

## 고요산혈증을 동반한 만성신질환에서 목표지향적 요산강하치료의 예방 효과

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### The Value of Goal-directed Uric Acid Lowering Therapy in Slowing the Progression of Chronic Kidney Disease in Hyperuricemic Patients

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**Objective:** This study aimed to determine whether a urate lowering therapy (ULT) could delay the progression of chronic kidney disease (CKD) which is accompanied by hyperuricemia, and to evaluate the value of goal-directed ULT.

**Methods:** We performed a retrospective review of stage 3 CKD patients concurrent with hyperuricemia who were treated and followed from September 2005 to July 2014. A total of 158 eligible patients were identified and 65 of them were treated with ULT in addition to conventional CKD treatment. We divided the patients according to the use of ULT, and compared a change of estimated GFR (eGFR). The progression of CKD was defined as a decline of eGFR greater than 30%, eGFR <15 mL/min/1.73m<sup>2</sup> or initiation of dialysis at the time of last follow-up compared with the initial baseline value. Logistic regression analysis was performed to determine the risk factors related with CKD progression.

**Results:** After an average of 1050±759 days of follow-up, the ULT group showed a better outcome compared to non-ULT group in terms of a change of eGFR (-1.19±12.07 vs. -7.37±11.17 mL/min/1.73m<sup>2</sup>, p=0.001) and the proportion of CKD progression (12.3% vs. 27.9%, p=0.019). CKD patients with gout in whom goal-directed ULT was applied (serum uric acid < 6mg/dL) showed a better clinical outcome compared to non-gout CKD patients in whom the initial ULT dose was maintained without any change. The level of mean serum uric acid was significantly associated with the risk of CKD progression (P for trend=0.04) in the logistic regression analysis. Mean serum uric acid level (<7 mg/dl) reduced the risk of CKD progression significantly by 69.4%.

**Conclusions:** The ULT significantly delayed the renal disease progression in CKD patients with hyperuricemia. Additionally, goal-directed ULT in CKD patients with gout seems to be related to a better outcome compared to continuing the initial ULT prescription.

**Key Words:** 고요산혈증, 만성신질환  
Hyperuricemia, Chronic kidney disease