中文題目：使用 N-acetylcystine 可否可延緩慢性腎病變惡化

英文題目：Protective effect of N-acetylcysteine on the progression to end stage renal disease, necessity of a prospective clinical trial

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Background: This study aimed to evaluate the potential benefits of N-acetylcysteine (NAC) on the risk for chronic kidney disease (CKD) progression to dialysis-requiring end-stage renal disease (ESRD).

Methods:In a population-based cohort study of 145,062 individuals, a total of 123,608 CKD patients who were followed up for 10 years were compared with patients who were prescribed NAC after been diagnosed as CKD (ICD-9-CM). Using propensity score matching, we analyzed the predictors of CKD progression to ESRDd by Cox proportional hazards regression with adjustment for sex, age, and comorbidities and evaluated the effect of NAC using cumulative defined daily dose (cDDD).

Results:NAC use was associated with reduced risk for progression to ESRDd (HR 0.819, 95% CI 0.781-0.965, p = 0.017). Risk reduction was accentuated by an increase in cDDD in patients on NAC compared with non-NAC users (HR was 0.8350, 0.811, and 0.799 for cDDDs 91-180, 180-360, and ≥360, respectively; P for trend =0.018). Risk reduction was apparent in women (P = 0.001); younger age at 18-29 years (P = 0.021)　and 30–39 years (P = 0.033); the presence of hypertension (P = 0.003); the absence of diabetes mellitus (P = 0.042); and the absence of congestive heart failure (P = 0.036).

Conclusions:NAC administration was associated with a lower risk of subsequent ESRDd. The results call for a prospective study.