P21 **CANCER MORTALITY OF CHRYSOTILE ASBESTOS WORKER COHORT IN CHINA**

Sihao Lin,[1] Xiaorong Wang,[1] Ignatius Yu,[1] Hong Qiu,[1] Eiji Yano[2] *[1]Chinese University of Hong Kong, Hong Kong, China; [2]Teikyo University, Tokyo, Japan*

Objectives The association between lung cancer and chrysotile exposure remains an interesting and debated topic. This study is to analyse cancer mortality and to evaluate its association with asbestos exposure.

Methods A total of 577 workers from a chrysotile asbestos textile plant were followed from 1972 to 2008. Occupational history and exposure information was obtained; vital status and causes of death were ascertained from death registry and local hospitals. Workers were classified into 3 exposure levels (high, medium and low) according to historical exposure assessments by job titles and workshops. Standard Mortality Ratio (SMR) was calculated as ratios of observed deaths in the

cohort to expected deaths based on Chinese national male-specific mortality adjusted for 5-year age group and calendar period.

Results We observed 96 deaths from all cancers out of 259 total deaths, with SMR of 2.09 (95% CI: 1.71 to 2.55); 53 from lung cancer, with SMR of 4.08 (3.12 to 5.33). In addition, there were 2 mesothelioma deaths with SMR of 33.33 (9.14 to 121.55). SMRs for all cancers and lung cancer increased obviously with higher exposure level. SMR for lung cancer also increased with exposure years and younger age at first exposure. A similar trend was also seen in SMRs for all cancers. Smoking was related to all cancers and lung cancer, but the highest SMR (7.80, 95% CI: 5.20 to 11.70) was observed in smokers with high level of asbestos exposure.

Conclusions Increased cancer mortality was related to asbestos exposure level, exposure duration, and age at first exposure.