

Even 'Light' Smoking Ups Lung Cancer Risk

— Mortality approaches that of heavy smokers

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Social smokers were more than eight times as likely to die of lung cancer than lifetime non-smokers, and their lung cancer risk was not substantially lower than that of heavier smokers in an analysis involving close to 19,000 people.

In a study of pooled data from four U.S. population-based cohorts, social smokers who reported smoking less than 10 cigarettes a day had a lung cancer death risk that was as high as two-thirds that of heavy smokers who reported smoking, on average, more than 20 cigarettes a day, according to Pallavi Balte, PhD, of Columbia University in New York City.

"Although the rate of current smoking is at a low point in the U.S., the proportion of light smokers has increased from 16% to 27% in recent years," Balte said at the virtual [European Respiratory Society \(ERS\) International Congress](#).

Balte added that little is known about the impact of low-intensity smoking on respiratory- and lung cancer mortality among smokers in the U.S. Her group examined the impact of light, or social, smoking on death from lung disease, including lung cancer. Participants were followed for a median of 17 years.

Of the 18,730 people identified in the pooled analysis (mean age 61; 56% female; 13% current smokers), 649 died of respiratory causes during follow-up for an incidence density rate (IDR) of 20/10,000 person-years and 560 died of lung cancer (IDR 17/10,000 person years).

Participants were classified as never smokers, former smokers, and current smokers, with the latter further classified as <10 cigarettes a day, 10 to 20 cigarettes a day, or >20 cigarettes a day frequency smokers.

Administrative criteria were used to classify respiratory and lung cancer mortality, and associations were tested via Cox proportional hazards modeling adjusted for sociodemographic factors.

"We found that compared to non-smokers, light smokers were two-and-half times more likely to die of respiratory disease and about 9-time more likely to die from lung cancer," she stated.

Light smokers had roughly half the rate of respiratory mortality as heavy (>20 cigarettes a day) smokers and roughly two-thirds the rate of lung cancer death, Balte said.

The risk of respiratory- and lung cancer mortality among the <10 cigarettes per day smokers was 49% and 71%, respectively, that of those who reported smoking 20 or more cigarettes a day.

"Our findings suggest that low-intensity smoking is disproportionately harmful," Balte said. "In order to reduce the risk of dying from respiratory disease or lung cancer, the best action is to quit smoking completely."

Jorgen Vestbo, DrMedSci, of the University of Manchester in England, noted that the study findings add to the evidence showing significant health risks associated with social smoking.

"This large study is important because it shows that smoking less will probably not have the effect that people are hoping for," Vestbo said in a press statement. "Although the proportion of people who smoke habitually is falling in many countries, we should still be concerned about those who identify as social smokers."

"Cutting down on smoking is a step in the right direction, as quitting tobacco is one of the best ways to protect the lungs and our overall health, but it is clear that there is no safe level of smoking," he added.

In another presentation at an ERS smoking cessation session, Rachel Gemine of Swansea University in Wales, reported on treatment complication rates associated with continued cigarette smoking following a diagnosis of lung cancer.

Gemine and colleagues previously showed that quitting smoking after receiving a diagnosis of lung cancer was associated with a [17% reduction](#) in mortality at 1-year versus continuing to smoke.

In their new study, they followed 1,134 patients with newly diagnosed non-small cell lung cancer for up to 2 years. Participants reported their smoking status, validated with exhaled carbon monoxide readings at baseline and during follow-up visits.

Treatment complications were either self-reported (diarrhea, vomiting), or noted by the patient's medical team for conditions such as post-op wound infection, chemotherapy-related neutropenia, and radiation pneumonitis. Complications were reviewed by an independent clinician blinded to smoking status.

A total of 290 (25.6%) patients were smokers at baseline and 84 (29%) of these patients quit during the follow-up.

The analysis found that quitters had fewer treatment complications at 1 month than patients who continued to smoke, but the difference was not seen at 6 months and 12 months.

"Initially we saw less complications in patients who quit smoking. These patients tended to have stage I and II non-small cell lung cancers and they were also more suitable for surgery," Gemine said. "So further work is now needed to look at the effects of histology and different types of treatment on the risk of complications among those who quit smoking, and those who continue to smoke."

Disclosures

The study by Balte's group was part of the National Heart, Lung, and Blood Institute pooled cohorts study. Balte, Gemine, and co-authors disclosed no relevant relationships with industry.

Primary Source

European Respiratory Society

Source Reference: [Balte P, et al "Association of low-intensity smoking with respiratory and lung cancer mortality" ERS 2020; Abstract 4389.](#)

Secondary Source

European Respiratory Society

Source Reference: [Gemine R, et al "Treatment complication rates in continued smokers vs. quitters after a diagnosis of lung cancer: a cohort study" ERS 2020; Abstract 4383.](#)
