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LUNG ALERT

CT screening for lung cancer not shown to reduce mortality

▲ Bach PB, Jett JR, Pastorino U. Computed tomography screening and lung cancer outcomes. *JAMA* 2007;**297**:953–61.

Screening tests for lung cancer rely on the notion that they can identify early tumours that would progress to cause significant disease. Previous screening trials using chest x rays (CXR) found that while they identified more early-stage cancers, just as many people were diagnosed with advanced cancers and there was no significant reduction in mortality. There is now renewed interest in screening using CT, as it is more sensitive than CXR and sputum cytology.

The aim of the study was to produce some preliminary estimates of the impact of CT screening on lung cancer cases and mortality. Asymptomatic current or former smokers aged between 50 and 80 were studied across three sites and their frequency of lung cancer events compared with a previously validated model. Patients had annual scans and were followed up for a median of 3.9 years. Of 3246 patients screened, 144 cases of lung cancer were diagnosed. Screened patients were three times more likely to be diagnosed with lung cancer (RR 3.2) and ten times more likely to undergo surgical resection (RR 10.0). There was, however, no significant reduction in the number of diagnoses of advanced lung cancer (42 vs 33.4 predicted) or mortality (38 vs 38.8 predicted).

The authors suggest it is likely that, as in previous trials of screening with CXR, CT scanning picks up many small tumours which may not ultimately become clinically significant. Although the study is only preliminary, the findings do raise concerns about implementing CT screening on a large scale. The main limitation of this study is that there was no comparator “non-intervention” group, but only a prediction model. More conclusive data from randomised controlled trials is needed to assess potential benefits and risks.

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