

A decrease in lung cancer mortality following the introduction of low-dose chest CT screening in Hitachi, Japan

Research from the United States has shown that CT screening prevents lung cancer death among high risk individuals. However, it remains unclear whether wide implementation of low-dose CT screening for lung cancer can decrease mortality in the community. Among residents in Hitachi, where nearly 40% of inhabitants aged 50–69 years were estimated to have participated in the screening at least once from 1998 through 2009, the trend of lung cancer mortality was described in relation to the timing of implementation of the CT screening.

Cancer mortality data were obtained from regional cancer registry and standardized mortality ratio (SMR) of lung cancer was calculated for each 5-year period during 1995–2009. In both men and women aged 60 years or older, age-specific lung cancer mortality rates were generally lower during 2005–2009 as compared with those during 1995–2004. For combined men and women aged 50–79 years, SMR was nearly unity prior to or during introductory phase of CT screening and during early period of implementation; however, it was significantly decreased during 2005–2009, well after the implementation of CT screening, with SMR (95% confidence interval) being 0.76 (0.67–0.86). Results suggest that wide implementation of low-dose chest CT screening may decrease lung cancer mortality in the community 4–8 years after introduction of the screening.

Source: Lung Cancer (Online), 16 October 2012

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