

**PP31****Increased risk for chronic kidney disease in kidney stone formers: a follow-up study in Japanese men**R. Ando¹, T. Nagaya², S. Suzuki², H. Takahashi³, M. Kawai³, Y. Itoh¹, T. Kobayashi¹, A. Okada¹, T. Yasui¹, K. Tozawa¹, K. Kohri¹¹ Department of Nephro-urology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan² Department of Public Health, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan³ Gifu Prefectural Center for Health Check and Health Promotion, Gifu, Japan

Objective: To assess the influence of kidney stones on the risk for chronic kidney disease and the interaction between kidney stones and conventional risk factors regarding the risk of chronic kidney disease in Japanese men.

Materials and Methods: A follow-up study from April 1995 to March 2001 was performed in 11,402 Japanese men aged 30–69 years who voluntarily received medical examinations and were free of chronic kidney disease at baseline. The HR and 95% CI for incident chronic kidney disease according to kidney stones and conventional risk factors including overweight/obesity, hypertension, diabetes mellitus, gout/hyperuricemia and dyslipidemia were calculated using Cox proportional hazards regression models. Interactions between kidney stones and conventional risk factors for chronic kidney disease were also analyzed.

Results: During a mean follow-up period of 3.8 years, 2,301 (20.2%) men developed incident chronic kidney disease. After multivariable adjustment including lifestyles, kidney stones were associated with an increased risk of incident chronic kidney disease (HR, 1.16; 95%CI, 1.03 to 1.32). Gout/hyperuricemia posed the highest risk for CKD onset (HR, 1.47; 95%CI, 1.33 to 1.63) in the present study. Influences of kidney stones and overweight/obesity on the risk of chronic kidney disease overlapped (age-adjusted *P* for interaction = 0.007). In contrast, there were no significant interactions between kidney stones and hypertension, diabetes mellitus, gout/hyperuricemia or dyslipidemia related to the risk of chronic kidney disease.

Conclusion: Kidney stones were associated with increased risk of incident chronic kidney disease in Japanese men. A health intervention program targeting kidney stone formers and designed to control co-morbidities could decrease the incidence of chronic kidney disease.