

# 22<sup>nd</sup> European Nephrology Conference

October 15-16, 2018 | Warsaw, Poland

## Urate-lowering therapy ameliorates kidney function in type 2 diabetes patients with hyperuricemia

**Naohiko Ueno**

Ueno Internal Medicine and Diabetes Clinic, Japan

**Objective:** Hyperuricemia often causes kidney dysfunction which increases serum urate, forming a vicious cycle in the kidney. In this study, urate-lowering therapy was demonstrated in type 2 diabetes patients with hyperuricemia to evaluate the effect on diabetic nephropathy.

**Methods:** Type 2 diabetes patients with hyperuricemia (n=34) were treated by urate-lowering drugs. Serum urate levels, estimated glomerular filtration rate (eGFR), blood pressure, HbA1c, and urinary albumin-excretion rate (UAER) were measured for 52 weeks. The parameters at the end point when serum urate decreased to below 6.0 mg/dL and at 52 weeks were compared to the initial levels at week 0.

**Results:** Serum urate level decreased to the end point in all patients and was maintained at under 6.0 mg/dL throughout the observation period. eGFR significantly increased at the end point and also at 52 weeks. Overall UAER did not change after 52 weeks; however, the treatment decreased UAER significantly in patients with no microalbuminuria. There was a negative relationship between the change of serum urate levels and the change of eGFR, and a negative relationship between the baseline UAER and the change of UAER when patients with macroalbuminuria were excluded. There were no changes in HbA1c levels and blood pressure before and after the treatment.

**Conclusion:** There were significant improvements in kidney function by lowering serum urate levels to under 6.0 mg/dL and the effect was maintained for at least 52 weeks. This treatment may be one strategy to slow the progression of nephropathy in type 2 diabetic patients with hyperuricemia.

### Biography

Naohiko Ueno is the Director of Ueno Internal Medicine and Diabetes Clinic, and a Visiting Lecturer at Kagoshima University Graduate School of Medical. He specializes in Diabetes and certified by the Japan Diabetes Society, and also specializes in Internal Medicine certified by the Japanese Society of Internal Medicine. He received his PhD in 2000 at Kobe University Graduate School of Medicine. He studied as a Postdoctoral fellow at the Department of Neuroscience of the University of Florida, USA. His current field of interest is diabetes treatment and body weight regulation. He has many publications in medical journals including *Diabetes Care*, *Diabetologia*, *Endocrinology and Gastroenterology*.

uenouf3@yahoo.co.jp