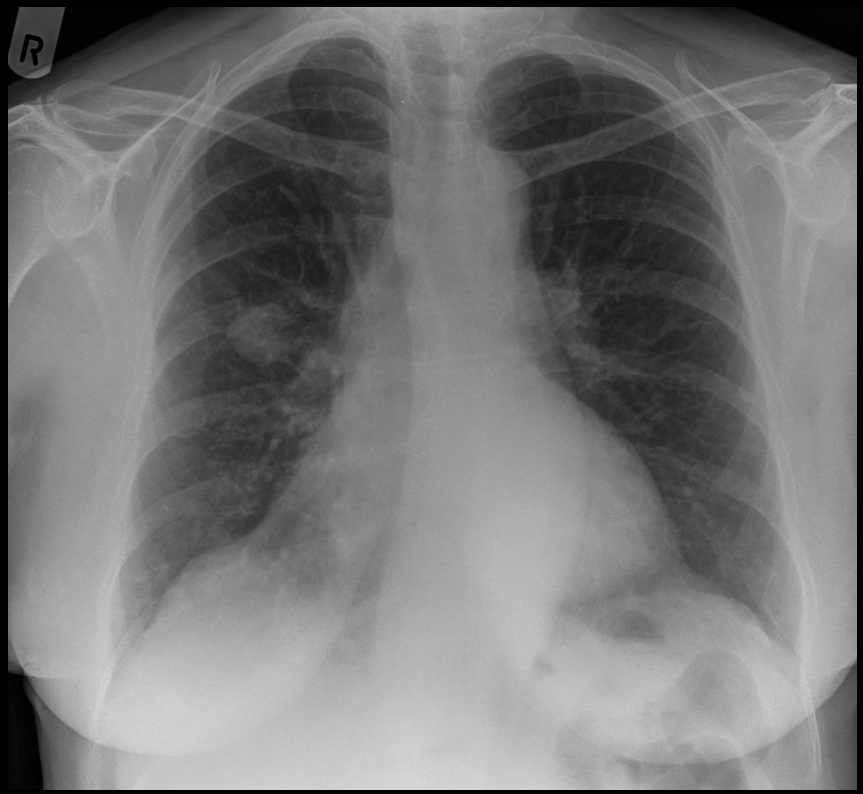
AGE: 75
GENDER: Male
pulmonary hamartoma



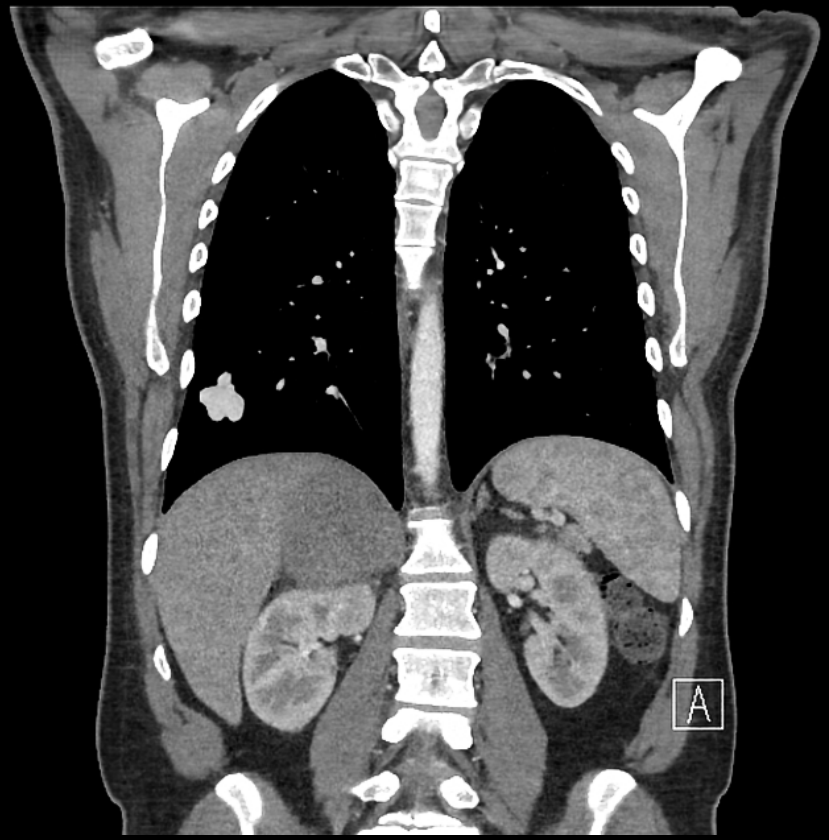
- It is one of the commonest benign tumors of the lung and accounts for approximately 8% of all lung neoplasms and 6% of solitary pulmonary nodules.

Coin lesion or solitary pulmonary nodule (SPN)

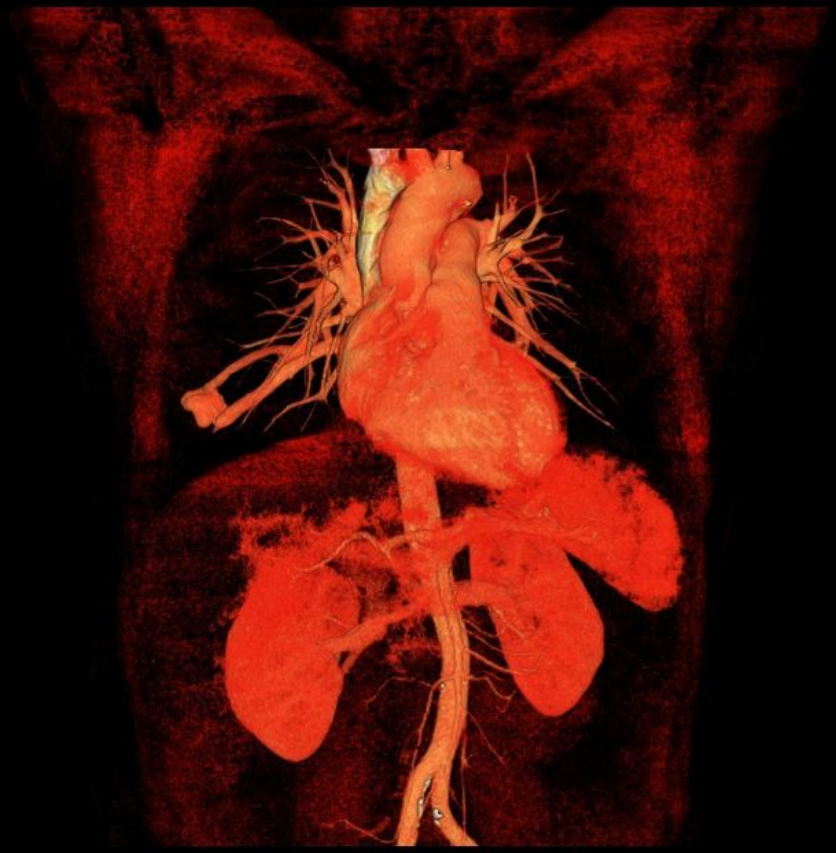
- Female 60 years
- Non-smoker. Follow up chest radiograph. Previous reports of right mid zone opacity dating back 10 years
- This is probably a benign lesion such as a harmatoma



Male 20 years, Cough and haemoptysis.

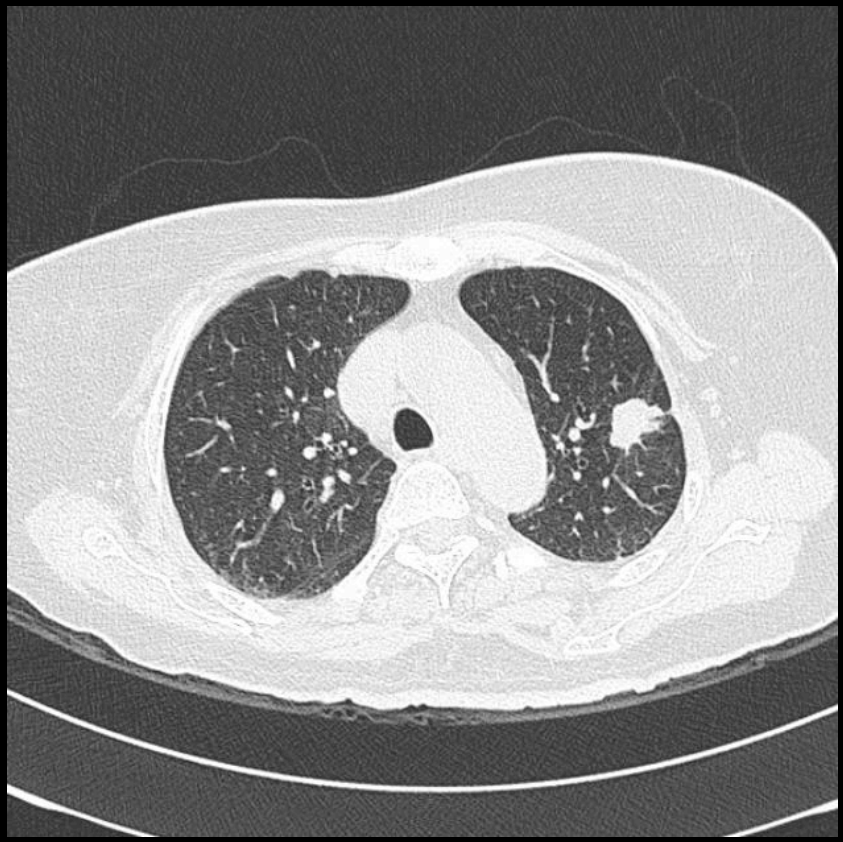


- There is a lobular structure with identical density to it's feeding vessel which is a pulmonary arterial branch. The draining vessel is a pulmonary vein tributary. No other lesions are seen

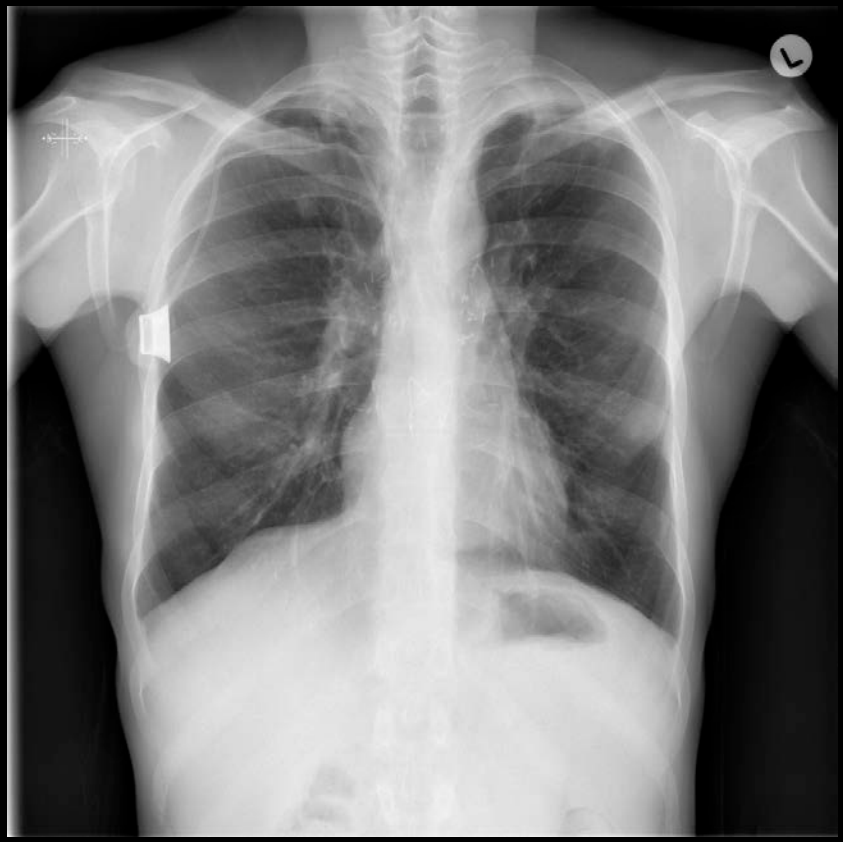


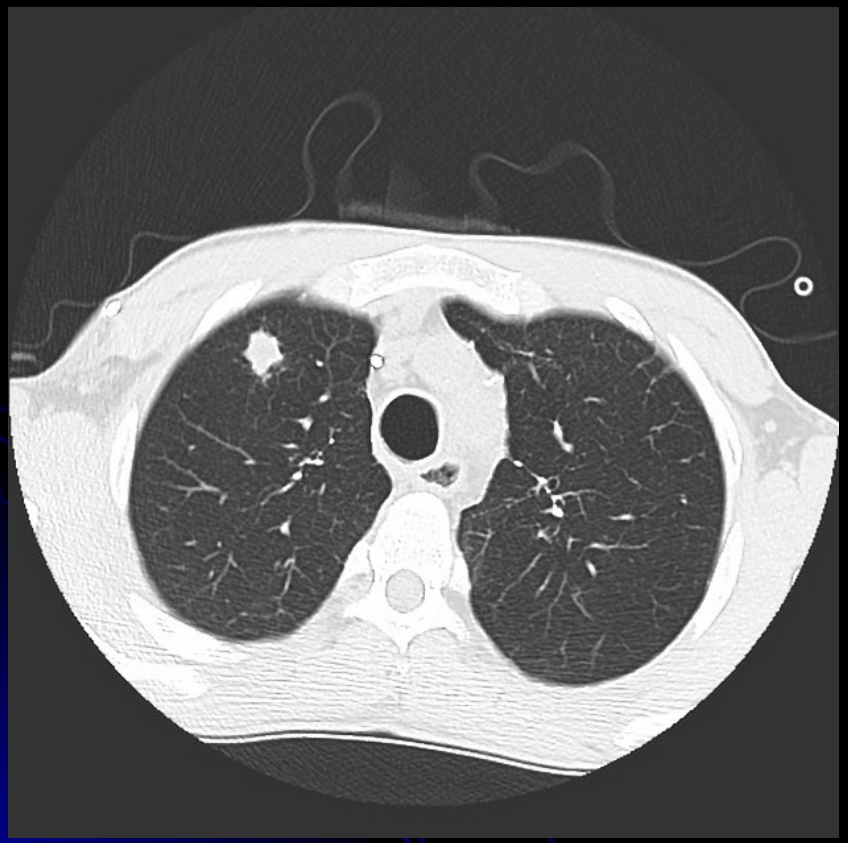
Lung biopsy - adenocarcinoma

- Female 80 years
- Incidental left upper lobe mass on chest x-ray performed during an admission with a stroke.



- Male 35 years
- Previous history of bilateral lung transplant.

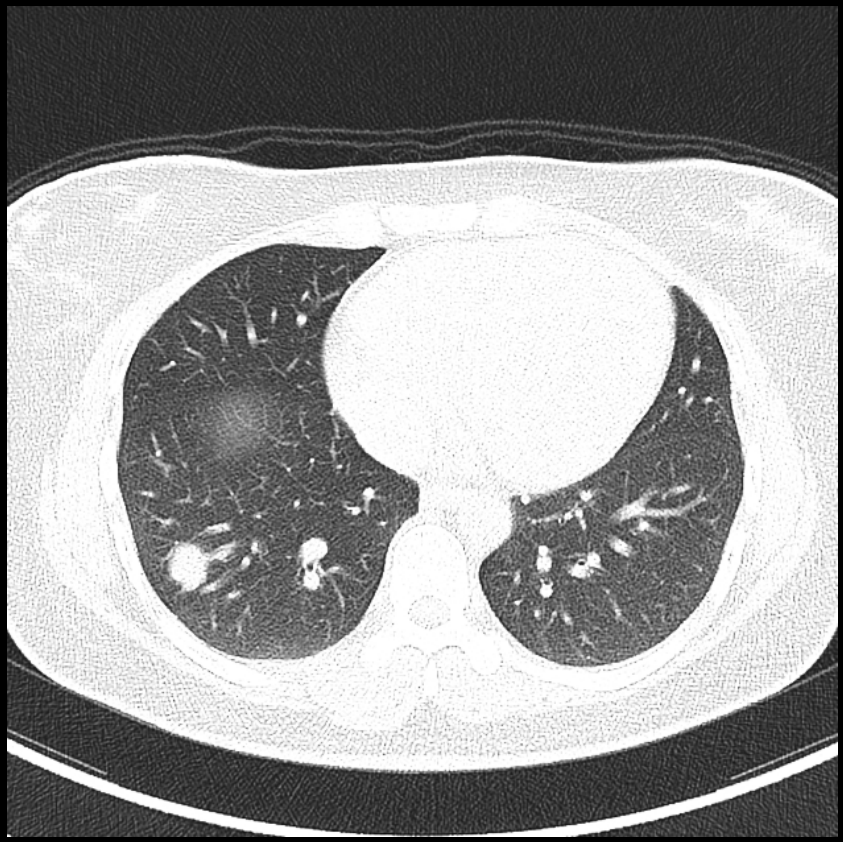




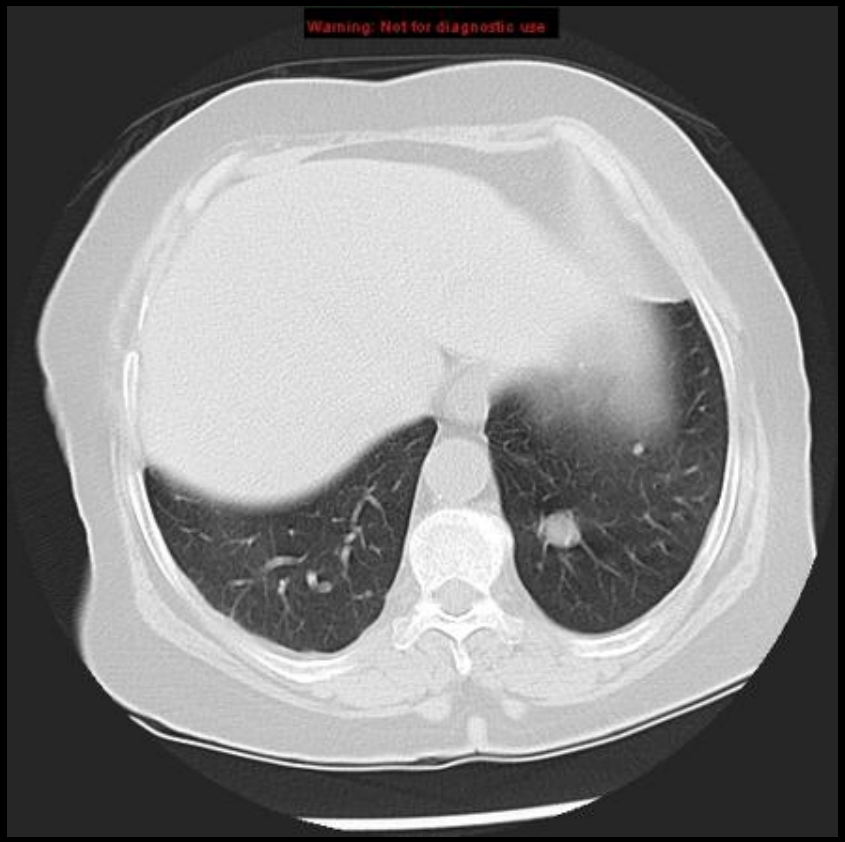
- **Conclusion:** Right upper lobe lung, wedge excision: Features of an acute on chronic Cryptococcal abscess.

Pulmonary inflammatory pseudotumours

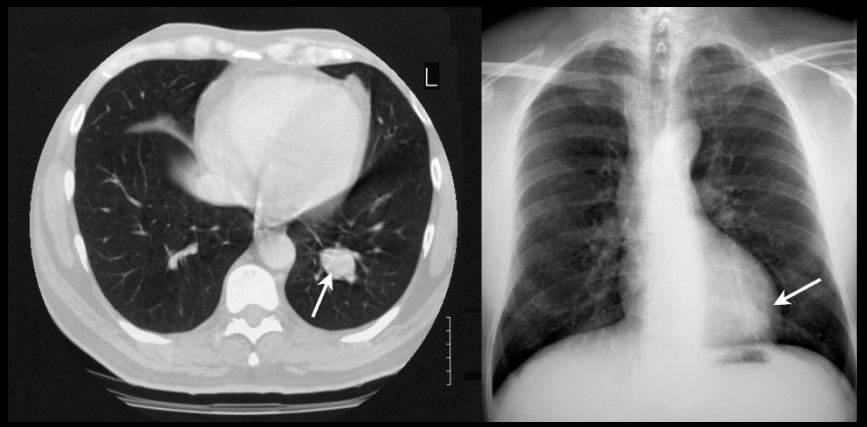
- Thought to occur from an uncontrolled response to lung tissue injury.
- Lesions are typically solitary with a lower lobe predilection.



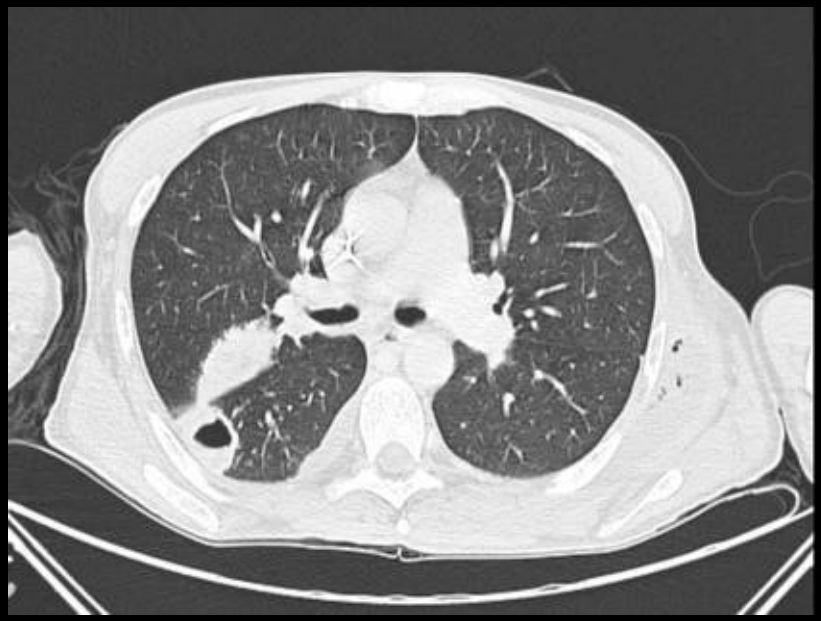
- Female 60 years
- Known right renal cell carcinoma status post nephrectomy.



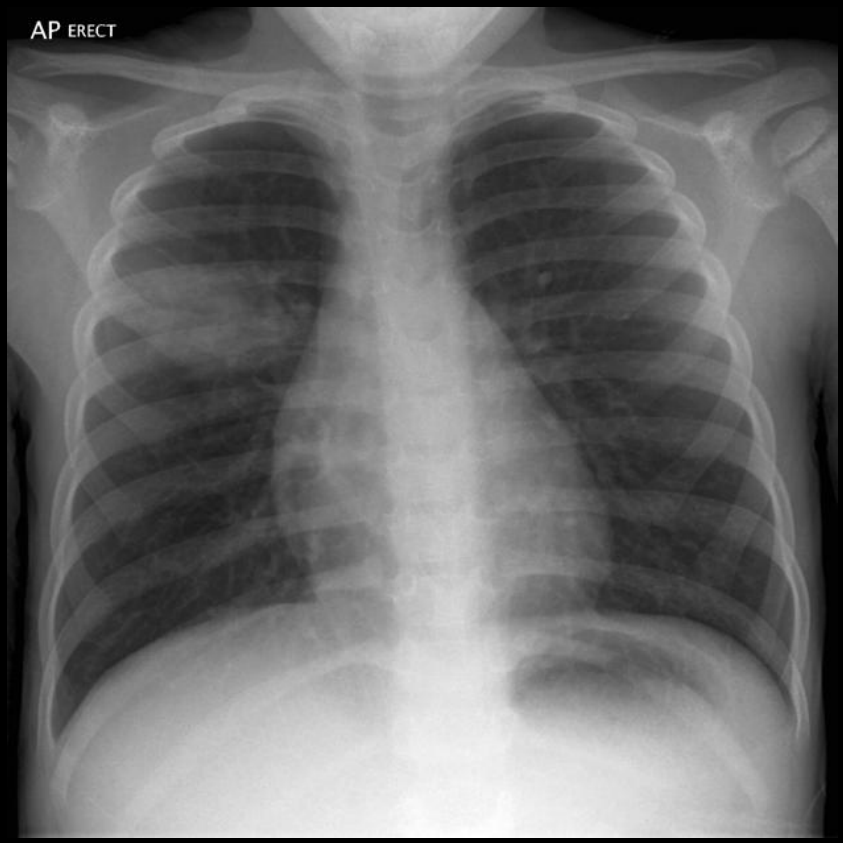
- 62-year-old man
- Findings from percutaneous needle biopsy confirmed a carcinoid.



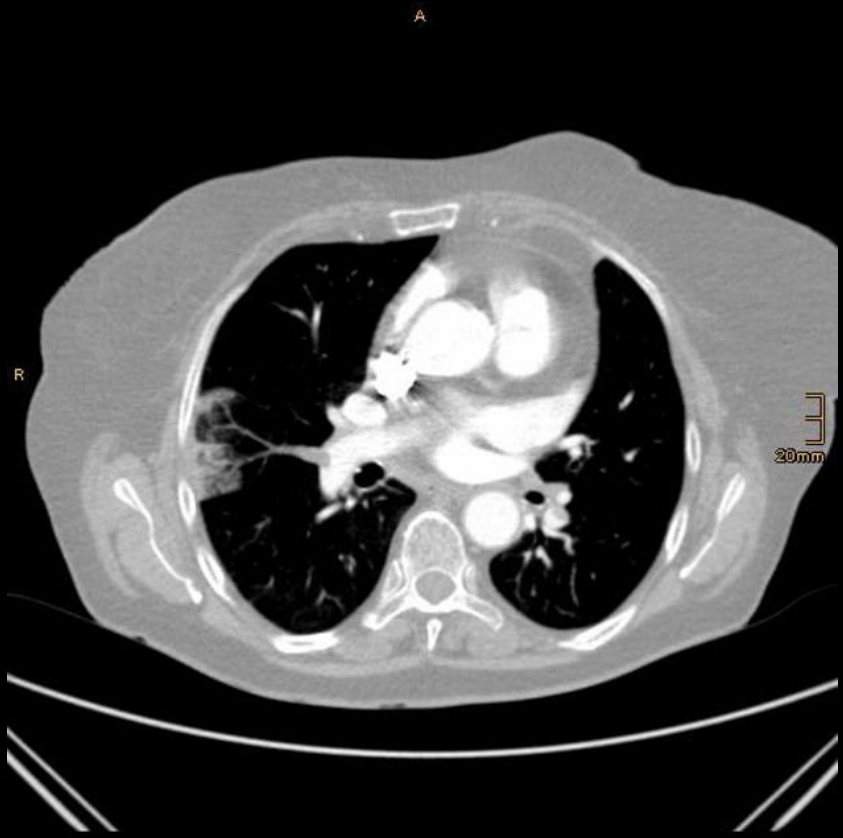
- **Septic pulmonary emboli**



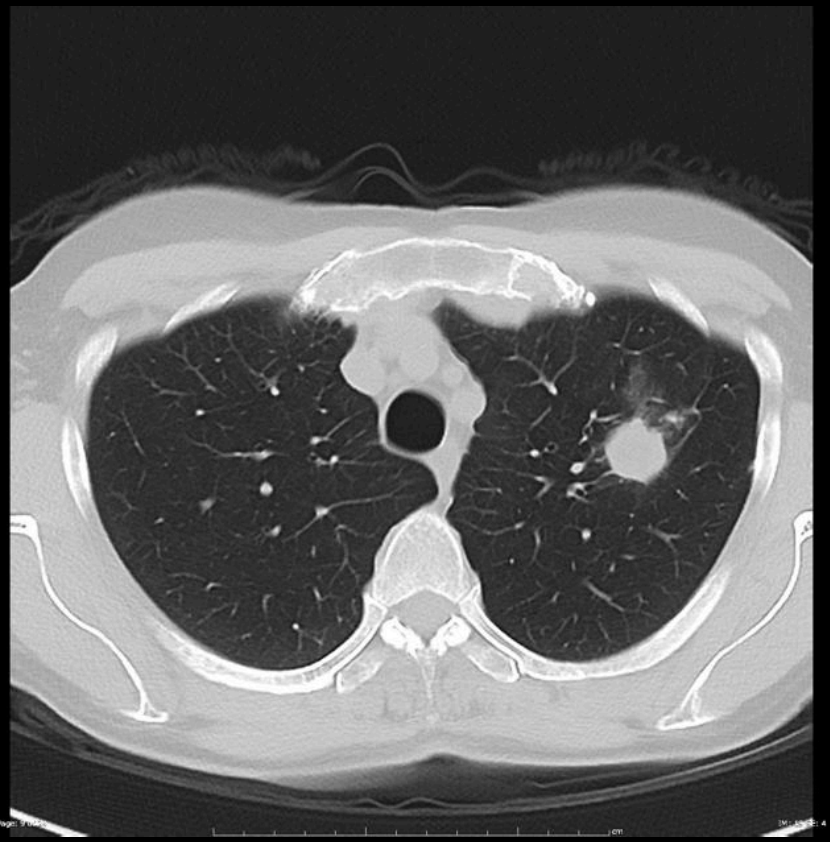
- Round pneumonia
- Round pneumonias are round-ish and while they are well-circumscribed parenchymal opacities, they tend to have irregular margins. They most commonly occur in superior segments of lower lobes and in the majority of cases (98%), they are solitary.



- **Pulmonary embolism with lung infarction**



- **Pulmonary nocardiosis**



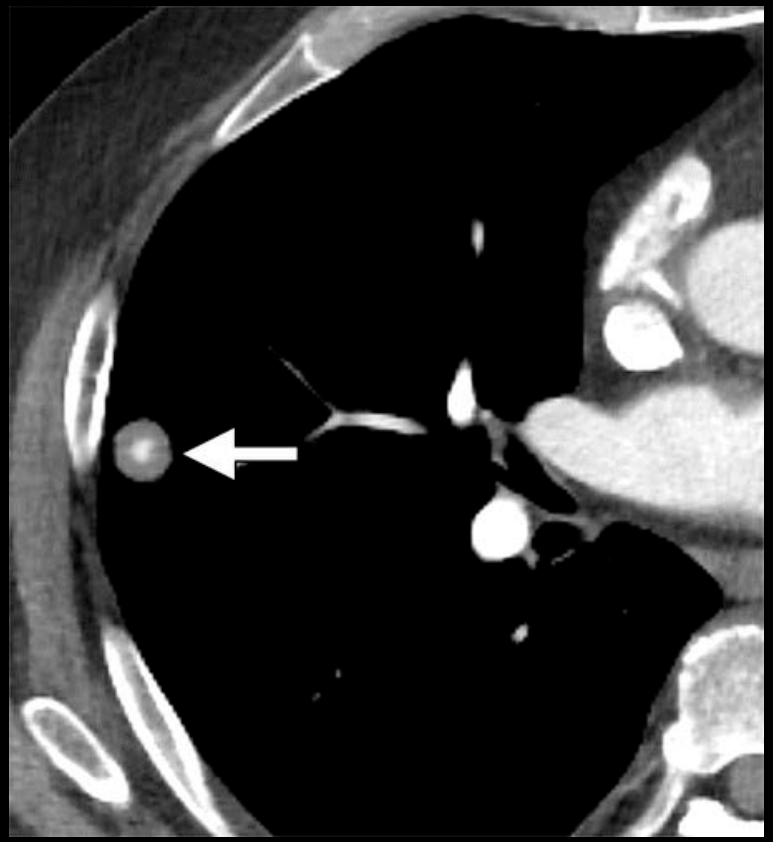
- 40 year old female presenting with a solitary pulmonary nodule

Mucosa-associated lymphoid tissue (MALT) lymphoma.

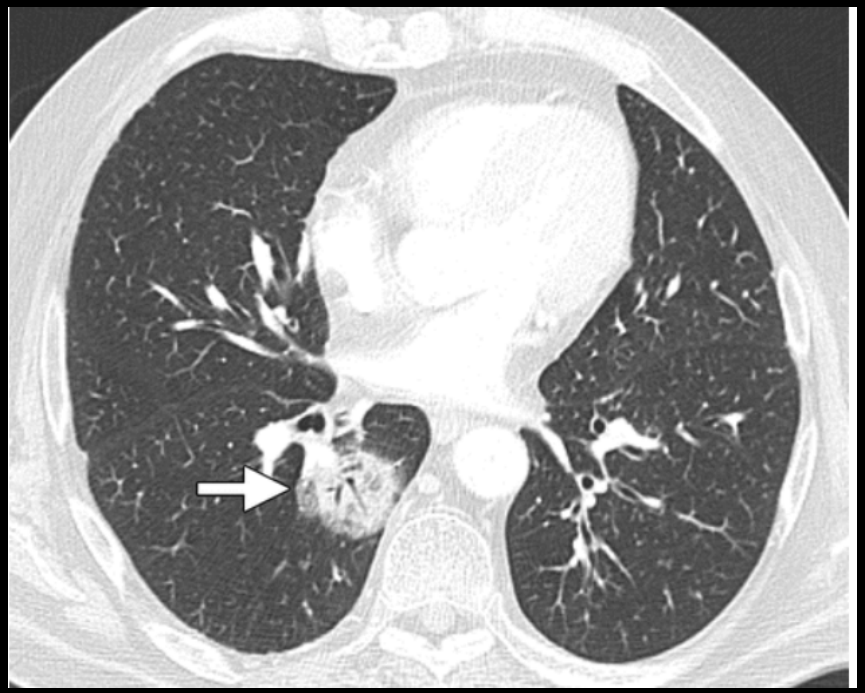
Fig 2. Solitary pulmonary nodule on CT scan

- Hamartoma in a 72-year-old woman with an unknown primary malignancy that metastasized to the liver. Contrast-enhanced CT image shows a well-circumscribed left-lower-lobe nodule (arrow) with low attenuation (−46 HU), a finding consistent with fat. Focal fat can also be seen in a pulmonary nodule in liposarcoma metastases and lipoid pneumonia.

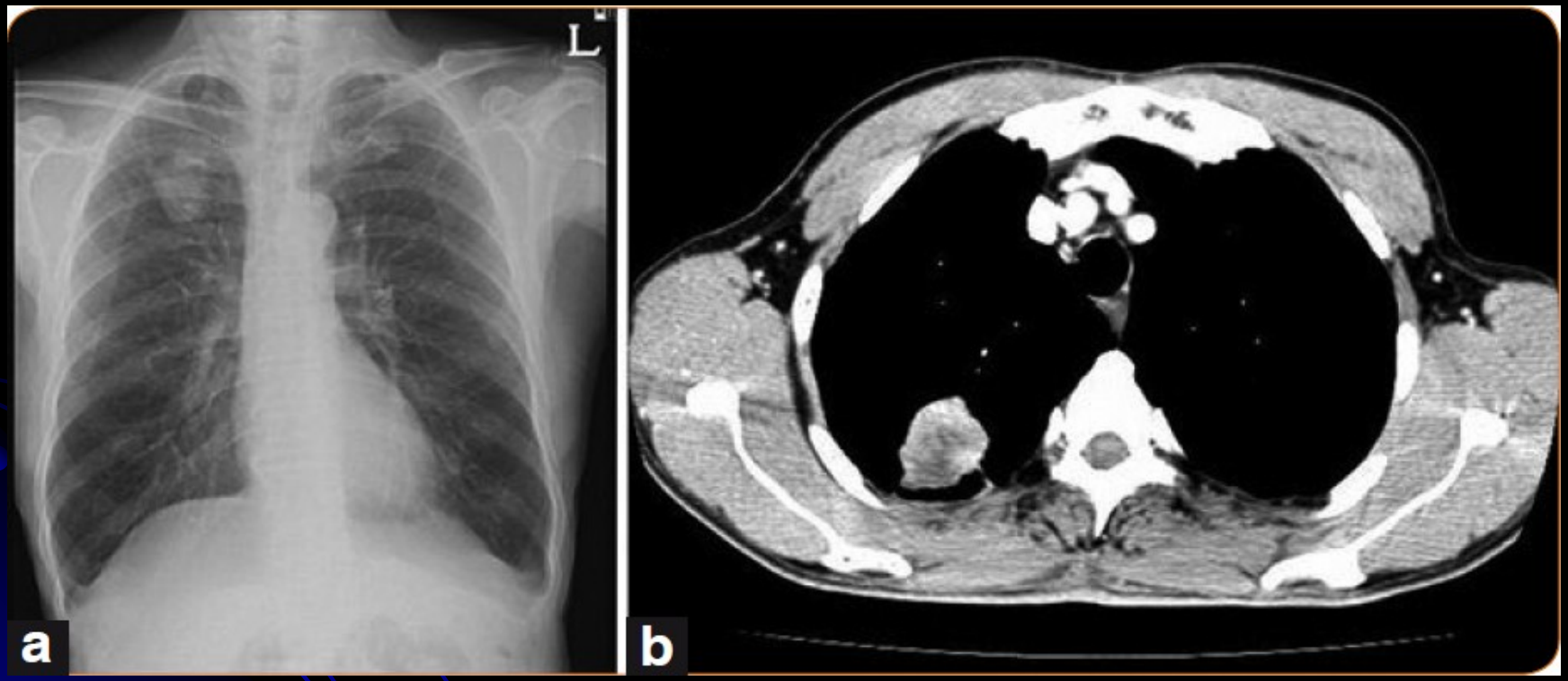
- Benign pattern of calcification in granuloma in a patient from the Ohio River valley. CT image shows a central, or “bull’s-eye,” area of calcification (arrow) that is highly suggestive of granulomatous infection. The nodule is a result of *Histoplasma capsulatum* infection.



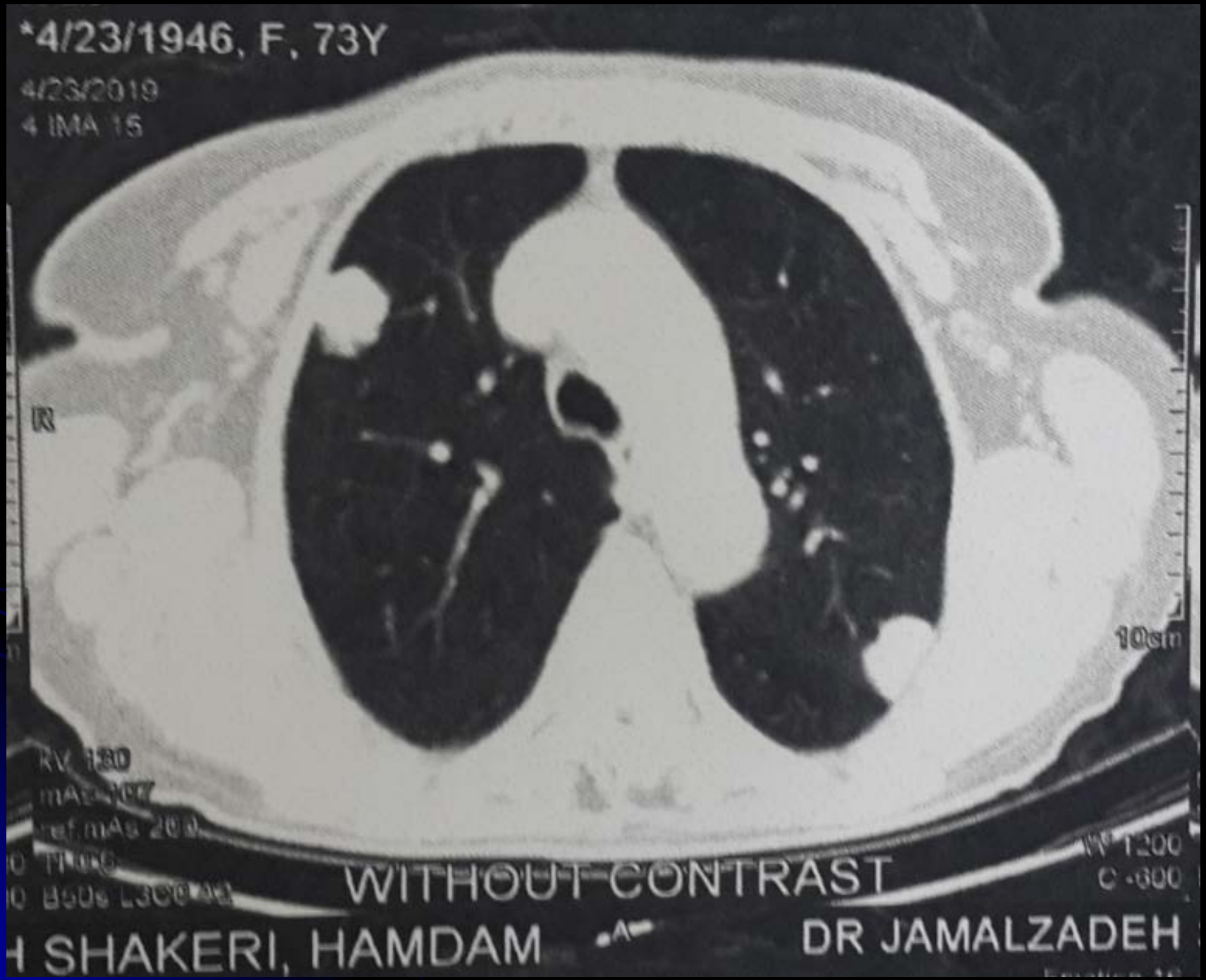
- Fungal pneumonia and the air bronchogram sign in a 62-year-old man with leukemia 2 months after undergoing bone marrow transplantation. Contrast-enhanced CT image shows a right-lower-lobe lesion (arrow) and air-filled bronchi (the air bronchogram sign), findings consistent with pneumonia. Findings from fine needle aspiration biopsy confirmed *Aspergillus* infection.



Solitary pulmonary nodule on chest x-ray. (b) CT scan of same patient showing the mass posteriorly in right lower lobe.Diagnosis is compatible with TB



خانمی است ۷۳ ساله با سابقه نفرکتومی چپ دو ماه قبل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4 IMA 15
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10cm
WITHOUT CONTRAST
DR JAMALZADEH
SHAKERI, HAMDAM

MICROSCOPIC :

Please see the diagnosis.

DIAGNOSIS :

Left Kidney, Total Radical Nephrectomy:

-Clear Cell (Conventional) Renal Carcinoma.

-Histologic Grade (Fuhrman Nuclear Grade):G4

Primary Tumor (PT):PT2

-Vascular Invasion: Present.

-Lymph Vessel Invasion: Not Seen.