environmental exposure to bisphenol A (BPA). This study aims to examine the association between nightshift work and prostate cancer risk among Hong Kong Chinese men after taking into account more environmental exposures.

Methods We consecutively recruited 431 incident prostate cancer cases and age frequency matched 402 controls who had complete information on nightshift work. After receiving written consents, trained researchers interviewed participants using a standard questionnaire to obtain information on socio-demographics, smoking, dietary habits, habits of using plastic food containers, family cancer history, and occupational history and nightshift work. A newly developed novel cumulative BPA exposure index (CBPAI) was used to estimate chronic BPA exposure. Odds ratio and 95% confidence interval (95% CI) was performed using multiple logistic regression analysis.

Results The mean age of prostate cancer cases was comparable to the controls (69.4 vs 68.2 years). Compared with the controls (39.1%), more cases were less educated with a higher proportion of ‘primary school or below’ (41.1%). More cases than controls were the nightshift workers (13.5% vs 7.5%). After adjustment of age and socioeconomic characteristics, the OR of nightshift work to prostate cancer was 1.87 (95% CI: 1.16 to 3.01), and the OR retained statistical significance (OR=1.76, 95% CI: 1.07 to 2.89) after environmental exposures mainly from dietary sources were further adjusted.

Conclusions Results from this study provided supportive evidence that there might be a link between nightshift work and prostate cancer. The main merit of this study is that more environmental risk factors were considered in quantifying the association.

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