

# Tuberculosis increases the risk of lung cancer mortality in the elderly

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Tuberculosis independently predicts death from lung cancer in the elderly, according to a new study from researchers in Hong Kong.

"There is a high incidence of both tuberculosis and lung cancer among the elderly in Hong Kong," said lead author Chi Chiu Leung, MBBS, consultant chest physician in the Tuberculosis and Chest Service of the Department of Health of Hong Kong. "In our prospective follow-up study of a cohort of 61,239 subjects aged 65 years or older, we found that active tuberculosis was an [independent predictor](#) of lung cancer death after adjustment for a number of demographic and health-related factors."

The results will be presented at the ATS 2012 International Conference in San Francisco.

Study subjects were enrolled from 18 Elderly Health Centers of the Department of Health in Hong Kong between 2000 and 2003 and retrospectively cross-matched with 1993-2003 data from the tuberculosis notification registry. The cohort was followed prospectively through 2011 with causes of death ascertained through the territory-wide death registry.

Of 61,239 study subjects, 516 had active tuberculosis prior to study enrollment. During follow-up, there were 1,344 deaths from lung cancer, 910 deaths from other tobacco-related malignancies, and 2,003 deaths from non-tobacco-related malignancies.

After adjustment for gender, age, language spoken, [education level](#), marital status, housing situation, public means-tested financial assistance status, ever-smoking status, [passive smoking](#), alcohol use, [body mass index](#), [chronic obstructive pulmonary disease](#) and/or asthma and family history of [malignancy](#), having active tuberculosis before study enrollment was significantly associated with death from lung cancer but not with death from the other two categories of malignancies.

"The association between tuberculosis and lung cancer death in elderly patients in our study likely reflects the effect of tuberculosis on the occurrence of this cancer," said Dr. Leung. "Lung cancer mortality is increasing rapidly with the aging population in China and other Asian Countries. Our results call for greater attention to the possibility of lung cancer in patients with a history of tuberculosis and increased public health initiatives aimed at tobacco and tuberculosis control."

"With accumulating knowledge on risk factors other than cigarette smoking, attempts should be made to build a more comprehensive predictive model for [lung cancer](#) to target future screening activities," Dr. Leung concluded. "Further delineation of the underlying mechanisms may also help to identify potential drug targets for prevention and/or treatment of this important deadly disease."

**More information:** "Tuberculosis Increases The Risk Of Lung Cancer Death In The Elderly" (Session B20, Monday, May 21, Room 3005-3007, Moscone Center; Abstract 34214)

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