

Case Presentation

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Radiology-Pathology Correlation Elective
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Case

- 77yo M with a PMH of CLL, CAD (CABGx4), and ~100 pack-year smoking hx (quit 15 years ago) presents for routine follow-up of a LUL lung nodule.
- He is asymptomatic and has had serial chest CTs since Feb 2016 for lesion surveillance.

Imaging



DDx for Solitary Pulmonary Nodule

- Infection
- Malignancy
 - Adenocarcinoma (60%), SCC (20%), Metastasis (10%), SCLC (4%)
- Rare pathologies
 - Hamartoma
 - Sarcoidosis
 - AVM
 - etc

Solitary Pulmonary Nodules: Calcifications

Radiologic Features Suggestive of Benign or Malignant Solitary Pulmonary

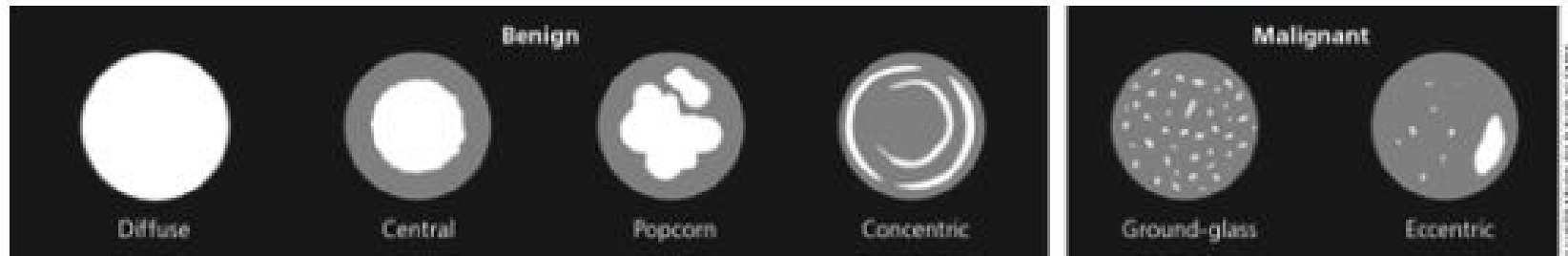


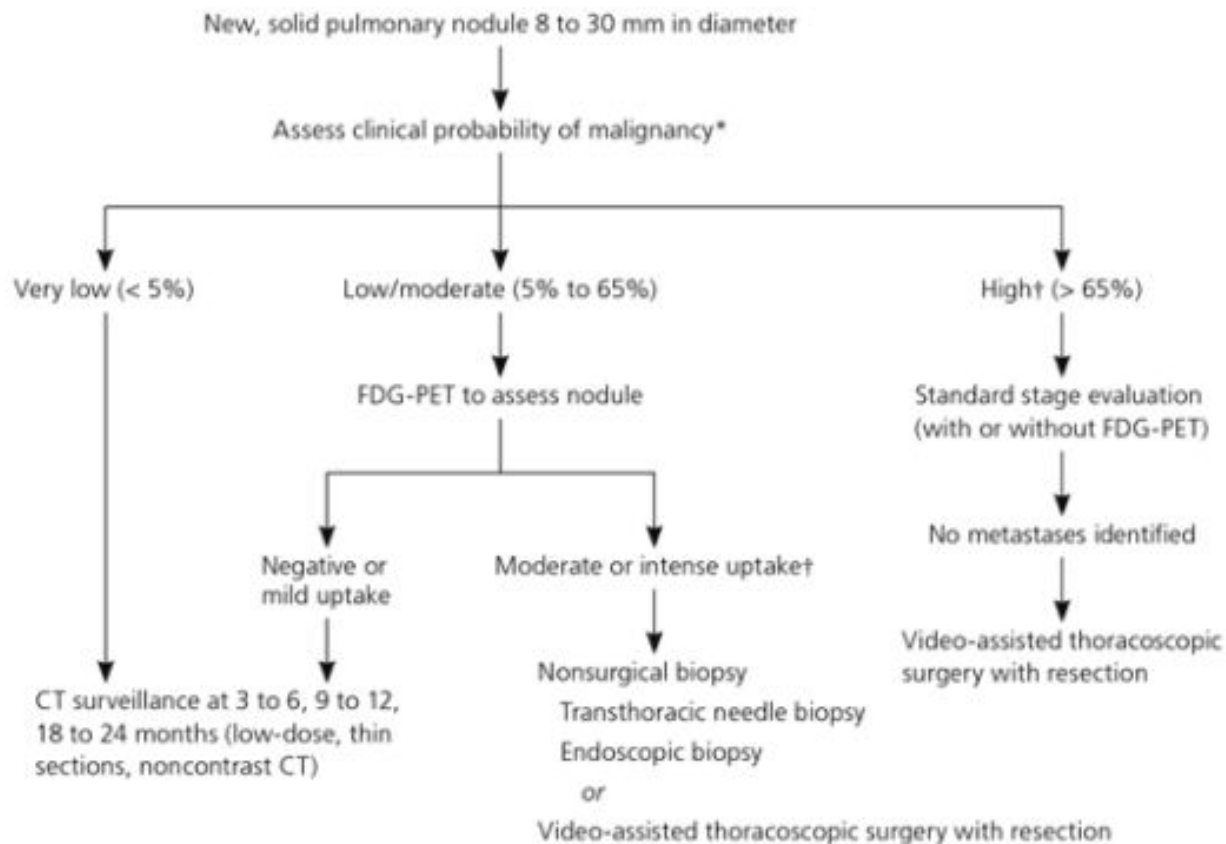
Figure 1.

Patterns of calcification that suggest benign or malignant pulmonary nodules.

Category	Benign	Malignant, ground glass
Doubling time	Less than one month or more than one year	One month to one year
Size	< 5 mm	> 10 mm

Solitary Pulmonary Nodules: Decision Making

Management of Solid Solitary Pulmonary Nodules 8 to 30 mm in Diameter



Lung Cancer Prediction Equation

Input:

Age ▼

Smoker Current or former (1)
 Never smoker (0)

Cancer Extrathoracic cancer more than 5 years prior (1)
 None (0)

Nodule Diameter ▼

Spiculation Yes (1)
 No (0)

Upper Yes (1)

Results:

x 2.30

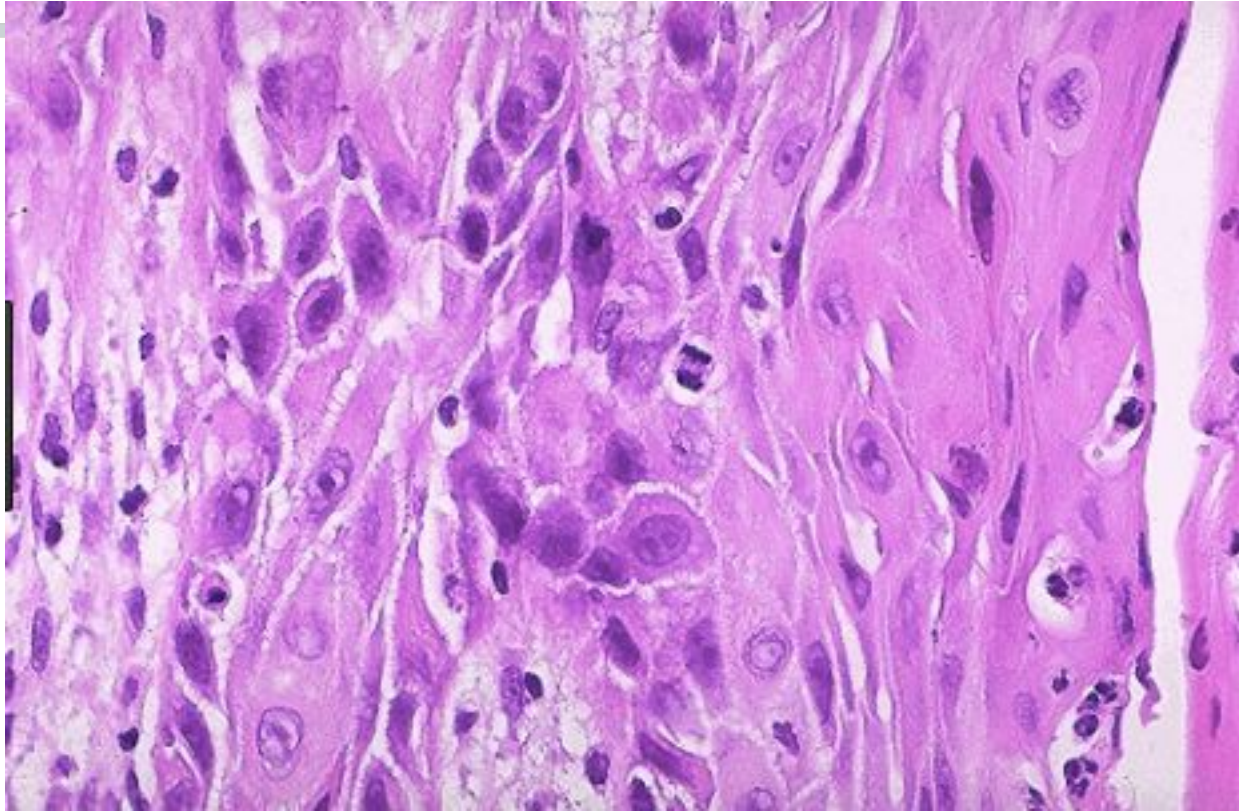
Malign Probability 90.92 % ▼

Decimal Precision: ▼

Biopsy

- Patient was placed in the prone position for CT-guided LUL biopsy.
- FNA and core biopsies both performed.
- No complications

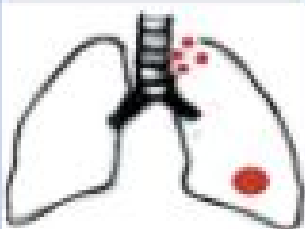


Pathology



SCC Presentation

- 2nd most common primary lung malignancy
- More common in men
- Cough is present in the majority of patients at presentation likely due to the typically central location of SCC lesions (60%)
- Hypercalcemia may be present

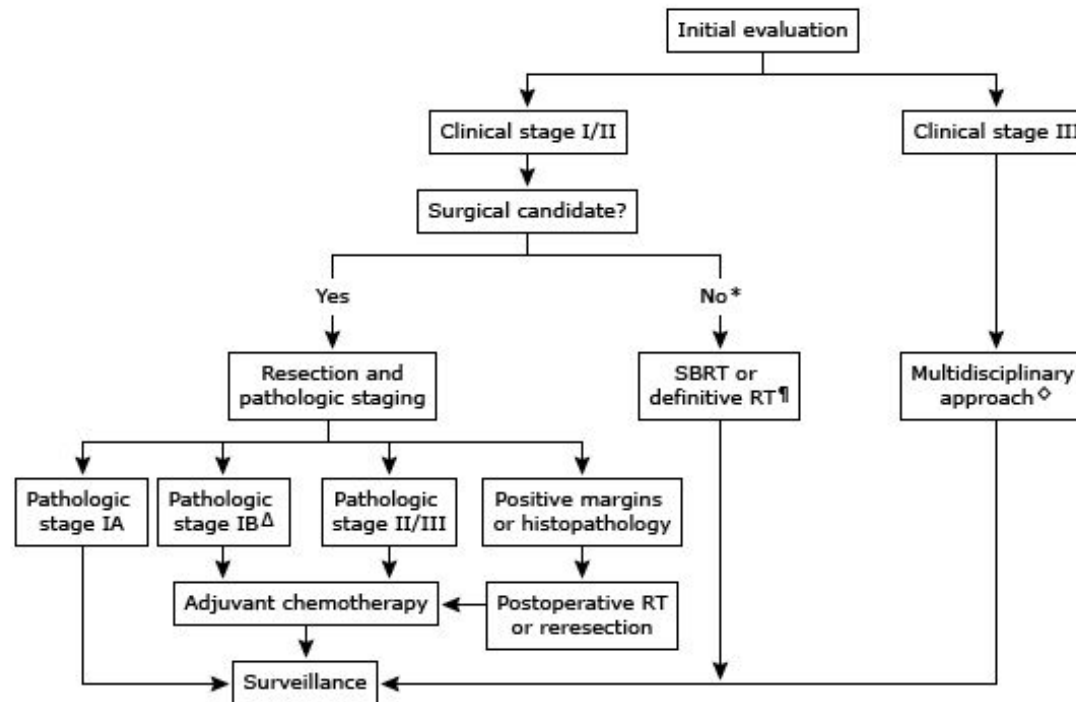
TNM* Staging of NSCLC

Stage IIIA	T1-3 T3	N2 N1	M0 M0	
Stage IIIB	T4 Any T	Any N N3	M0 M0	
Stage IV	Any T	Any N	M1	

T=primary tumor; N=nodal involvement; M=distant metastasis

Management

Treatment of potentially resectable non-small cell lung cancer



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