ALL EVIDENCE POINTS TO THE NEED FOR COLLABORATIVE CARE

Reply to the Editor:

We thank both Moghanaki and colleagues¹ and Rusthoven and colleagues² for their letters to the Editor in response to our study³ and the accompanying editorial.⁴ Both sets of authors bring up important issues to take into account when a patient with clinical early stage non–small cell lung cancer (NSCLC) is being considered for either sublobar resection or stereotactic radiation. These letters^{1,2} highlight the need for collaborative care from thoracic surgeons and radiation oncologists for patients with early stage NSCLC. As discussed in our article,³ we agree that our patients with NSCLC of all stages will best be cared for through multidisciplinary management to guide the best treatment plan for each individual patient. The evolution of NSCLC treatment with the identification of actionable mutations and the development of new therapies has made multidisciplinary care of our patients more important than ever. An example of multidisciplinary collaboration that has benefited patient care in another domain is the introduction of transcatheter valve therapies to allow the joint management of valvular heart disease by cardiac surgeons and cardiologists. As multidisciplinary care continues to be stressed in the current health and political climate, this collaborative work will be necessary for the future optimization of care for patients with NSCLC.

Both Moghanaki and colleagues¹ and Rusthoven and colleagues² have questioned the utility and applicability of retrospective data analyses to the current debate regarding the optimal management of patients with early stage NSCLC. We recognize and discussed extensively in our original article³ the limitations of using our retrospective analysis to affect patient care, but the importance of observational studies including cohort studies should not be dismissed. Although randomized, controlled trials (RCTs) and systematic reviews based on RCTs are considered the highest level of evidence, observational and cohort studies play a valuable role in the armamentarium of study designs for comparative effectiveness researchers and may provide insight in to real-world applicability and appropriateness of treatments outside a structured clinical trial or a specialized center.

A limitation of our comparative analysis of sublobar resection versus stereotactic body radiation therapy (SBRT) for patients with early stage lung cancer that was highlighted in our article³ is the lack of pulmonary function tests. Because of the observational nature of our analysis, we recognize that not knowing specific patient comorbidities and pulmonary function test values confound the comparison, and we were and continue to

be careful regarding the results and conclusions drawn from the study. Causal inferences drawn from an observational study can indeed lead to inappropriate conclusions. For this reason, we highlight the need for randomized data to address better this critical clinical question. This discussion of confounding variables, however, does help guide the design of future observational studies and RCTs. In addition, these analyses bring attention to the overall lack of level 1 evidence. If anything, retrospective analyses such as our study³ should further encourage the thoracic oncology community to design randomized studies that can be completed practically and should encourage patients to participate in them, regardless of how any individual provider feels about the relative quality of the treatment modality.

Rusthoven and colleagues² cite the STARS (Lung Cancer STARS Trial–STARS Revised Clinical Trial Protocol: Stereotactic Ablative Radiotherapy [SABR] in Stage I Non–Small Cell Lung Cancer Patients Who Can Undergo Lobectomy) and ROSEL (Trial of Either Surgery or Stereotactic Radiotherapy for Early Stage [IA] Lung Cancer) pooled analysis⁵ as the only randomized data comparing SBRT and pulmonary resection. There are also real dangers in implying that those results reflect level 1 evidence, however, or even that those results reflect higher quality than a large observational study, because the trials were only able to accrue 58 patients for analysis despite planned aggregate sample sizes of 1990 patients. As observed previously,⁶ there are significant potential flaws in the pooled analysis, because the study retrospectively developed methodology to analyze the data of two incomplete RCTs. At best, this study suggests that SBRT is not inferior to surgery and highlights the need for completion of a high-quality RCT. Given all these considerations, all health care providers caring for patients with NSCLC should strive to ensure completion of trials that compare pulmonary resection and SBRT, such as VALOR (Veterans Affairs Lung Cancer or Stereotactic Radiotherapy, [NCT02984761](#)), STABLE-MATES (JoLT-Ca Sublobar Resection [SR] Versus Stereotactic Ablative Radiotherapy [SabR] for Lung Cancer, [NCT02468024](#)), and POSTILV (Radical Resection vs Ablative Stereotactic Radiotherapy in Patients With Operable Stage I NSCLC, [NCT01753414](#)).

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