

中文題目：常規透析的末期腎臟疾病患者感染登革熱病毒後的臨床特徵及預後  
英文題目：Clinical characteristics and outcomes of dengue viral infection in patients with end-stage renal disease on maintenance dialysis

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## **Abstract**

### **Background:**

Dengue virus infection (DENV) has been well known to be associated with acute kidney injury. However, few studies focus on the poor prognosis and high mortality in end-stage renal disease (ESRD) patient with DENV infection. The prevalence of ESRD dialysis patients is high in Taiwan, and there is an outbreak of DENV-2 in 2015. Aim of our study was to evaluate the outcomes of ESRD dialysis patient with DENV in a tertiary hospital in southern Taiwan.

### **Methods:**

From January 1, 2015 to December 31, 2015, a total of 49 ESRD patients on maintenance dialysis who had a definite diagnosis of DENV at Chi-Mei Hospital, a medical center in southern Taiwan, were enrolled for this study. DENV was diagnosed by one of the following positive laboratory results: nonstructural protein 1 antigen test, dengue IgM, or reverse transcriptase-polymerase chain reaction (RT-PCR). Dengue patients with warning signs and severe dengue were defined according to the WHO 2009 criteria. Through a retrospective of medical charts, demographic data, baseline comorbidities, laboratory data, symptoms, signs and complication of dengue of each patient were recorded. Binary logistic regression models were used to analyze the risk factors for development of severe dengue.

### **Results:**

Of 49 ESRD patients with DENV, 44 patients received hemodialysis and the other 5 patients received peritoneal dialysis. Eighteen patients (36.7%) appeared warning signs (table 1). Older patients (> 65 years old) tended to have warning signs (56% vs 16.7%,  $P = 0.007$ ). The in-hospital mortality rate was 8.16%. All patients without warning signs survived. Patients with warning signs were associated with higher rate of ICU admission, respiratory failure, severe dengue (especially severe plasma leakage and severe hemorrhage) and in-hospital mortality (Table 2). Patients with warning signs had a 7-time increase risk for severe dengue than those without [OR (95% CI): 7.06 (1.34-37.21)].

### **Conclusion:**

The in-hospital mortality rate of dengue viral infection was high in patients with ESRD on maintenance dialysis. Appearance of warning signs was a strong predictor for severe dengue.