

Streptococcal Pneumoniae Mycotic Aneurysm: A Rare Case of Disseminated Pneumococcal Disease in an Immunocompetent Host

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Introduction: Mycotic abdominal aortic aneurysm (MAAA) is a rare infection of the aortic wall that may progress to aortic rupture. The most common infecting organisms are Staphylococcus and Salmonella species. Clinical characteristics are diverse and depend on the source of the infection. We present a case of mycotic AAA caused by Streptococcus pneumoniae without an apparent source of infection.

Case Presentation: A man in his sixties presented to the hospital with a three-day history of low back pain, chills, and rigors. CT revealed a ruptured AAA measuring 5.3 cm with stranding and multiple prominent adjacent lymph nodes. MRI lumbar spine showed prevertebral edema. AAA repair was performed with a rifampin-soaked tube. Cultures taken from the aneurysm revealed S. pneumoniae. He was treated with intravenous beta-lactam therapy for six weeks, followed by one year of amoxicillin for suppression. Pneumococcal vaccine was recommended to prevent future infections.

Discussion: S. pneumoniae makes up approximately 8% of all bacterial abdominal aortic aneurysms. Common symptoms include abdominal and back pain, pulsating mass, fever, and sepsis. Diagnosis is suggested by findings of lymphadenopathy on imaging and confirmed with positive surgical cultures. The use of antimicrobial therapy and surgery are essential for management. Pneumococcal vaccination is underutilized as defense against invasive disease. Disseminated pneumococcal disease in an immunocompetent host is a rare phenomenon in recent years due to vaccination, with review of the literature revealing only one similar reported case. Our case highlights the importance of vaccinations in preventing disseminated infection in even the healthiest of patients.