

Cancer Mortality and Asbestosis Among Workers in an Asbestos Plant in Chongqing, China

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Objective To investigate whether asbestosis is a risk factor for mortality of lung cancer. **Methods** A fixed cohort study was established in an asbestos plant in Chongqing, China, and followed up for 30 years from the beginning of 1972. Basic personal information on life state, cause of death, and diagnosis of asbestosis was collected. Multiple logistic regressions were applied to analyze risk factors. **Results** During the 30-year follow-up, 584 male workers constituting a total of 14 664 person-years were monitored and data were analyzed. Among them, 203 (34.8%) died and the mortality rate was 13.8 per 1000 person-years, cancer accounting for 37.4%. Excess risks were observed for lung cancer (OR=3.72) and nonmalignant respiratory diseases (OR=2.73) among workers with asbestosis. High-exposure level was another risk factor for lung cancer (OR=3.20). Workers with category II of asbestosis demonstrated a higher OR of both lung cancer and nonmalignant respiratory diseases than those with category I of asbestosis. **Conclusion** High asbestos exposure level and asbestosis were the risk factors for death of lung cancer and nonmalignant respiratory diseases. Asbestosis is an independent risk factor for lung cancer among Chinese workers exposed to chrysotile, the risk increases with the increasing profusion of opacities of lung.

Key words: Asbestosis; Cohort study; Lung cancer; Chrysotile

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