URIC ACID AND CARDIOVASCULAR DISEASE AND ALL-CAUSE MORTALITY IN THE ELDER-A 10-YEAR POPULATION-BASED COHORT STUDY

尿酸與老人死亡或心血管疾病死亡之相關性，10 年追蹤世代研究

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Background: Elevated serum uric acid level increased the risk of cardiovascular disease (CVD) in general population. This relationship between uric acid and CVD and all-cause mortality, however, is not clear in the elderly Taiwanese.

Objective: We aim to investigate the association between uric acid and CVD and all-cause mortality in the elderly.

Design: A baseline cohort of 1,096 aged 65 and above participants was recruited in Mid-Taiwan in 1997-1998. Among these participants, 588 with uric acid data were selected. Cox proportional hazards regression analyses were used to estimate the relative risks (RRs) of CVD and all-cause mortality for uric acid level during a 10-year follow-up period.

Results: There were 183 deaths during the follow-up period, 55 of which were due to CVD. After adjustment for age, sex, social habit (cigarette smoking, alcohol consumption, betel nut chewing and exercise), chronic disease(hypertension and diabetes, hypercholestemia, hypertriglycemia, chronic kidney disease), BMI and economical status , the RRs (95% CI) of CVD and all-cause mortality among the uric acid quartile IV(8.15-14.10 mg/dL) were 3.00(1.09-8.23) and 1.88(1.06-3.33) respectively, compared with uric acid quartile I(1.20-5.75mg/dL). Despite restricting survival days over 1 year, the result among all cause and CVD mortality still showed significant. Furthermore, increased uric acid level was associated with increased CVD and all-cause mortality which revealed dose-response effects.

Conclusions: Elevated serum uric acid level was an independent predictor for CVD and all-cause mortality in the elderly Taiwanese. Regular medical intervention for elderly Taiwanese with high serum uric acid is necessary.