

中文題目：加護病房嚴重登革熱病患的臨床特徵及預後指標:APTT 延長為獨立預後相關因子
英文題目：**Clinical Characteristics and Outcome Determinants of the Elderly with Severe Dengue in the Intensive Care Units: APTT Prolongation Matters**

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Background: There was a large dengue outbreak in Taiwan in 2015 and the ages of affected individuals were higher than those in other countries. This study is aimed to explore the characteristics and prognostic factors for adults with severe dengue in the intensive care units (ICUs).

Methods: All adults admitted to ICUs with dengue virus infection at a medical center from Jul. 1 2015 to Dec. 31 2015 were included. Dengue virus infection was diagnosed by the presence of serum non-structural protein 1 antigen, IgM antibody of dengue virus, or RNA of dengue virus revealed by real-time reverse transcriptase polymerase chain reaction. Demographic data, clinical features, and lab data were collected and a multivariate Cox model was used to identify the risk factors of in-hospital mortality.

Results: Total 75 patients admitted to ICUs were identified as the cases of laboratory-confirmed dengue virus infection. The mean age was 72.3±9.3 years. The most common comorbidities included hypertension (72.0%), diabetes (43.7%), and chronic kidney disease (22.7%). The in-hospital mortality rate was 41.3%. Among fatal cases, more females, higher disease severity and shorter ICU/hospital stays were noted (Table 1).

Activated partial thromboplastin time (APTT) was longer and serum aspartate transaminase levels were higher in fatal cases than those in surviving ones (Table 2). Cardiac arrest before ICU admission (Hazard ratio [HR]: 6.11, P = 0.001), mechanical ventilation (HR: 4.44, P = 0.047), and prolonged APTT (>48 seconds; HR: 4.34, P = 0.001), and the presence of acute kidney injury on admission (HR: 2.48, P = 0.037), were independently associated with in-hospital mortality in the Cox multivariate analysis (Table 3).

Conclusion: During the dengue outbreak in Tainan, the patients with severe dengue in ICUs were characterized as old age, multiple comorbidities, and a high mortality rate. Organ failure (including cardiac failure, respiratory failure, and renal failure) and coagulation disturbance (prolongation of initial APTT) are independent risk factors for in-hospital mortality.