

### INTRODUCTION

- Invasive mucinous adenocarcinoma (IMA) is a distinctive subset of lung cancer.
- Diagnosing and management of IMA can be challenging due to nonspecific clinical presentations.
- This case emphasizes the importance of early bronchoscopy with BAL and biopsy for patients exhibiting pneumonia-like symptoms with lung infiltrates who failed antibiotics.

### CASE

- A 65-year-old male with active smoking history, COPD, and diabetes mellitus
- He presented with persistent dyspnea with clear-sputum cough, low-grade fever, pleuritic chest pain.
- He has been treated with multiple courses of antibiotics, inhalers, and corticosteroids for the past 6 months without significant improvement.
- Patient also notice of unintentional weight loss for 1 year.

- CBC showed mild leukocytosis.
- CT chest showed scattered bilateral ground-glass opacities, numerous small pulmonary nodules, and ill-defined consolidative changes in right lower lobe without lymphadenopathy.
- PET scan revealed hypermetabolic mass in the right lower lobe and bilaterally scattered low-level hypermetabolic ground-glass opacities.
- Bronchoscopy with BAL and trans-bronchial biopsy of right lower lobe infiltrates resulted in stage IV invasive mucinous adenocarcinoma, EGFR and HNF1A mutations negative.
- Patient was later referred to Oncologist and Carboplatin and Pemetrexed were initiated.

### CONCLUSION

- IMA can mimick organizing pneumonia in both presentation and imagings
- Early bronchoscopy with BAL and trans-bronchial biopsy should be warranted in those presenting with pneumonia-like clinical scenario, yet not responding to antibiotics.
- Early diagnosis of lung cancer can significantly improve the patient outcome with appropriate interventional therapies.

### REFERENCES

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2. Beck KS, Sung YE, Lee KY, Han DH. Invasive mucinous adenocarcinoma of the lung: Serial CT findings, clinical features, and treatment and survival outcomes. Thorac Cancer. 2020 Dec;11(12):3463-3472. doi: 10.1111/1759-7714.13674. Epub 2020 Oct 5. PMID: 33021074; PMCID: PMC7705898.

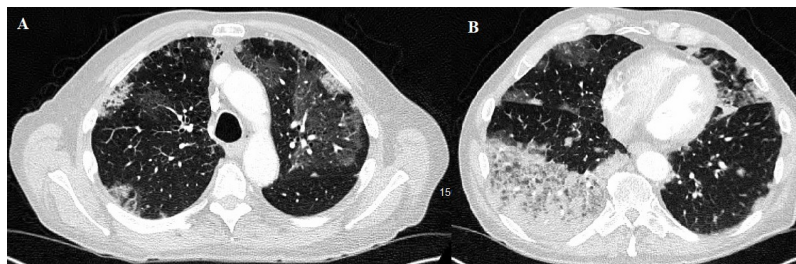


Image 1. Chest CT scan shows bilateral ground-glass opacities (A) and ill-defined consolidative changes in right lower lobe (B)

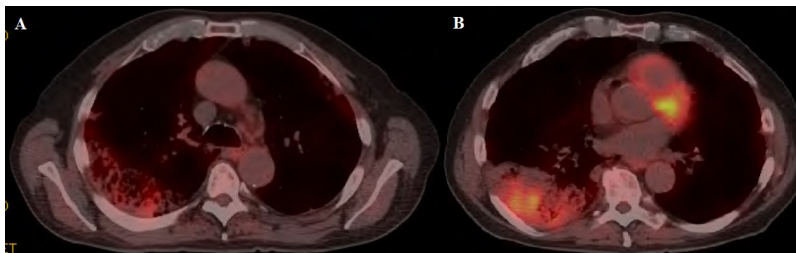


Image 2. PET scan shows GGO with low-level hypermetabolic (A) and hypermetabolic mass in the right lower lobe (B)