

Letter to the Editor

Risk assessment of bladder cancer: lifestyle and nutritional contribution

I read with great interest the article by Kwan et al. “Lifestyle and nutritional modifiable factors in the prevention and treatment of bladder cancer” [1]. The authors reviewed the association between modifiable lifestyle factors and bladder cancers with special reference to diet, physical activity and smoking. As the effect of smoking on bladder cancer incidence is also apparent by a systematic review with a meta-analysis [2], I have some concerns on nutritional factors, especially coffee/tea consumption and bladder cancer.

Hashemian et al. evaluated the effect of coffee and tea drinking on the risk of the urinary tract cancer incidence in male smokers, and adjusted hazard ratio (95% confidence interval [CI]) of tea consumption ≥ 1 against 0 cup/day for bladder cancer was 0.77 (0.58–1.00) [3]. In contrast, there was no significant association between coffee consumption and bladder cancer. Turati et al. also conducted a hospital-based case-control study to analyze the relation between coffee, tea, and bladder cancer risk [4]. Adjusted odds ratios (95% confidence intervals) of current coffee drinkers and lifetime drinkers taking ≥ 4 cups/day for bladder cancer were 1.27 (0.84–1.94) and 1.69 (1.05–2.72), respectively. In contrast, there was no significant association between tea consumption and bladder cancer. As Kwan et al. also cited a review reference of inconsistent association between coffee consumption and bladder cancer [5], and I suppose that the adverse effect of smoking on bladder cancer should be adequately controlled for the risk assessment. In addition, interventional study is indispensable for verifying the causal association.

Concerning to sex difference, Zeegers et al. [6] conducted a large cohort study to evaluate the effect of coffee/

tea consumption on bladder cancer incidence, and that there was a positive association between in men and an inverse association in women. In contrast, tea consumption was inversely associated with bladder cancer in men and women. Anyway, further comprehensive studies are needed to verify the net association between coffee/tea consumption and bladder cancer by considering sex difference and smoking habit.

Tomoyuki Kawada, M.D.*

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

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

*Corresponding author: Tel: +81-3-3822-2131,
fax: +81-3-5685-3065

References

- [1] Kwan ML, Garren B, Nielsen ME, Tang L. Lifestyle and nutritional modifiable factors in the prevention and treatment of bladder cancer. *Urol Oncol* 2019;37:380–6.
- [2] Cumberbatch MGK, Jubber I, Black PC, Esperto F, Figueroa JD, Kamat AM, et al. Epidemiology of bladder cancer: a systematic review and contemporary update of risk factors in 2018. *Eur Urol* 2018;74:784–95.
- [3] Hashemian M, Sinha R, Murphy G, Weinstein SJ, Liao LM, Freedman ND, et al. Coffee and tea drinking and risk of cancer of the urinary tract in male smokers. *Ann Epidemiol* 2019. <https://doi.org/10.1016/j.annepidem.2019.03.014>.
- [4] Turati F, Bosetti C, Polesel J, Zucchetto A, Serraino D, Montella M, et al. Coffee, tea, cola, and bladder cancer risk: dose and time relationships. *Urology* 2015;86:1179–84.
- [5] Wierzejska R. Coffee consumption vs. cancer risk—a review of scientific data. *Rocz Panstw Zakl Hig* 2015;66:293–8.
- [6] Zeegers MP, Dorant E, Goldbohm RA, van den Brandt PA. Are coffee, tea, and total fluid consumption associated with bladder cancer risk? Results from the Netherlands Cohort Study. *Cancer Causes Control* 2001;12:231–8.