

MULTIFOCAL PNEUMONIA WITH COMPLICATIONS SECONDARY TO ASPIRATION OF RARE ANAEROBE

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Introduction:

In the United States, pneumonia is the most common infectious cause of death and the second most common cause of hospitalizations. Factors such as age, comorbidities, infections, and smoking can predispose individuals to getting pneumonia. This case presents an unusual case of severe pneumonia in an individual with no known risk factors.

Case Description:

A 42-year-old-male with no past medical history presented to the emergency department with a primary complaint of right flank pain radiating to his right chest for nine days. A chest x-ray showed a left lower lobe opacity concerning for pneumonia. Ceftriaxone and azithromycin were administered, and he was discharged with a course of azithromycin. His symptoms initially improved, but two days later he became febrile, the flank pain returned, and he presented to the emergency department. Computed tomography imaging showed a right lower lobe consolidation with an associated right sided pleural effusion and a left basilar airspace opacity. He was discharged after being transitioned from azithromycin to levofloxacin. The next day, he returned to the emergency department with worsening symptoms and a new oxygen requirement. Repeat imaging showed a worsening consolidation in the right lower lobe and left infrahilar region with a large right sided pleural effusion with loculations. Viral panel was negative. Of note, one week prior to symptoms, the patient stayed at a hotel that had a Legionella outbreak one year prior. The patient was admitted to medicine for multifocal pneumonia and started on levofloxacin/metronidazole. This was transitioned to ampicillin-sulbactam for the remainder of his hospitalization. Blood cultures showed no growth. Angiotensin converting enzyme, rheumatoid factor, antinuclear antibody, human immunodeficiency virus, acid-fast bacillus, and legionella urine antigen testing were negative. The patient underwent thoracentesis and placement of two thoracostomy tubes due to concern for an empyema. Pleural fluid studies were consistent with an exudative effusion and cultures grew *Slakia exigua* and *Prevotella loescheii*. At this time, it was revealed that the patient had a dental procedure prior to symptom onset. Repeat imaging showed interval improvement to right sided effusion following chest tube placement with tissue plasminogen activator administration. At the time of discharge, the patient had resolution of acute hypoxic respiratory failure. He was discharged on amoxicillin-clavulanate for an additional 3 weeks.

Discussion:

In an otherwise young, healthy patient with no comorbidities, it is unusual to have developed multifocal pneumonia complicated by parapneumonic effusions and empyema. *Slakia exigua* and *Prevotella loescheii* are anaerobic organisms found in the oropharynx and are commonly associated with oral infection. However, presence of extraoral infection is rare and in this case was associated with community acquired empyema from a likely aspiration event.