

## Invasive Mucinous Adenocarcinoma Lung

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### Background

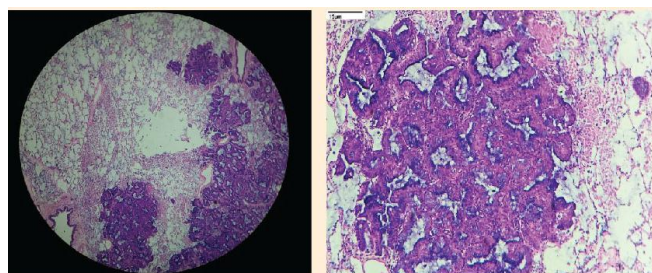
- Pulmonary invasive mucinous adenocarcinoma earlier known as mucinous bronchi alveolar carcinoma is a relatively rare variant of pulmonary adenocarcinoma, but the incidence of this tumor is known to be rising
- Invasive mucinous adenocarcinoma is now recognized as an independent sub-type of lung adenocarcinoma, with different immunohistochemically and molecular features, and different prognosis. IMA accounts for approximately 2-10% of lung adenocarcinomas

### Case Presentation and History

- A 42 year old female known case of Bronchial asthma, T2DM, SHTN on medication presented with 3 month history of shortness of breath and persistent cough with copious mucous production
- She had recurrent fever episodes in the past and her CT chest showed scattered areas of ground glass opacities and patchy consolidation. She was started on empirical antibiotics. Despite antibiotics, she was not improving. She underwent bronchoscopy with BAL negative for infectious aetiologies and negative for cytology

### Management

- She was referred to CTVS for right upper lobectomy with bullectomy



- HPE revealed lung parenchyma with atypical columnar - cuboidal cells with abundant mucin in cytoplasm
- Immunohistochemically staining showed immunoreactivity to CK7 positivity but negative for TTF-1, napsin A and NKX3
- She was referred to medical oncology for postoperative chemotherapy

### Clinical Implications

Invasive mucinous adenocarcinoma is a very uncommon histological subtype of lung adenocarcinomas

- Invasive mucinous adenocarcinoma morphologically characterized by tall columnar cells with abundant cytoplasm that contain varying amounts of mucin
- These tumors have strong correlation with KRAS mutation and lack EGFR mutation
- The most recent WHO classification of lung cancers focuses more on immunohistochemically characterization, which allows for better prognostication as well as the use of targeted therapy

### Conclusion

- Discrimination between invasive mucinous cancer and pneumonia on initial presentation is challenging
- Multicentric infiltrates with presence of multifocal consolidation on imaging, mimicking pneumonia can lead to diagnostic dilemma. Hence a high index of suspicion is very important since it is often misdiagnosed as an infection