# Lung cancer mimicking community acquired pneumonia

Introduction:

Lung cancer sometimes can mimic or present as non-resolving pneumonia. Patients usually present with pneumonia like symptoms not resolving over course of 1-2 weeks despite being treated with antibiotics.

Case:

43-year-old female with an active smoking history of 20 years presented to us with complaints of fever, cough, fatigue, headache, and shortness of breath. One month prior to presentation, she traveled by car for 2 days after spending 2 months in Louisiana. She was recently seen at an outside hospital with similar complaints, where she was treated with a 10-day course of amoxicillin-clavulanate for presumed community acquired pneumonia.
On presentation, patient's vitals were BP 127/87, Pulse 117, Temp 38C, and Oxygen saturation 88%.
On examination, she was noted to have decreased breath sounds on the right lower lung and swelling of the left leg.
Pertinent labs included an elevated white blood cell count (13.4), eosinophils (790), and D-dimer (27,529).
Due to concerns for PE, CT thorax was done, which showed extensive multifocal consolidation of the right and left lungs, mediastinal lymphadenopathy, bilateral pleural effusions more pronounced on the right side, and pericardial effusion. A small PE was also noted on left side. Leg Duplex showed an acute DVT of the left leg.
The patient was started on IV Heparin for the acute DVT and PE. Per pulmonology recommendation, she was started on antibiotics for suspected severe multi-focal community-acquired pneumonia.
She proved refractory to antibiotic treatment. Subsequent work-up for atypical pneumonia included cold agglutinin titer/Mycoplasma titers, Q fever, Chlamydia titers 1:64, Strongyloides, Histoplasma, Fungitell, Cryptococcus, and HIV. All were negative.
Cardiac surgery and pulmonary team were consulted. Patient had pericardial window drained and pleural pig-tail placed. Bronchoscopy was also done. Fluid cytology was positive for adenocarcinoma of lung. Further imaging studies revealed metastases to the brain , left adrenal gland and sacral spine.

Discussion:

Patients presenting with pneumonia like symptoms and not improving despite treatment with antibiotics should undergo further work up to rule out other causes including lung cancer.
High clinical suspicion is required for the early diagnosis as delayed diagnosis can lead to poor prognosis.

