

New Method Detects Early Lung Cancer Combined Lung Cancer Screening Approach May Prevent Deaths

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Aug. 21, 2003 -- A new lung cancer screening method that combines two types of imaging techniques may help detect early lung cancers in people at high risk for the deadly disease, such as heavy smokers.

A new study shows the method, which combines spiral computed tomography (CT) and positron emission tomography (PET), can reliably detect early lung cancers.

Researchers say catching lung cancers early is important because it may reduce the risk of dying from the disease.

Since lung cancer is often diagnosed in advanced stages, close to 90% of all people diagnosed with lung cancer die within five years.

But the likelihood of surviving lung cancer rises to more than 80% when the cancer is detected and removed while it's still small -- less than about two centimeters.

CT scans of the chest have been shown to effectively detect early lung cancers in high-risk individuals, but when used alone the scans also detect a high number of benign (noncancerous growths), which makes them inappropriate for widespread lung cancer screening.

2 Scans Are Better Than 1

In a study published in this week's issue of *The Lancet*, researcher Ugo Pastorino of the National Institute of Cancer in Milan, Italy, and colleagues tested 1,000 smokers over age 50 who were at high risk of developing lung cancer -- they smoked at least 26 cigarettes a day for an average of 37 years.

Each of the volunteers underwent a CT scan with or without PET once a year for five years. After two years of lung cancer screening, 22 cases of lung cancer were found and 440 abnormal growths were identified in 298 participants.

PET scans accurately detected 18 of 20 identified cancer cases, and six patients underwent a surgical biopsy (tissue sampling) for a suspicious growth that turned out to be noncancerous. Doctors were able to completely remove the lung cancer tumor in all but one of the patients, and the average size of the tumors found was 18 millimeters.

After the first two rounds of lung cancer screening with the new method, none of the volunteers went on to develop lung cancer over the next two and a half years of follow up.

In addition, researchers found that growths smaller than 5 mm that were detected in initial CT scans could safely be checked again after 12 months without major risk of tumor progression.

Researchers say there is still a lot to learn about detecting early-stage lung cancers, but this study shows that this combined lung cancer screening method can accurately detect tumors at their earliest stages in persons at risk.