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Study: Scans May Find Lung Cancer Sooner

By ALICIA CHANG

A controversial new study offers the strongest evidence yet that screening smokers for lung cancer with computerized chest scans can save lives, much as mammograms do for women with breast cancer.

Doctors have long had doubts that early detection of tumors could improve survival, and also feared that screening would lead to too many false alarms and unnecessary biopsies. Scans are not now recommended, but many smokers have been paying for them on their own for their peace of mind.

The new study strongly suggests there is a survival benefit. But it does not prove the point, because it lacked a comparison group, many scientists say.

In the study, people whose early lung tumors were detected by CT scans and promptly removed had an estimated 10-year survival rate of 92 percent - much better than the roughly 70 percent who typically survive, and far better than the dismal 5 percent who make it that long after the disease has spread beyond the lungs.

"It gives us greater confidence that screening may really offer advantages in saving lives from lung cancer," said Dr. Robert Smith, director of screening at the American Cancer Society, which was among more than two dozen groups that funded the study.

Even though the study lacked a comparison group, he said, "it's highly unlikely that this completely invalidates the observation of a favorable benefit from early diagnosis."

Lung cancer is the world's top cancer killer. About 174,470 Americans and 1 million people worldwide will be diagnosed with it this year. The vast majority will die, largely because the disease is found too late for treatment to do much good. Only 16 percent of cases in the United States are detected in Stage 1, when tumors are still confined to the lung.

Studies in the 1970s found that screening smokers with regular X-rays did not improve lung cancer survival, and such efforts were largely abandoned until the 1990s, when CT scans were developed. These sophisticated X-rays produce images of the lungs from many angles and can reveal pea-size growths long before they produce symptoms. Interest in the scans rose in 1999, when Dr. Claudia Henschke of New York-Presbyterian Hospital/Weill Cornell Medical Center published a landmark study showing that they found far more tumors than conventional X-rays did.

Her new study, reported in Thursday's New England Journal of Medicine, extends these results to a larger group of people and reports on survival. Dozens of researchers

around the world screened 31,567 people at high risk of lung cancer because they were current or former smokers or had been exposed to a lot of secondhand smoke.

Participants were initially screened between 1993 and 2005, and the vast majority came back for repeated screenings about a year later. Thirteen percent of those who were initially screened and 5 percent who had repeated screenings had suspicious spots that required further testing. Biopsies were performed on 535 patients; 484 were diagnosed with lung cancer, including 412 in the early stage. Most had surgery or chemotherapy, and eight were untreated.

Researchers then calculated survival probability using a common statistical tool. The estimated 10-year survival rate, regardless of when the cancer was diagnosed or the type of treatment, was 80 percent.

That increased to 88 percent if the cancer was detected in an early stage, and to 92 percent if such patients had surgery within a month of diagnosis. The eight untreated patients all died within five years of diagnosis.

"When you find it when it's small, you can essentially cure most of them," Henschke said.

The scans cost between \$200 and \$300, roughly double the price of a mammogram. Insurers are not covering lung scans because the government does not recommend them.

The biggest weakness in the study is that it lacked a comparison group, making it impossible to tell how people would have fared if they didn't receive a CT scan.

Henschke said the general population can be the comparison group, because lung cancer is so common and its survival odds are so well known. But many scientists disagreed, and said her study falls short for this reason.

"It raises great hope for CT screening," but it doesn't prove a benefit, said Dr. Denise Aberle of the University of California, Los Angeles, who is helping conduct a government-funded study that should give more definitive answers. It is screening 53,000 current and former smokers with CT scans or regular chest X-rays to see whether either can cut lung cancer deaths. The Mayo Clinic also is leading a screening study, and others are under way in Europe.

Until there is proof, patients considering screening should ask their doctors about the pros and cons, said Dr. Joan Schiller, a cancer specialist at the University of Texas Southwestern Medical School.

"They need to know that the chances are good that something abnormal will be found," which could lead to false alarms, she said.

In light of the latest results, at least one patient advocacy group - the Lung Cancer Alliance - is urging doctors to regularly screen patients for lung cancer.

"This is the most important breakthrough for the lung cancer community that has ever

happened," president Laurie Fenton said in a statement.

Research on lung cancer detection may have been delayed because of the stigma associated with the disease - the notion that smokers brought this on themselves and that little could be done once they developed it, many doctors say. The problem grew worse when X-ray screening studies in the 1970s failed to find a benefit, Dr. Michael Unger of the Fox Chase Cancer Center in Philadelphia wrote in an accompanying editorial.

Henschke's latest study is a "provocative, welcome salvo in the long struggle to reduce the tremendous burden of lung cancer on society," Unger wrote.