中文題目：金黃色葡萄球菌感染性心內膜炎併發心包膜膿瘍

英文題目：Staphylococcus aureus infective endocarditis complicated with pericardial abscess

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Introduction

Pericardial abscess (or purulent pericarditis), usually presents as acute febrile illness with diffuse involvement of the whole pericardium, is a very rare condition that could result from hematogenous spread, direct spread from an adjacent infectious focus, trauma or surgery. End-stage renal disease is one of the predisposing factors. High mortality rate was noted if patient with pericardial abscess did not receive early appropriate diagnosis and treatment.

Case Presentation

A 65-year-old man, with history of end-stage renal disease (ESRD) and initiated on first hemodialysis session 3 months ago, presented to emergency room because of hypotension and altered mental status were found while on hemodialysis at other hospital. Cardiac pulmonary resuscitation (CPR) was performed before sending to our hospital. Return of spontaneous circulation at triage but Leukocytosis (24400/μL) and elevated C-reactive protein (240.19 mg/dL) were found. Left exudative pleural effusion was drainage. Two sets of blood culture grew Methicillin-susceptible *Staphylococcus aureus* (MSSA). Because of uncertain septic focus and lack of response to antibiotics treatment, inflammatory whole body scan (Ga-67 Scintigraphy) was performed and infective endocarditis was highly suspected. Transesophageal echocardiography (TEE) confirmed infective endocarditis involving aortic valve and mitral valve. Contrast-enhanced chest computed tomography (CT) scan showed moderate amount of pericardial effusion. Pericardiocentesis revealed pus-like pericardial effusion, which gram stain showed Gram positive cocci, too. Pericardial window and partial pericardiectomy were done under the impression of pericardial abscess formation. Culture from pericardiocentesis and operation revealed negative. Oxacillin treatment continued after surgery to complete 6 weeks. Constrictive pericarditis presented as blood pressure dropped during initiation of each hemodialysis session. He discharged 44 days after admission treatment course with diagnosis of infective endocarditis complicated with pericardial abscess.

Discussion

Pericardial abscess is a rare complication of Staphylococcus aureus bacteremia. Patient with untreated pericardial abscess and combination of cardiac tamponade results in a mortality rate approaching 100%. Other microorganisms causing pericardial abscess include *Mycobacterium tuberculosis*, gram-negative bacilli, *Streptococcus* species, anaerobes, and *Aspergillus*. Predisposing factors of pericardial abscess include pericardial effusion, chronic kidney disease, immunosuppression, alcohol abuse, cardiac surgery, and chest trauma. In this case, the pathogenesis of Staphylococcus aureus endocarditis and pericardial abscess was uncertain, but could be related to prolong femoral double lumen catheter implantation for hemodialysis previously. Early intervention is important to prevent further complications. The treatment for pericardial abscess includes intravenous antibiotics and drainage. Surgical interventions (evacuation with or without pericardectomy) are more response than antibiotics combination with pericardiocentesis.