Commentary: Teach me to fish—spears, rods, and nets: Lymph node sampling during endobronchial ultrasound

Jules Lin, MD

Give me a fish and feed me for a day. Teach me to fish and feed me for a lifetime.

Sullivan and colleagues performed a small feasibility trial comparing targeted versus systematic node sampling using endobronchial ultrasound (EBUS). They conclude that the progression criteria were met and plan to proceed with a larger, pan-Canadian noninferiority crossover trial evaluating whether or not mediastinal nodes that appear benign on imaging and EBUS need to be biopsied.

Only patients with clinical N0 or N1 disease were included, but T stage was not used to determine randomization. Controlling for T stage in the larger, multicenter trial will be important because a higher T stage is also associated with increased risk of mediastinal lymph node metastases. With such a low rate of malignant lymph nodes—only 1 in each group—evaluating the ability of targeted sampling to identify nodal disease may be difficult with the current inclusion criteria. The authors may want to consider focusing on patients with a higher T stage or N1 disease to increase the likelihood of finding positive mediastinal nodes.

Although the 5.45% missed nodal metastasis rate was less than the 6% threshold set in the study, patients are more likely to be concerned about the rate of missed nodal metastases than decreasing the procedure time or number of inconclusive nodes. Nodal disease is an important prognostic factor. If not for the crossover to systematic sampling, these patients may not have received potentially beneficial neoadjuvant or definitive chemoradiation. The author’s decision to include crossover to systematic sampling will be important to encourage enrollment in the multicenter trial. However, a limitation of no longer randomizing patients in the subsequent study will be the loss of long-term outcomes data comparing targeted versus systematic sampling.

The authors cite a missed nodal metastasis rate for systematic sampling ranging from 2.5% to 7.5%. However, the 5.45% missed nodal metastasis rate in the current study is in comparison to systematic sampling and would be in addition to the missed nodal metastasis rate for systematic sampling cited above.

Another important point to consider is whether or not these results will be generalizable to wider practice. Interpretation of endobronchial ultrasound is operator dependent, and the authors should be congratulated on a nondiagnostic pathology rate of 18% compared with 42% in the reported literature. However, can the same low nondiagnostic pathology rate be expected in other centers, or will this targeted sampling approach be limited to a subset of providers and centers with a certain level of expertise?

From the Section of Thoracic Surgery, Department of Surgery, University of Michigan Medical Center, Ann Arbor, Mich.

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Address for reprints: Jules Lin, MD, Section of Thoracic Surgery, Department of Surgery, University of Michigan Medical Center, 1500 E Medical Center Dr, 2120TC/5344, Ann Arbor, MI 48109-5344 (E-mail: juleslin@umich.edu).

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The results of this feasibility trial are of interest, and we look forward to the results of the larger, multicenter trial from the Canada Lymph Node Score Project. Hopefully, these results will teach us all to fish by answering whether we should continue casting a wide net with systematic sampling or if we have reached the point of using targeted sampling with a fishing rod and a spear guided by EBUS.

References