

요산은 정상적인 신기능을 가진 한국인에서 2년간 신기능악화의 독립적인 위험인자이다

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Uric Acid is a 2-year's Independent Risk Factor for Impairment of Renal Function in Korean Population who has Normal Renal Function

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Background: Uric acid may be a true mediator of renal disease. However, epidemiological evidence for the significance of serum uric acid levels on the risk of impaired renal function is scarce in a setting of community-based screening.

Methods: 1,019 subjects who underwent health screening in Pusan National University Hospital were followed-up over 2 years. Clinical data including serum uric acid, sex, age, blood/urine chemistry, blood pressure and estimated glomerular filtration rate (eGFR) was tracked at first visit and end point of follow-up (2 years after first visit). End point of progression of renal dysfunction was defined as $\geq 25\%$ decline in eGFR. Multiple logistic regression analyses were performed to identify predictive factor of declining eGFR.

Results: Of those 1019 patients, 55 patients (5.4%) reached end point. In univariate analysis, body mass index (BMI), systolic/diastolic blood pressure, serum high density lipoprotein (HDL), serum triglyceride, serum uric acid, serum glucose and presence of diabetes showed statistically significant differences between the patients who met the end point and who do not. Multiple logistic regression revealed the serum uric acid (Odds ratio 1.59 [95% CI 1.26–1.99]; $p < 0.001$) and age (Odds ratio 1.07 [95% CI 1.03–1.10]; $p < 0.001$) were predictive factors of impaired renal function.

Conclusion: Serum uric acid was a 2-year's independent risk factor for progression of renal dysfunction in this sample of the Korean population. Strategies to control serum uric acid level within the normal range may prevent the deterioration of renal function.

Key Words: 요산, 신기능 저하, 사구체 여과율

Uric acid, Renal dysfunction, Glomerular filtration rate