

中文題目:高血壓病人中 sacubitril/valsartan 在臨床重大心臟不良事件與腎預後中的腳色

英文題目: The role of sacubitril/valsartan in clinical major adverse cardiac events and renal outcomes in hypertensive patients

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Background: Recent studies second analysis suspected that sacubitril/valsartan can improve patient renal function. However, United Kingdom Heart and Renal Protection-III (UK HARP-III trial) showed no effects of sacubitril/valsartan on kidney protection compared to irbesartan. Therefore, more real-world studies were needed to explore this issues.

Method: This study included all patients with hypertension or who took antihypertensive drug and aged ≥ 20 years between March 1, 2017 to March 1, 2020. We examined 1916 propensity score-matched patients of sacubitril/valsartan users and control groups. Data were retrieved from a tertiary medical center, Taipei Veterans General Hospital. Cox regression models and Kaplan-Meier survival analysis were used to compare outcomes. The following outcomes of interest were examined: all-cause death, major cardiovascular event (MACE), microvascular disease and bleeding tendency. Patients were followed until death or the end of study.

Results: After propensity score-matching, Cox proportional hazards model found sacubitril/valsartan users still had better outcome in the risks of end-stage renal disease (ESRD, defined as estimated glomerular filtration rate (eGFR) declined to 15 ml/min/1.73 m² (hazard ratio[HR], 0.72; 95% confidence interval [CI],0.53–0.99], P value = 0.04),eGFR declined to 30 ml/min/1.73 m² (HR, 0.69; 95% confidence interval [CI],0.47–0.99], P value = 0.04),ischemic stroke (HR, 0.41; 95% confidence interval [CI],0.26–0.65], P value = <0.001), transient ischemic attack (HR, 0.17; 95% confidence interval [CI],0.02–1.26], P value =0.02),systemic embolism (HR, 0.54; 95% confidence interval [CI],0.28–1.02], P value =0.04) compared to the matched control. The survival curve of Kaplan-Meier method also revealed the similar results that sacubitril/valsartan users had better outcome in the risks of ESRD, eGFR decline declined to 30 ml/min/1.73 m² and ischemic stroke (P value<0.001, P value =0.046, P value <0.001 respectively). In addition, survival curve also found sacubitril/valsartan users had increased ejection fractions >10% after sacubitril/valsartan use compared to the matched control (P value =0.04)

Conclusions: Sacubitril/valsartan users were associated with lower risks of MACE and adverse renal outcomes. In addition, sacubitril/valsartan also revealed improvement of ejection fraction in echocardiogram.

Keyword: sacubitril/valsartan 、 major adverse cardiac events 、 renal outcomes 、
ischemic stroke 、 ejection fraction

