

Coffee Intake and Chronic Kidney Disease



To the Editor:

I read the paper by Jhee et al.¹ with interest. The authors conducted a prospective study to investigate the effect of coffee intake on the development of chronic kidney disease in the general population. Coffee consumption was categorized into five groups, and the primary outcome was incident chronic kidney disease defined as an estimated glomerular filtration rate (eGFR) <60 mL/min/1.73 m². Adjusted hazard ratios (95% CIs) of coffee consumers with 1 cup/day and ≥2 cups/day against non-drinkers for chronic kidney disease development were 0.76 (0.63-0.92) and 0.80 (0.65-0.98), respectively. The authors concluded that daily coffee intake was associated with decreased risk of the development of chronic kidney disease. I have two concerns with this study.

First, the authors could not recognize a dose-response relationship between frequencies of coffee intake and the risk of chronic kidney disease. Although daily coffee intake was inversely associated with the risk of chronic kidney disease, coffee consumers with <1 cup/week also had a preventive effect on chronic kidney disease. I think that the recommendation of daily coffee intake would be derived from results by propensity score matching procedure. As there is a report that heavy coffee consumers, who drink ≥3 cups/day, have a preventive effect on incident hypertension,² and there is a meta-analysis of recognizing dose-response relationship.³ Taken together, further studies on the risk assessment for chronic kidney disease with the amount of coffee intake are needed.

Second, the authors adjusted smoking status for the analysis, although there was a lack of discussion concerning the effect of smoking on chronic kidney disease. Ishizaka

et al.⁴ investigated the association between smoking and eGFR by considering albuminuria. Current smoking was inversely associated with chronic kidney disease, which was dependent on the number of cigarettes smoked per day. Current smoking of <40 cigarettes/day was also a risk of albuminuria. Yoon et al.⁵ evaluated the effects of smoking on renal function and proteinuria. They recognized that smoking was significantly associated with a higher eGFR, and current smoking had a risk of proteinuria. Simultaneous consideration of smoking and albuminuria (proteinuria) seems important for the assessment of chronic kidney disease.

Tomoyuki Kawada
Department of Hygiene and Public
Health, Nippon Medical School
Tokyo, Japan

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I confirm that I am the sole author and as such am fully responsible for the content of this letter.

Corresponding author: Tomoyuki Kawada, M.D. Department of Hygiene and Public Health, Nippon Medical School, 1-1-5 Sendagi, Bunkyo-Ku, Tokyo 113-8602, Japan Tel: 81-3-3822-2131, Fax: 81-3-5685-3065

E-mail address: kawada@nms.ac.jp