Cruciferous vegetables consumption and the risk of female lung cancer: a prospective study and a meta-analysis.

Wu QJ, Xie L, Zheng W, Vogtmann E, Li HL, Yang G, Ji BT, Gao YT, Shu XO, Xiang YB.
Department of Epidemiology, School of Public Health, Fudan University, Shanghai.

Abstract
Background Epidemiological studies evaluating the association between cruciferous vegetables (CVs) intake and female lung cancer risk have produced inconsistent results. Patients and methods This study followed 74,914 Chinese women aged 40-70 years who participated in the Shanghai Women's Health Study. CV intake was assessed through a validated food-frequency questionnaire (FFQ) at baseline and reassessed during follow-up. Hazard ratios (HRs) and 95% confidence interval (CIs) were estimated by using Cox proportional hazards models. Furthermore, we carried out a meta-analysis of all observational studies until December 2011. Results After excluding the first 2 years of follow-up, 417 women developed lung cancer over a mean of 11.1 years of follow-up. An inverse association of borderline statistical significance was observed between CV consumption and female lung cancer risk, with HR for the highest compared with the lowest quartiles of 0.73 (95% CI 0.54-1.00, P trend = 0.1607). The association was strengthened in analyses restricting to never smokers, with the corresponding HR of 0.59 (95% CI 0.40-0.87, P trend = 0.0510). The finding of an inverse association between CV intake and lung cancer risk in women was supported by our meta-analysis of 10 included studies. Conclusions Our study suggests that CV consumption may reduce the risk of lung cancer in women, particularly among never smokers.

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