Use it responsibly

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Central Message

If adequately planned and performed, wedge resection is a viable treatment option for early-stage lung cancer, irrespective of the alternatives.

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Under the formidable propulsion exerted by advocates of stereotactic body radiation (SBRT) for early-stage lung cancer, we are all asked at some point to argue the case for surgery in our hospitals or during national or international scientific meetings.¹ In a time when lobectomy rates are decreasing in favor of sublobar resections and SBRT,² an article like the one in this issue of the *Journal* by Yerokun and associates³ is destined to provide the surgeon with additional ammunition in fueling the heat of the never-ending debate about sublobar resections versus SBRT.⁴ The general impression, however, is that a truce can be called until long-term results of properly devised randomized, controlled trials become available.⁵ In the meantime, sublobar resections are becoming increasingly attractive as the ideal extension of resection for small tumors.⁶ Theoretically, wedge resection is the perfect comparison for SBRT. Wedge resection entails limited parenchymal extension, is typically done for peripheral lesions, is often (but not always) selected for patients considered marginal candidates for surgery, and is done without proper lymphadenectomy at either the hilar or the mediastinal level. SBRT shares most of these features: it targets an area limited to the lung nodule, is preferably performed outside the more central “no fly zone” of the lung, is often offered to patients who are not fit for or refuse surgery, and usually is chosen for those with a mysterious nodal status.⁵ The discrepancies seen in the literature as to the superiority of one treatment relative to the other are generated from the fact that, in the same fashion that SBRT can be somehow “modulated” to fit an individual patient’s needs, wedge resection of the lung is performed with varying levels of expertise and appropriateness across the thoracic surgical community.^{5,7} At one end lies the unacceptable wedge resection done systematically for any “small” lung lesions and any degree of impairment of cardiopulmonary function compared with the “norm” without respect for margins, let alone nodal stations. These procedures are almost invariably performed through a classic thoracotomy, sometimes adding insult to injury. This scenario often corresponds to the triumph of

unbalanced surgical subjectivity.⁵ At the other end of the spectrum lies the wedge resection done thoracoscopically for pure ground glass opacities. This scenario corresponds to a nirvana of the surgical decision-making process, because resection of cancerous ground glass opacities will certainly lead to prolonged survivals.

When very early lung cancer tumors are treated, SBRT and surgery are more frequently compared in terms of overall and disease-free survivals; in the absence of nodal involvement, the differences could be minimal in the first 3 years.⁵ The assessment of cancer-specific survivals may serve as a better surrogate of therapeutic efficacy than these indicators, because it demands a definitive cytohistologic diagnosis of cancer, thus avoiding outcome contamination from treating benign lesions.⁵ In this setting, another criterion that should be taken into consideration when comparing surgical procedures with SBRT is the type of surgical approach used to perform wedge resection, because invasiveness may be a factor in determining posttreatment morbidity, a strong point for refusing surgery in favor of SBRT.

The work by Yerokun and colleagues³ is to be commended because it probably is as good as it gets with current data and current limitations, including the lack of information that can still affect treatment choices but that we cannot derive from large databases. Until we will have data from randomized, controlled trials, a carefully implemented early-stage non-small cell lung cancer treatment program should be the aim of every tumor board, supported by a surgical expertise founded on minimally invasiveness and the individualization of patient care according to shared criteria of medical fitness for surgery.⁵ If the latter principles are

respected, irrespective of the alternatives, wedge resection has a definite role in the therapeutic strategy of early-stage lung cancer—it is up to us surgeons to use it responsibly.⁸

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