Patient Case Studies

CyPath® Lung
KNOW MORE. MOVE FORWARD

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CyPath Lung

Patient Case **"James"***: Abnormal Finding on LDCT in High-Risk Patient

Initial presentation — **LDCT** — **CyPath® Lung**

PATIENT BACKGROUND

- 85 yo WM
- Past tobacco use, greater than 20 PYHx
- Asbestos exposure
- COPD/OSA
- Unremarkable FMHx
- High risk status pt requested LDCT for surveillance

IMAGING

- 4/23/2024 LDCT
- Several new subcentimeter (<8 mm), non calcified
- 6 mm LLL non calcified nodule most worrisome
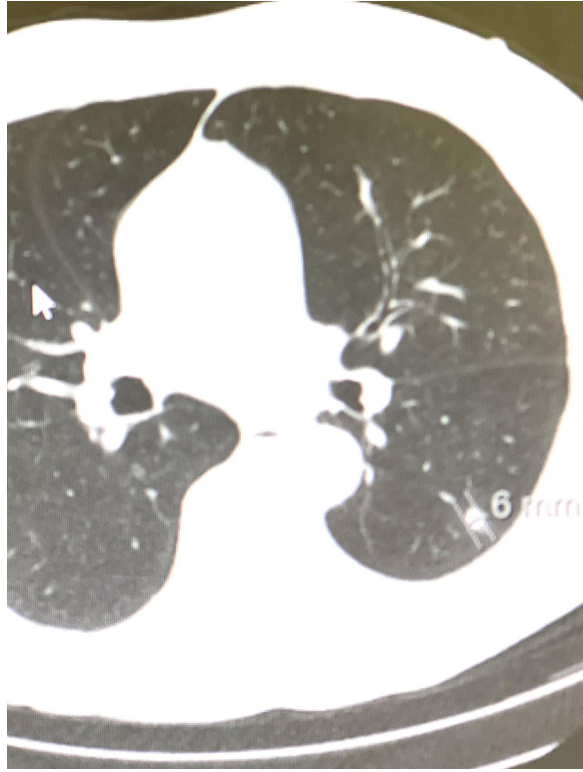- Brock model risk 1.5%

NEXT STEPS w/o CYPATH LUNG

- Sub 8 mm nodule size
- PET scan not recommended with high rate of false negatives
- Biodesix Nodify testing not recommended below 8 mm
- Serial CT scans, robotic bronchoscopic bx, percutaneous bx
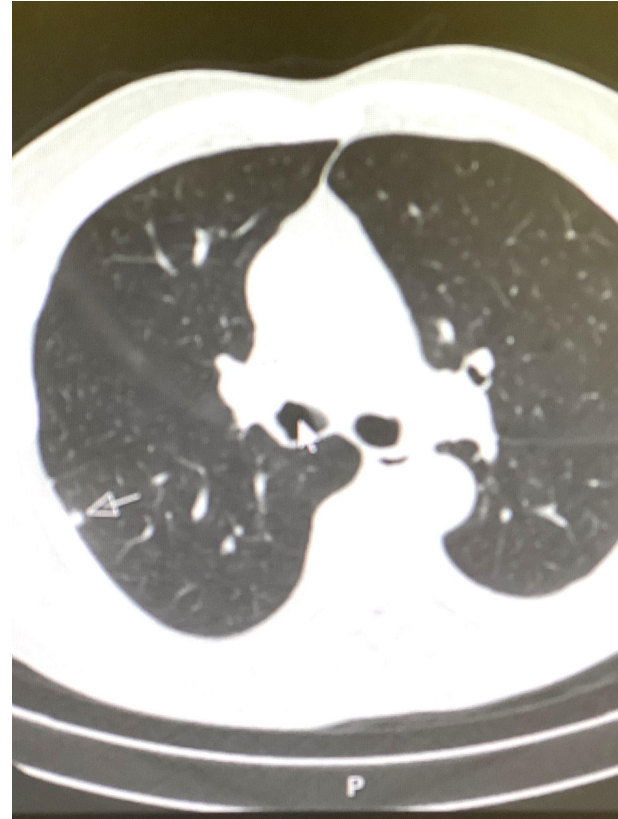
NEXT STEPS with CYPATH LUNG

- CyPath® Lung reported 5/09/24
- 0.46, Unlikely lung cancer
- Given the CyPath® Lung results, pt was comfortable proceeding with serial CT scan rather than robotic bx or high-risk percutaneous bx

The patient described in this case study is a real individual; however, the name has been changed to protect his/her privacy.
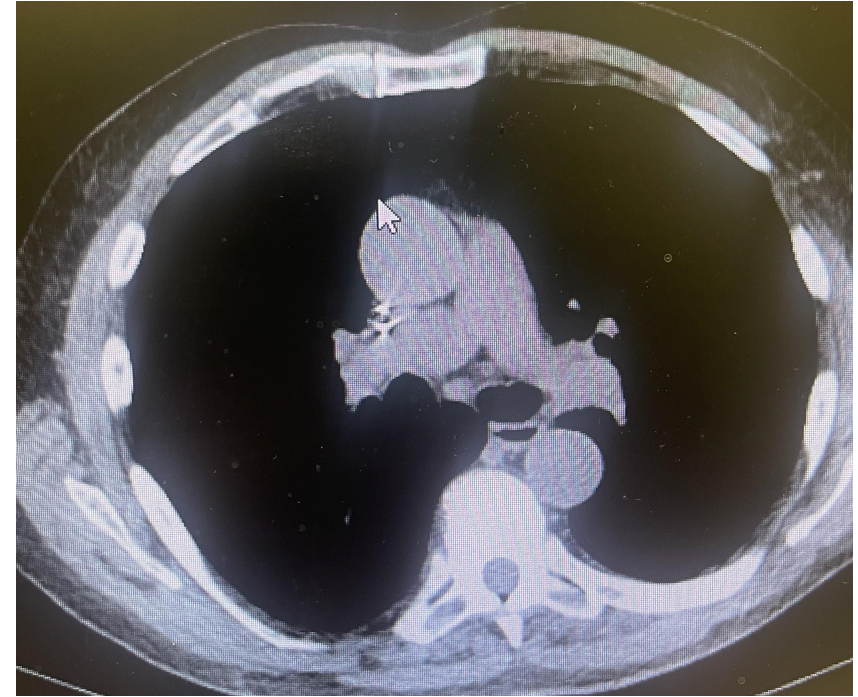
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Patient Case James: Images from Initial LDCT

6 mm nodule LLL

4 mm nodule RLL

Shotty subcarinal node

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Patient Case **James:** CyPath® Lung Report

PRECISION PATHOLOGY
LABORATORY
"A Spirit of Excellence"

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Patient:
Patient DOB/Age/ Sex: ,85, M
Patient ID:
Accession Number:

Collection Date: 05/08/2024
Received Date: 05/09/2024 14:00
Report Date: 05/10/2024 15:56
ICD 10 Codes:

CPT Codes: 0406U X 1

Facility:
Client ID Number:
Ordering Physician:
Copies To:

CyPath Lung Test Results

Patient Sample Result Values is 0.46

Assay Interpretation: UNLIKELY LUNG CANCER

| 0.01 | 0.25 | 0.5 | 0.75 | 1.0 |

Samples Adequate: yes
Number of Alveolar Macrophages per 10,000 = 48.29
Absolute Number of Cells for Analysis = 46391

Reference Range:

Very Unlikely: 0.0 – 0.10
Unlikely: 0.10 – 0.50
Likely: 0.50 – 0.90
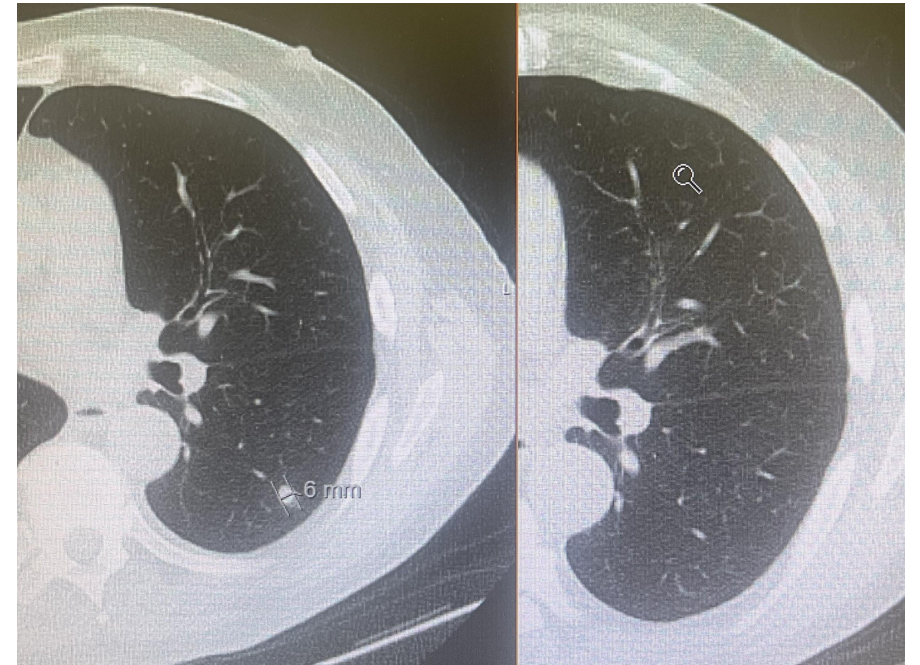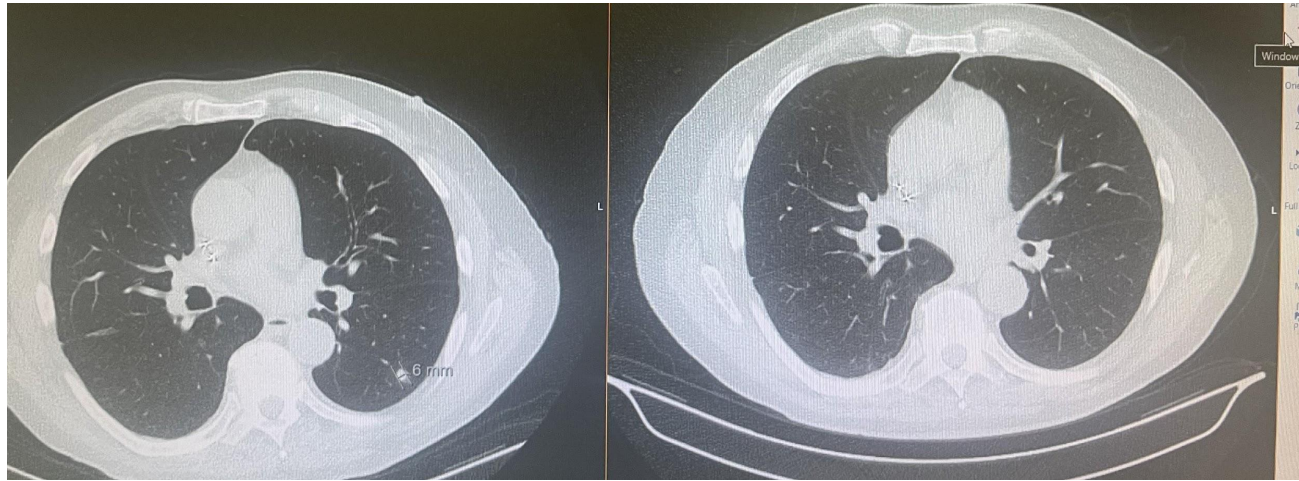Very Likely: 0.90 – 1.0

Signed By:

CyPath Lung

Patient Case James: Abnormal Finding on LDCT in High-Risk Patient

TH returned post 3-month follow-up CT scan of the chest

All non calcified nodules had resolved in the intervening 3 months

Presentation consistent with inflammatory process

CyPath® Lung result directly prevented a robotic or high-risk percutaneous biopsy

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Patient Case James: Abnormal Finding on LDCT (continued)

Outcome   LDCT   CyPath® Lung   Outcome

PATIENT BACKGROUND	IMAGING	NEXT STEPS with CYPATH LUNG	OUTCOME
• Extremely high-risk patient given both tobacco use and asbestos exposure • 99 x lung cancer risk compared to nonsmoker without asbestos exposure	• LDCT in April 2024 with somewhat suspicious non calcified nodules • Follow up CT chest in July 2024 with complete resolution of nodules	• Pt is well read and acutely aware of his extremely high-risk lung cancer status • Despite low Brock model risk estimate pre-CyPath® Lung, pt favored robotic bx	• Pt's latest follow up CT chest Jan 2025 revealed no new nodules • Despite age, he has requested yearly LDCT scan as surveillance

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Lung-RADS 4A

Category descriptor	Lung-RADS score	Findings	Management	Risk of malignancy	Estimated population prevalence
Suspicious Findings for which additional diagnostic testing is recommended	**4A**	**Solid nodules(s):** ≥8 to <15mm (≥268 to <1767 mm^3) at baseline **OR** growing <8mm (<268 mm^3) **OR** new 6 to <8 mm (113 to <268 mm^3)	3-month LDCT; PET/CT may be used when there is a ≥8 mm (≥268 mm^3) solid component	5%–15%	3%
		Part solid nodules(s): ≥6 mm (≥113 mm^3) with solid component ≥6 mm to <8 mm (≥113 to <268 mm^3) **OR** with a new or growing <4 mm (<34 mm^3) solid component			
		Endobronchial nodule			

CT, computed tomography; LDCT, low-dose computed tomography; PET, positron emission tomography.
American College of Radiology. Lung-RADS® version 1.1. Accessed May 9, 2022. https://www.acr.org/-/media/ACR/Files/RADS/Lung-RADS/LungRADSAssessmentCategoriesv1-1.pdf.

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