P167 LUNG CANCER AND OCCUPATIONAL EXPOSURES IN HONG KONG CHINESE MEN

Lap Ah Tse,[1] Ignatius Yu,[1] Hong Qiu,[1] Joseph Siu Kai Au,[2] Xiaorong Wang[1] *[1]Chinese University of Hong Kong, Shatin, Hong Kong; [2]Queen Elizabeth Hospital, Kowloon, Hong Kong*

10.1136/oemed-2011-100382.381

Objectives We aimed to quantify lung cancer risk associated with occupational exposures in Hong Kong Chinese men.
Methods A population-based case-referent study was carried out during 2004–6. Full occupational histories and other information of 1208 male lung cancer incident cases and 1069 age-matched male community referents were obtained. Specific or group of agents of confirmed or suspected occupational carcinogens were collected according to a standardised checklist.
Results After adjustment for smoking and other potential confounding factors, a significantly increased OR of lung cancer was observed for workers employed in the 'construction' industry (1.51, 95% CI: 1.12 to 2.04; ISIC code: 5) and the occupation of 'bricklayers, carpenters and other construction workers' (1.63, 1.20 to 2.22; ISCO code: 9–5). Significantly elevated ORs were associated with exposures to silica dust (2.06, 1.40 to 3.04), welding fumes (1.73, 1.15 to 2.63), spray painting (1.57, 1.00 to 2.47), diesel exhaust (2.16, 1.26 to 3.70), and man-made mineral fibres (8.56, 1.86 to 39.39); while a significantly reduced OR (0.56, 0.40 to 0.78) was linked to cotton dust. Because both the cases and community referents were a representative sample of the general population, we estimated that 4.34% (95% CI: 1.06 to 8.47%) of lung cancer in Hong Kong male population was attributable to the employment of construction industry (prevalence in the referents: 8.9%) and the population attributable fraction was 11.73% (95% CI: 6.66 to 17.71%) for exposures to any of the 5 identified occupational lung carcinogens (prevalence: 18%).
Conclusions Our study demonstrates that previous exposures to occupational carcinogens are important lung cancer determinants for Hong Kong Chinese men.