

Research Symposium

PURULENT PERICARDITIS WITH TAMPONADE DUE TO *H. INFLUENZAE* IN AN IMMUNE COMPETENT HOST

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INTRODUCTION

Since the development of vaccinations and antibiotics, purulent pericarditis has become a rare cause of visits to the Emergency Departments. With incidence of pericardial disease as low as 0.1% in hospitalized patients with chest pain, and variable management depending on etiology, the emergency Physician must recognize and treat rapidly and accurately. Risk factors for this life-threatening malady include immune-compromise, intrathoracic infection, and recent thoracic surgeries. *H. influenzae* is an uncommon organism to cause purulent pericarditis, with only 15 reported cases by 2006.

CASE DESCRIPTION

We present a case of purulent pericarditis presenting in tamponade in an immune competent host. This 49-year-old male presented with chest pain, shortness of breath and a viral prodrome. A consolidation on chest-x-ray prompted empiric administration of Ceftriaxone and Doxycycline soon after presentation. He later became hypotensive, and bedside echocardiography noted tamponade physiology.

Nearly 1 liter of purulent fluid was aspirated from his pericardial space with resultant clinical improvement and survival to discharge. The culture of this fluid grew *H. influenzae*, likely representing hematogenous spread from his pneumonia. The patient received two weeks of Ceftriaxone with resolution of his symptoms.

DISCUSSION

Recognition of tamponade requires swift utilization of bedside echocardiography, with the expertise to recognize diastolic collapse of the right ventricle. Pericardiocentesis is best performed by a cardiologist, but in the setting of hemodynamic instability this falls to the emergency Physician. Broad spectrum antibiotic coverage should not be delayed, though gram-positive organisms are most often implicated. *H. influenzae* is an incredibly rare cause of purulent pericarditis with *Staph aureus* being most common in developed countries. If the patient has recently traveled, one must consider *M. tuberculosis* as this is the most common cause of purulent pericarditis worldwide and is frequently associated with coinfection with HIV.

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