中文題目: 腎功能和缺血性中風病患 1 月與 1 年死亡率的相關 英文題目: Renal function is associated with 1-month and 1-year mortality in patients with ischemic stroke

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**Background:** Renal dysfunction is a potent risk factor of cardiovascular diseases, including stroke. This study aimed to evaluate the impact of admission estimated glomerular filtration rate (eGFR) levels on short-term (1-month) and long-term (1-year) mortality for patients with acute ischemic stroke.

**Methods:** From the Taiwan Stroke Registry data, we classified ischemic stroke patients identified from April 2006 to December 2015 into 5 groups by eGFR at admission:  $\geq$  90, 60-89, 30-59, 15-29, and <15 mL/min/1.73m<sup>2</sup> or on dialysis. Risks of 1-month mortality and 1-year mortality after ischemic stroke were investigated by the eGFR level.

**Results:** Among 52732 ischemic stroke patients, 1480 patients died within one month. The 1-month mortality rate was over 5-fold greater in patients with eGFR < 15 mL/min/1.73m<sup>2</sup> or dialysis than in patients with eGFR  $\geq$  90 mL/min/1.73m<sup>2</sup> (2.88 versus 0.56 per 1000 person-days). The adjusted hazard ratio (HR) of 1-month mortality increased from 1.31 (95% CI = 1.08-1.59) for patients with eGFR 60-89 mL/min/1.73m<sup>2</sup> to 2.33 (95% CI = 1.80-3.02) for patients with eGFR < 15 mL/min/1.73m<sup>2</sup> or on dialysis. 3226 patients died within one year. The adjusted HR of mortality increased from 1.38 (95% CI = 1.21-1.59) for patients with eGFR 60-89 mL/min/1.73m<sup>2</sup> to 2.60 (95% CI 2.18-3.10) for patients with eGFR < 15 mL/min/1.73m<sup>2</sup> or on dialysis, compared to patients with eGFR  $\geq$  90 mL/min/1.73m<sup>2</sup>. **Conclusions:** After acute ischemic stroke, patients with reduced eGFR are at elevated risks of short-term and long-term deaths in a graded relationship.