The review by Blasberg et al. re-examines the data regarding the role of sublobar resection for non-small cell lung cancer (NSCLC), a question that was “settled” 15 years ago by the Lung Cancer Study Group. Indeed, they are not alone, as a randomized study re-examining this question is underway by the Cancer and Leukemia Group B oncology group (140503). The level of interest suggests that many people suspect that the answer regarding the role of sublobar resection has changed.

A closer look at the review by Blasberg et al., however, suggests that the real issue is that with increased understanding, the questions have changed. The questions the authors address are not simply whether sublobar resection is as good as lobectomy for early-stage NSCLC. Rather, it is much more nuanced. First, they explore prognostic factors in stage I NSCLC, especially size. Then, they review data regarding the technique of sublobar resection (i.e., wedge resection versus segmentectomy). Specific subgroups of NSCLC, namely bronchioloalveolar carcinoma, may be more amenable to sublobar resection. Sophisticated methods of examining the margins may alter outcomes as well as potentially the addition of brachytherapy.

It is important to be clear about what situations are being examined. First of all, it is important to distinguish between a sublobar resection performed as a compromise in a patient who is unable to tolerate a lobectomy from an elective sublobar resection performed as an alternative to lobectomy. The former group has significant confounding factors, such as competing causes of death. The issues are also different, involving how one should define inability to tolerate lobectomy and the tradeoff between lower perioperative mortality versus higher mortality from cancer. In my opinion, it is better to completely separate these issues from those that are relevant with respect to elective sublobar resection and not to mix results of one group with that of another in the same article.

If we take a more nuanced approach, it is important to be able to clearly see the subtle differences in patients. This is an area that needs more research and clarity. Potentially important factors are tumor size, the proportion of the lesion with ground glass opacity (GGO) (i.e., pure GGO, >50% GGO, or mostly solid), the method of detection (i.e., computed tomography screening, incidental computed tomography, or symptoms), molecular or biochemical markers (i.e., epidermal growth factor receptor mutation and carcinoembryonic antigen), rate of growth, and patient age. I don’t find the histologic definition very useful clinically, because one cannot define a pure bronchioloalveolar carcinoma (now called adenocarcinoma in situ) until the final pathology report on a resected specimen is available. Unfortunately, these various factors are not clinically or biologically independent, so we have some work to do to better understand what the most important factors are and how we should develop an integrated way to define relevant patient cohorts.

Blasberg et al. do not come to firm conclusions in their review, which is appropriate. The available data, being primarily retrospective and with limited characterization of the patient cohorts, does not allow firm conclusions to be drawn. However, it provides an
important assessment of where we are in our understanding at this time. This provides a useful current baseline as we continue to explore the nuances with ongoing research.

Nevertheless, we are faced with new patients every day and cannot postpone making decisions about how to approach them and wait for the results of future studies. What is clear from this review is that a sophisticated approach to use sublobar resection is needed. Choosing the right patient population, using the right technique (i.e., segmentectomy with individual vessel/bronchial ligation), appropriately assessing margins, etc., are all likely to significantly affect outcomes. Some surgeons are clearly tempted to interpret the interest and data regarding sublobar resection as justification to use a simple thoracoscopic excision of a peripheral lesion as a definitive cancer treatment. The detailed review by Blasberg et al. clearly suggests that such a simplistic approach is not what the data addresses and cannot be endorsed. Ideally, of course, we should be treating patients in the context of clinical studies, such as the Cancer and Leukemia Group B randomized trial. Second best is assembling a local institutional team (i.e., surgeons, pulmonologists, and radiologists), reviewing the available data, and developing a formal institutional policy. Making decisions on a case-by-case basis based on one person’s judgment alone on a given day (i.e., without carefully thought out guiding principles) runs a high risk that inappropriate management of many patients will occur.

REFERENCES