20% more likely to be adequate for evaluation than aspirates without tissue cores. Histologic cores are also very useful for performing genetic and molecular analyses.³

It would be important to know whether the yield of histologic cores was addressed by the authors in the present study. Another point is that attaching the vacuum suction syringe to the needle hardly adds to the procedure duration, whereas performing an additional needle pass surely does. Therefore, in our opinion, the study does not generate adequate evidence to give up the practice of applying suction during EBUS-guided transbronchial needle aspiration. This would require a larger study in which all the histopathologic tissue yield issues are addressed and the yield of tissue cores can be demonstrated to be equal to EBUS-guided transbronchial needle capillary sampling and conventional aspiration with suction.

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Financial/nonfinancial disclosures: The authors have reported to *CHEST* that no potential conflicts of interest exist with any companies/organizations whose products or services may be discussed in this article.

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DOI: 10.1378/chest.12-2239

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Response

To the Editor:

We thank Drs Madan and Guleria for their comments regarding our study of endobronchial ultrasound (EBUS) performed with and without aspiration.¹ Their main question is whether we analyzed the ability to obtain a histologic core with each technique (with and without suction). They base the relevance of the histologic core on the study of Lee et al,² which showed that obtaining a core in the first or second pass is associated with a high yield, and also on the study of Nakajima et al,³ who performed epidermal growth factor receptor analysis on histologic cores obtained with EBUS. We did not analyze the ability to provide histologic cores for each technique for several reasons. First, it

is not our current practice to routinely send "cores" for histology, unless tissue architecture is warranted. After on-site preparation of slides, we routinely place all other material in liquid media for cell-block preparation. Histologic sections of the formed pellet enable cell patterns to be studied and provide enough material for immunohistochemistry and molecular analyses. A "true" tissue core biopsy specimen is only obtained when a sheathed slotted needle is used, which, to date, is not available for EBUS. What Drs Madan and Guleria refer to as "histologic core" is typically a mix of clot and small tissue fragments that look like cores of tissue. Since there is less trauma when no suction is applied, this technique is less likely to provide large visible fragments on glass slides, which, as we mentioned, are mostly blood clots. Of note, the cited article of Lee et al² obtained histologic cores in 75% of samples, but they were only able to create a cell block in 33% of the samples. It is then just a matter of how the solid or semisolid material obtained with EBUS is analyzed. To the best of our knowledge, there is no study comparing diagnostic yield of histologic core vs cell-block preparations. Although difference in cellularity of cell blocks for each technique was not analyzed in our study, the cell-block results were part of the overall analyses for diagnostic yield, in which we found no differences between the two techniques. Regarding the postulated need to submit a "core" sample to perform molecular testing, there is now robust evidence showing that such analysis can be performed from cell-block samples or microdissection of malignant cells from slides.^{4,5}

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Financial/nonfinancial disclosures: The authors have reported to *CHEST* that no potential conflicts of interest exist with any companies/organizations whose products or services may be discussed in this article.

Funding/Support: This research was supported in part by the National Institutes of Health through a Cancer Center Support Grant [Grant CA016672] to MD Anderson Cancer Center.

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DOI: 10.1378/chest.12-2477

ACKNOWLEDGMENTS

Role of sponsors: The sponsor had no role in the design of the study, the collection and analysis of the data, or in the preparation of the manuscript.

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