

中文題目：個案報告:乾酪樣二尖瓣環狀鈣化合併嚴重細菌性心內膜炎

英文題目：Caseous mitral annular calcification as a possible nidus for bacterial endocarditis, a case of infective endocarditis with severe complication

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Introduction : Mitral annular calcification (MAC) is a chronic inflammation process with similarities to atherosclerosis and is common in the elderly or dialysis patient. MAC is generally considered as a benign process. Caseous mitral annular calcification (CMAC), a rare variant of mitral annulus calcification, characterized by central liquefaction necrosis, may act as a nidus of bacterial infection or systemic embolization. Here we presented a case with CMAC who had infective endocarditis (IE) with emboli complication and full recovery after medication.

Case presentation: A 56 year-old woman with history of end-stage renal disease under regular hemodialysis and coronary artery disease post percutaneous coronary intervention, had fever and whole-body bone pain since one week before admission. Oxacillin-susceptible *Staphylococcus aureus* bacteremia was soon discovered. Abdominal and chest computed tomography showed septic emboli at bilateral lungs. Transthoracic echocardiography (TTE) on Day 2 of admission showed heavily calcified posterior mitral annulus, and the first transesophageal echocardiography (1st TEE) on Day 8 reported no vegetation but a calcified nodule with central echo-lucent area at the posterior mitral leaflet. Right arm arteriovenous graft (AVG) was suspected to be an infection focus initially due to local erythema, swelling, pain and heat and was removed on Day 10. High dose cefazolin was administered. However, acute-onset slurred speech developed on Day 13. Brain magnetic resonance imaging showed scattered infarction in right frontal-temporal lobes, bilateral coronae radiatae and hemorrhage in left frontal lobe, left temporal lobe, and right cerebellum, suspected to be related to septic emboli. The second TEE revealed ruptured caseous mitral annulus calcification, which implied the bacteria had been spread out and Cardiac computed tomography indicated a smaller vegetation at anterior mitral leaflet and a calcified vegetation at the posterior mitral leaflet. Antibiotic was shifted to oxacillin after the brain insult and then switched to ceftriaxone because of fluid overload. The third TEE performed on Day 43 showed that the caseous calcification looks the same as that on 2nd TEE. We discontinued the antibiotic, and she was discharged on Day 44 without any neurological sequelae.

Discussion : The echocardiographic diagnosis of IE with CMAC is difficult because the

vegetation maybe masked by artifacts and shadowing of the calcification. The caseous necrosis of the annulus is a hint of vegetation. Prolonged antibiotic treatment or surgical intervention are considered to avoid severe sequelae.