COMPUTED TOMOGRAPHY SURVEILLANCE OF PATIENTS WITH RESECTED LUNG CANCER: RECURRENCE OR SECOND PRIMARY LUNG CANCER?

To the Editor:

We read with interest the results of the study by Hanna and colleagues¹ demonstrating that for survivors of lung cancer, minimal dose computed tomography is superior to chest radiography for detecting new or recurrent lung cancer. Their findings of new or recurrent lung cancer are consistent with data from recent work illustrating that intrathoracic disease progression represents a high burden in such patients.^{2,3} As acknowledged by the investigators, a limitation of their study is the lack of distinction between new and recurrent lung cancer on follow-up, an important consideration given the disparate prognosis associated with each. Patterns of failure studies by Lou and colleagues² and Demicheli and colleagues³ differentiated between these 2 entities using commonly accepted criteria,⁴ and showed that disease detected on follow-up could be attributed to second primary lung cancer (SPLC) in 26% and 16% of cases, respectively.

Specifically in the present study, the median survival of 25 months (range, 6-48 months) in asymptomatic patients who were referred for palliative care suggests that some cases of SPLC may have

inadvertently been classified as metastatic disease. We would appreciate it if the investigators could clarify their clinical approach for deciding when a new pulmonary lesion is not an SPLC, and provide details of the local therapies used in cases detected during surveillance, both symptomatic (median survival ranging from 7 to 63 months) and asymptomatic. Was fitness to undergo further surgery used to decide if invasive re-staging was mandated? With the growing availability of stereotactic ablative radiotherapy, which is a highly effective local therapy for high-risk patients, even patients who are unfit for further surgery may become eligible for curative therapy in this situation.^{5,6}

The investigators have provided useful evidence-based data to support posttreatment computed tomography surveillance for early-stage non-small cell lung cancer. Access to these additional details would be useful for others who need to implement this in practice.

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Reply to the Editor:

We would like to thank Dr Louie and Dr Senan for their insightful comments on our article.¹ We acknowledge that the differentiation between disease recurrence and a second primary lung cancer is important, but we specifically did not attempt to make this distinction for 3 reasons. First, unless the 2 tumors are of different histology, there is no reliable way of differentiating them. The criteria suggested by Martini and Melamed,² such as tumor location, intervening lymph node basins, association with a premalignant tumor, and DNA ploidy, although useful, are not absolute. Second, because lung cancer survivors are at risk for both recurrence and a second primary, the distinction may not matter for the purposes of surveillance. Third, we believe that new parenchymal lesions in lung cancer survivors should be aggressively managed and treated, regardless of whether they are new primary tumors or isolated local recurrences. Fitness to undergo a second surgery was not an absolute criterion for further invasive investigation, and patients who were eligible for stereotactic ablative therapy were evaluated and treated accordingly. The range of local therapies used in this study included further anatomic resection, nonanatomic resection, external beam radiation, and stereotactic

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