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Case Report

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# Mucinous Adenocarcinoma Lung Cancer

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## Introduction

Lung cancer is the 2nd most common type of cancer with adenocarcinoma being the typical type of cancer seen. It is also the #1 leading cause of death for both males and females [1]. Mucinous adenocarcinoma is a rare subtype of adenocarcinoma making up about 5% of all lung cancers [1,2]. The epithelial cells undergo a mutation and form columnar cells containg intracyoplasmic mucin. This variant is predominantly located in the lower lobes and can metastasize lung to lung or to the pleura. There is no known cause but certain factors can be associated with it. These factors include smoking, radon exposure, prolonged exposure to asbestos and other harmful chemicals [3].

## Procedures

In 2017, a right lower wedge resection was performed. In 2018, what began as a right lower lobectomy and right upper wedge resection, turned into a complete pneumonectomy.

## Figures

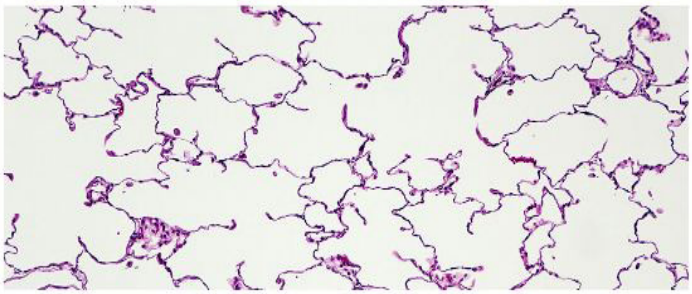

**Figure 1:** H&E stain of normal lung tissue [4].

**Figure 2:** Gross picture of lung from patient [5].

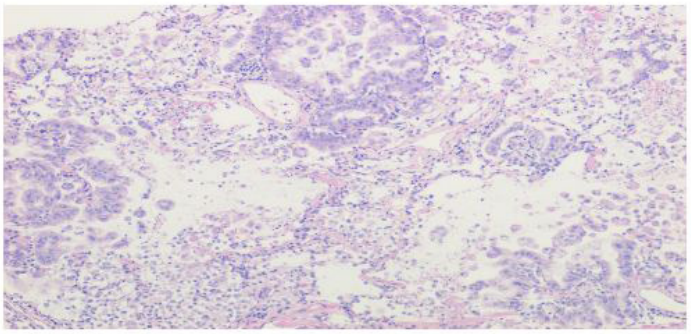

**Figure 3:** H&E stain of lung tissue from patient at 40x magnification [5].

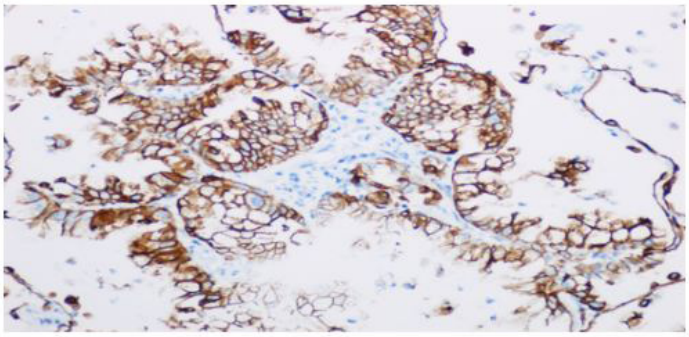

**Figure 4:** CK7 IHC stain of lung from patient at 40x magnification [5].

## Results

A 40-year-old male, former smoker, presented with shortness of breath, a productive cough, dizziness, and fatigue. His cough produced white secretions. He was placed on multiple antibiotics and albuterol with no relief. Patient stated that after a motor vehicle accident, a pipe was damaged and leaked fluid into the car. The carpet was wet and mildew grew. A CT scan was performed and a prominent airspace disease was identified in the right lower lobe and was thought to be pneumonia in 2017.

After no relief, a PET scan was performed to show a heterogenous consolidation in the right lower lobe showed moderately intense FDG uptake consistent with malignancy. A wedge resection of the right lower lobe with frozen section analysis was performed. The patient was diagnosed with mucinous adenocarcinoma. Immunohistochemical stains were performed on this specimen showing that the tumor cells were positive for CK7 and negative for CK20, CDX2, and TTF1. At a later date, a right lower lobectomy and right upper wedge resection was performed. Grossly, 90% of the normal parenchyma was replaced with an ill-defined mucinous process that grossly abuted two of the inked margins and came to within 0.5 cm of another. The middle lobe, which completed the pneumonectomy, did not show any neoplasm involvement. The final diagnosis of invasive mucinous adenocarcinoma with visceral pleural invasion was rendered. The lymph nodes submitted showed no invasion. The staging was classified as pT3 pN0 G1[5]. No additional stains or genetic testing was done.

## References

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