

中文題目：常規血液透析患者使用 ACEI 或 ARB 的心血管預後差異

英文題目：Cardiovascular outcomes between ACEIs and ARBs for patients on hemodialysis

作者：馬皓瑋，歐朔銘，唐德成

服務單位：臺北榮民總醫院內科部腎臟科

Background: Angiotensin-converting enzyme inhibitors (ACEIs) or angiotensin receptor blockers (ARBs) were widely used in patients who were on regular hemodialysis (HD) for either controlling blood pressure control or treating underlying diseases. In general, ACEIs are cleared by hemodialysis, whereas ARBs are not. The difference in pharmacokinetics may contribute to different drug efficacy. However, there was still lack of comparison between ACEIs and ARBs as considerations of cardiovascular outcomes.

Method: The records of patients with HD patients on regular dialysis, who received ACEIs or ARBs, were retrieved from a tertiary medical center, Taipei Veterans General Hospital. Baseline characteristics such as demographic data, underlying systemic diseases and laboratory data were included in our analyses. All subjects were followed up from the date of enrollment, until death, loss to follow-up or end of the study. The outcomes of interests included all-cause mortality and major adverse cardiac events.

Results: There were 6275 patients on regular HD who received ACEIs (n=1807) or ARBs (n=4468). HD patients treated with ACEIs had a higher incidence rate of mortality compared with HD patients treated with ARBs (33.1 versus 13.39 per 100 person-years, HR [hazard ratio] 2.33, 95% confidence interval [CI], 2.13-2.56, $P < 0.001$). ACEI users also had greater risks of major adverse cardiac events of ischemic stroke (HR 1.58, 95% CI, 1.31–1.91, $P < 0.001$), myocardial infarction (HR 2.48, 95% CI, 2.08–2.96, $P < 0.001$), heart failure (HR 1.51, 95% CI, 1.37–1.67, $P < 0.001$), hemorrhagic stroke (HR 1.38, 95% CI, 1.03–1.85, $P = 0.031$).

Conclusions: In patients on regular hemodialysis, ARB users was associated with lower risks for mortality, ischemic stroke, myocardial infarction, heart failure and hemorrhagic stroke, compared with ACEI users.