

中文題目：於血液透析病患發生導管感染合併上腔靜脈贅生物經導管移除及抗生素治療：案例報告

英文題目：Long-term catheter infection with superior vena cava vegetation post catheter removal and appropriate antibiotics course in a hemodialysis patient

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Background: Chronic indwelling hemodialysis catheter usually had higher infection rate than arteriovenous fistula or graft. Besides, fibrin sheath on catheter may exist and could serve as potential nidus for infection or vegetation. Here we presented a case of hemodialysis catheter related infection, complicated with superior vena cava (SVC) vegetation and right-sided endocarditis.

Case report: A 76-year-old female had history of severe aortic stenosis (AS) receiving valve replacement, heart failure, diabetes and end-stage kidney disease under hemodialysis with permanent catheter at right internal jugular vein. She visited our emergency room due to fever. Leukocytosis and lactate acidosis were found. Empirical antibiotics with ceftazidime, doxycycline and vancomycin were administrated.

After admission, antibiotics was shifted to ampicillin for enterococcus faecalis bacteremia. Blood culture recollected 3 days later still showed positive yield from permanent catheter while negative result was found in peripheral vessel. Transthoracic echocardiogram (TTE) showed no vegetation but severe AS. Transesophageal echocardiogram (TEE) was further arranged and found vegetation at SVC. To survey if metastatic lesions, chest computed tomography (CT) demonstrated SVC filling defects.

Permanent catheter was removed after vegetation was confirmed. We kept antibiotics with ampicillin and ceftriaxone for 6 weeks. Blood culture thereafter were all negative. The patient was discharged after full antibiotics course.

Discussion: For vegetation detection, TEE had the advantage of higher sensitivity and could found vegetation not found in TTE in previous studies. CT also had role but it could not substitute TEE due to difficulty in differentiate thrombus or vegetation and could not evaluate heart motility. In our case, SVC vegetation was noted in TEE. Moreover, CT also demonstrated long filling defect from catheter tip to atrium along SVC.

Therapeutic course of right-side infective endocarditis was around 4-6 weeks. For enterococcus species, for consideration of high multiple drug resistance possibility, antibiotics of mechanism of cell wall inhibitor such as ampicillin and ceftriaxone, or combination with aminoglycoside was suggested.

Conclusion: Fibrin sheath endocarditis should be considered in hemodialysis patient with catheter related infection. It can be found in CT, but TEE is thought to be the most sensitive method.