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LUNG ALERT

CT screening helps to detect resectable lung cancers and may improve survival

▲ Henschke CI, Yankelevitz DF, Libby DM, *et al*. Survival of patients with stage I lung cancer detected on ct screening the international early lung cancer action programme investigators. *N Engl J Med* 2006;**355**:1763–71.

This international uncontrolled prospective study screened 31 567 asymptomatic individuals using low dose CT scan between 1993 and 2005. Positive tests were defined on baseline screening as the identification of a least one solid or partly solid non-calcified pulmonary nodule >5 mm in diameter, at least one non-solid non-calcified pulmonary nodule >8 mm in diameter or a solid endobronchial node; and on annual screening as any new non-calcified nodule. Patients with suspicious lesions underwent investigation with positron emission tomography (PET), biopsy or repeat CT scan. The study identified 484 participants with lung cancer, 412 (85%) of whom had clinical stage I disease with an estimated 10 year survival rate of 88%. Survival rates increased to 92% in the 302 individuals with stage I cancer who underwent surgical resection within 1 month of diagnosis.

The study is limited by lack of a control group and disease specific mortality as its endpoint, resulting in lead time, length time and over diagnosis bias. The majority of lung cancers detected were found on baseline screening (405) compared with annual CT scan (75) and survival rates are statistically projected rather than true values. CT scan as a primary screening tool is non-invasive with a relative low morbidity, however it yields no information regarding the biological behaviour of the nodule and confirmatory diagnosis requires further invasive procedures. CT scan-based screening programmes may prove difficult to implement within the current National Health Service system in the UK, although this American study demonstrates that it can detect curable cancers.

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