



The associations of interstitial lung abnormalities with cancer diagnoses and mortality

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Interstitial lung abnormalities are associated with an increased hazard of lung cancer diagnosis and lung cancer mortality in a general population cohort. Cancers other than lung cancer were not associated with interstitial lung abnormalities. <https://bit.ly/3hWdc6m>

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ABSTRACT An increased incidence of lung cancer is well known among patients with idiopathic pulmonary fibrosis. It is not known whether interstitial lung abnormalities, *i.e.* early fibrotic changes of the lung, are a risk factor for lung cancer in the general population.

The study's objective was to assess whether interstitial lung abnormalities were associated with diagnoses of, and mortality from, lung cancer and other cancers. Data from the AGES-Reykjavik study, a cohort of 5764 older Icelandic adults, were used. Outcome data were ascertained from electronic medical records. Gray's tests, Cox proportional hazards models and proportional subdistribution hazards models were used to analyse associations of interstitial lung abnormalities with lung cancer diagnoses and lung cancer mortality as well as diagnoses and mortality from all cancers.

There was a greater cumulative incidence of lung cancer diagnoses ($p < 0.001$) and lung cancer mortality ($p < 0.001$) in participants with interstitial lung abnormalities than in others. Interstitial lung abnormalities were associated with an increased hazard of lung cancer diagnosis (hazard ratio 2.77) and lung cancer mortality (hazard ratio 2.89) in adjusted Cox models. Associations of interstitial lung abnormalities with all cancers were found in models including lung cancers but not in models excluding lung cancers.

People with interstitial lung abnormalities are at increased risk of lung cancer and lung cancer mortality, but not of other cancers. This implies that an association between fibrotic and neoplastic diseases of the lung exists from the early stages of lung fibrosis and suggests that interstitial lung abnormalities could be considered as a risk factor in lung cancer screening efforts.