The authors of the International Early Lung Cancer Action Program (I-ELCAP) (3) study concluded that the appropriate endpoint is lung cancer–specific survival, whereas the authors of the second study (4) concluded that overall survival was the correct outcome.

Although the interest of the media was only moderate for the study of Bach et al. (4), it was very high for the I-ELCAP report (3), which seemed to be lifesaving news. However, the use of lung cancer–specific vs all-cause mortality as the relevant endpoint induced a misleading bias (5–7). Estimating long-term lung cancer–specific survival in the subset of treated patients, as the I-ELCAP researchers did, can be extremely misleading because confounding effects of lead time and overdiagnosis biases of unknown magnitude can be amplified by both diagnostic errors relating to the real cause of death and insufficient periods of observation. Although the authors (3) reported 10-year lung cancer–specific survival figures, median follow-up was only 40 months, and less than 20% of the subjects were observed for more than 5 years. This time period is probably not sufficient to assess the real behavior of screening-detected lung cancers, 84% of which were diagnosed at baseline CT. Thus, the appropriate outcome to evaluate the success of screening is long-term mortality among the entire screened population.

On March 26, 2008, shortly after these studies were published, an article entitled “Cigarette Company Paid for Lung Cancer Study” appeared in the New York Times (http://www.nytimes.com/2008/03/26/health/research/26lung.html?_r=1&sq=cancer%20spiral&st=nyt&adxnnl=1&scp=1&pagewanted=1&adxnnlx=1207220435-uZGbOIYDRzFuWpEiCgX3QA). The authors of the article reported that the principal investigator of the I-ELCAP study was financed in part by The Lung Cancer Action Program (I-ELCAP) and that lung cancer is not as bad as previously thought, given the potential of screening to save people. In this context, it is worth noting that the principal investigator of the I-ELCAP is among the strongest advocates of spiral CT scan screening. In an opinion piece published in the Boston Globe (http://www.boston.com/bostonglobe/editorial_opinion/oped/articles/2008/02/08/stemming_the_craze_on_ct_scans/), Kassirer noted that two of the lead investigators of the I-ELCAP study own 27 patents on procedures for CT screening and lung biopsy.

We strongly subscribe to the position of Dr Catherine DeAngelis, editor in chief of the Journal of the American Medical Association, who was quoted in the Times article as saying “I would never publish a paper dealing with lung cancer from a person who had taken money from a tobacco company,” and we suggest that there is need for informed debate on the matters related to early detection of lung cancer in smokers. The “dark area” introduced by possibly heavily biased studies should be generally and unequivocally removed.

References

Notes

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