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Contact: Renée McGaw
renee.mcgaw@ucdenver.edu
303-724-5796
[International Association for the Study of Lung Cancer](http://www.iaslc.org)

Study finds evidence of increased lung cancer risk among tuberculosis patients

China Medical University study shows higher incidence of cancer in those who have had tuberculosis

Denver, Colorado (1 January 2011) -- Although a clear association of tuberculosis with lung cancer remains to be established, a new study published in the January issue of the *Journal of Thoracic Oncology* provides compelling evidence of increased lung cancer risk among people with tuberculosis.

Researchers at China Medical University and Hospital in Taiwan randomly selected 1 million patients covered under the country's National Health Insurance (NHI) program. All patients aged 20 years and older with a new diagnosis of tuberculosis between 1998 and 2000 were identified as the exposed cohort and all people without tuberculosis history were the non-exposed cohort. Patients with any cancer diagnosis were excluded to ensure that all participants were cancer-free at the start of both cohorts. Overall, 716,872 adults were eligible for the analysis - 4,480 in the tuberculosis cohort and 712,392 in the non-tuberculosis cohort.

Both groups were followed from 2001 through 2007. Results showed that patients with tuberculosis were 10.9 times more likely than non-tuberculosis patients to develop lung cancer (26.3 versus 2.41 per 10,000 person-years). Mortality was also much higher in the patients with tuberculosis than in the non-tuberculosis patients (51.1 versus 8.2 per 10,000 person-years).

"Tuberculosis is a very common chronic disease worldwide; people in the developing and undeveloped areas suffer with it mostly," said Dr. Chih-Yi Chen, one of the researchers. "It is well known that lung cancer is causally associated with smoking. Less attention has been focused on whether people with tuberculosis are also at higher risk of developing lung cancer. With the universal health insurance claims data of Taiwan, we identified 4,480 patients with tuberculosis from a group of 716,872 people and followed them for eight years or longer. The incidence of lung cancer in these tuberculosis patients was 11 times greater than people without tuberculosis. The risk of lung cancer may increase further to almost 16 times greater if patients with tuberculosis also suffer from chronic obstructive pulmonary disease. This study suggests that it is also important to watch out for lung cancer prevention in the campaign against tuberculosis."

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About the *Journal of Thoracic Oncology*:

The *Journal of Thoracic Oncology* (JTO) is the official monthly journal of the International Association for the Study of Lung Cancer (IASLC). It is a prized resource for medical specialists and scientists who focus on the detection, prevention, diagnosis and treatment of lung cancer. It emphasizes a multidisciplinary approach, including original research (clinical trials and translational or basic research), reviews and opinion pieces.

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