

中文題目：台灣塵肺症病人有較高結核病風險

英文題目：Increased Risk of Tuberculosis in Pneumoconiosis Patients in Taiwan

作者：蔡明儒<sup>1</sup>，鄭至宏<sup>1</sup>，潘若卉<sup>2</sup>，洪仁宇<sup>1</sup>

服務單位：高雄醫學大學附設中和紀念醫院<sup>1</sup>內科部胸腔內科，<sup>2</sup>職業及環境醫學科

**Background:** Patients with pneumoconiosis have been considered to have higher risk of mycobacterial infection than the general population. However, no local epidemiological studies have been done in Taiwan. We therefore conducted this nationwide population-based study to investigate the association between tuberculosis and pneumoconiosis.

**Method:** From the dataset of 1 million subjects randomly sampled from individuals enrolled in the National Health Insurance system before the end of 2010, we enrolled adult patients with a diagnosis of pneumoconiosis. Patients with any tuberculosis diagnosis prior to pneumoconiosis diagnosis were excluded. The date of first pneumoconiosis diagnosis was defined as the index date for each patient. Each patient was matched to 10 randomly-selected, age- and sex-matched control subjects without pneumoconiosis. The control subjects were assigned index dates as their corresponding patients, and were ensured having no tuberculosis diagnosis prior to their index dates. The tuberculosis incidences were compared with Chi-square test. The effect of pneumoconiosis on incident tuberculosis was assessed with Cox regression.

**Result:** A total of 1,919 pneumoconiosis patients and 19,190 control subjects were identified for further analysis. The incidence of tuberculosis was significantly higher in the pneumoconiosis patients as compared with the control subjects (10.0% vs. 3.8%,  $p < 0.0001$ ). In multivariable Cox regression analysis, pneumoconiosis remained a significant risk factor for incident tuberculosis after adjusting for age and sex (hazard ratio = 2.86 [95% confidence interval: 2.42 – 3.39],  $p < 0.0001$ ).

**Conclusion:** Our study confirmed that pneumoconiosis patients in Taiwan have significantly higher risk of tuberculosis. Therefore, these patients deserve special attention with regard to tuberculous infection.