

中文題目:腎移植病患的高尿酸血症和心血管風險

英文題目: Hyperuricemia and cardiovascular risk in Renal Transplant Recipients

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Background: Some literature has shown that post-transplant hyperuricemia was associated with increased risks of renal function decline or graft failure. The Folic Acid for Vascular Outcome Reduction in Transplantation Trial (FAVORIT trial), the only one randomized controlled trial for hyperuricemia and cardiovascular disease in renal transplant recipients, revealed serum uric acid levels were not independently associated with cardiovascular events after a median 3.5-year follow-up. For this result, we thought that the post hoc study was not primarily designed for evaluating the association between hyperuricemia and risks of cardiovascular diseases. Moreover, for studying cardiovascular outcomes, the median follow-up period of 4 years was relatively short, and it is possible that longer follow-up period was needed to reveal the possible association between hyperuricemia and future risks of cardiovascular diseases.

Method: In our study, we retrospectively analyzed 760 adult kidney transplant recipients who visited Taipei Veteran hospital between January 2012 and December 2017. Cox proportional hazard model was used to estimate the association between serum uric acid levels and time to main outcome events adjusting for other covariates/confounding variables

Results: After a median follow-up duration of 7 years, we observe the significant correlation between uric acid and all-cause mortality (serum uric acid 7-7.9 mg/dL, hazard ratio (HR), 2.76 [95% CI, 1.09–6.47]; serum uric acid > 8 mg/dL, hazard ratio(HR), 3.47 [95% CI, 1.59–7.51]), myocardial infarction (serum uric acid > 8 mg/dL, hazard ratio (HR), 3.81 [95% CI, 1.00–14.45] and heart failure (serum uric acid 7-7.9 mg/dL, hazard ratio (HR), 2.55 [95% CI, 1.19–5.12]; Uric acid > 8 mg/dL, hazard ratio(HR), 3.41 [95% CI, 1.78–6.40]). Of note, however, ischemic stroke was not correlated with serum uric acid concentration.

Conclusions: We concluded that post-transplant hyperuricemia was associated with higher risks of cardiovascular diseases, including as all-cause mortality, myocardial infarction, and heart failure, but not in the risk of ischemic stroke in kidney transplant recipients.

Keyword: Kidney transplantation, hyperuricemia, cardiovascular disease, all- cause mortality, myocardial infarction