

Streptococcus intermedius - An Uncommon Cause of Severe Pulmonary Infections in Immunocompetent Patients

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Streptococcus intermedius is a Gram-positive, facultative anaerobe that is considered a rare cause of severe pulmonary infections in immunocompetent patients.

- Case1: A 69-year-old woman with PMHx of T2DM, and chronic dysphagia presented with worsening shortness of breath for one-week, high WBC, and CT chest showed left large, loculated pleural effusion with LLL consolidation.
- Case2: A 51-year-old woman with PMHx ADHD, depression, anxiety, and RA presented with pleuritic right-sided chest pain for 2 days, hypotension, tachycardia, high WBC, CT chest of the showed large right sided loculated hydropneumothorax with multiple consolidative opacities in right lung.

For both cases pleural fluid analysis was consistent with empyema, culture was positive for *Streptococcus intermedius*. Chest tubes were placed. Both patients responded to a combination of medical and surgical treatment and were discharged from the hospital in a stable condition.

Discussion: *Streptococcus intermedius* is commonly identified in abscesses of brain or liver. However, it is important causative agent of severe respiratory infections, including necrotizing pneumonia, lung abscesses, and empyema. *S.intermedius* is the causative of about 13-44% of pulmonary abscesses and/or cases of empyema, and accounts for around 2-5% of cases of bacterial pneumonia. Aspiration of oral secretion is the main risk factor. *S. intermedius* is generally susceptible to beta-lactam agents, including penicillins and cephalosporins, though some cases of resistance have been reported. In patients who are allergic or resistant to beta-lactam antibiotics, vancomycin may be considered an appropriate alternative. The duration of antibiotic therapy may vary from 2 to 4 weeks.