



Pericardial Abscess in a Cardiac Transplant Patient

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Clinical Image

Mediastinitis in immunocompromised patients may present with subtle signs and symptoms. A 49-year-old woman with a history of post-partum dilated cardio myopathy, paroxysmal atrial fibrillation, and got presented with acute or chronic decompensated heart failure in 7/2016. She underwent heart transplantation 8/2016. Her post-operative course was complicated by delayed chest closure, right ventricular dysfunction requiring prolonged inotropic support, and acute kidney injury necessitating continuous renal replacement therapy (CRRT). Hemodynamics by right heart catheterization showed restrictive filling patterns.

Approximately 3 months post heart transplantation, the patient complained of right flank pain without a clear cause by imaging studies. She proceeded to exhibit malodorous, purulent drainage from an old mediastinal chest tube site, without frank fever, chills or leukocytosis. The fluid culture grew *Morganella morganii*. A computed tomography (CT) scan of the chest showed multiple loculated pericardial fluid collections along the inferior surface of the heart (Figures 1 and 2). The patient was urgently taken to the operating room for a pericardial window with drainage of copious amounts of purulent fluid. There was an old fibrinous clot which was shaggily adherent to the heart and to the diaphragmatic surface. Transthoracic echo showed the supradiaphragmatic space seemed to be retarding right ventricular filling. In addition to receiving intravenous antibiotics, the patient endured approximately 20 washout and debridement while the pericardial sac was irrigated with antibiotic solution.

In conclusion, we would like to alert clinicians to consider *Morganella morganii* as a potentially fatal pathogen in those who are immunocompromised [1,2]. To date, there have been four articles published in reference to pericarditis caused by *Morganella morganii*. Three of the four cases reported were found among immunocompromised individuals [1]. Generally not prone to causing harm in

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Figure 1: Axial non-contrast CT of the chest demonstrates a loculated pericardial effusion (fat arrow) with thickening of the pericardium and septations within the pericardial space. Relative increased density of pericardial fluid compared to pleural effusion (asterisk) suggests the collection is exudative in composition. There is extension of the collection into the anterior chest wall (thin arrow).

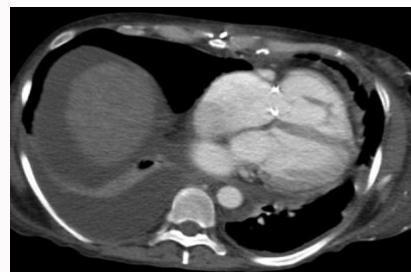


Figure 2: Contrast enhanced CT of the chest 3 months after therapy demonstrates complete resolution of the pericardial effusion.

the immunocompetent population, *Morganella morganii* is typically found within the urinary tract and normal flora of the intestine [2]. It is important to have a high index of suspicion as immunosuppression may mask hallmark symptomatology of mediastinitis. Timely CT imaging is essential when evaluating for mediastinitis. Source control with antibiotic coverage and recurrent washouts and debridement are the mainstay interventions in managing this deadly gram-negative bacterium. Thus far this patient has remained in stable condition without recurrent evidence of infection.

References

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