However, so long as the needle method is used, there is always a potential risk of air embolism caused by the tip of a needle moving accidentally. We recommend an “open-cut” selected segmental inflation technique without use of a needle or the selected segmental inflation technique through a thin bronchoscope.³

Tsunayuki Otsuka, MD
Yoshihiro Nakamura, PhD, MD
Aya Harada, MD
Masami Sato, PhD, MD
General Thoracic Surgery
Kagoshima University
Kagoshima, Japan

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THE USE OF RADIOFREQUENCY ABLATION FOR PATIENTS WITH NONDYSPLASTIC BARRETT'S ESOPHAGUS To the Editor:

In his recent commentary article entitled “Radiofrequency ablation for nondysplastic Barrett’s esophagus: Should we do it, because we can?” Veeramachaneni¹ summarizes his perspective with the statement that “In light of the ambiguity of the natural history of Barrett’s esophagus without dysplasia, radiofrequency ablation should currently only be done in the context of a clinical trial.” Although we do agree that the routine use of radiofrequency ablation for patients

with nondysplastic Barrett’s esophagus (BE) should not be considered the standard of care, we also believe that several considerations need to be taken into account before such a blanket statement can be made.

First, as Veeramachaneni¹ correctly points out, the current recommendation for nondysplastic BE consists of surveillance endoscopy with systematic biopsy. Even so, it is well documented that the majority of physicians in the United States and abroad do not follow the recommendations, especially relating to the number and systematic nature of the biopsy samples needed.²

Second, a significant number (as many as half) of patients with BE who have had either high-grade dysplasia or invasive cancer did *not* have dysplasia detected during their previous endoscopies.³

Third, all patients with nondysplastic BE are probably not the same with regard to their cancer risk. For example, patients with longer segments of BE appear to be at a higher risk of development of invasive cancer.⁴ In addition, younger patients with BE may also be at a higher risk of eventual development of invasive cancer, as extrapolated from evidence that indicates that the duration of BE is a determinate of cancer risk⁴ combined with recent population-based data that suggest that the annual risk of development of invasive cancer persists with time.⁵

Fourth, radiofrequency ablation for BE is a very safe procedure, and it is associated with an extremely low complication rate.⁶ Indeed, among the 179 ablation procedures performed in our own phase II clinical trial (both dysplastic and nondysplastic BE), adverse events occurred after only 13 procedures (7%), and all complications were minor: fever (n = 5), inability to line up the circumferential ablation device effectively (n = 3), self-limited bleeding (n = 1), asymptomatic and spontaneously resolving stricture (n = 1), aspiration

(n = 1), transient heart block (n = 1), and esophageal candidiasis (n = 1).

Finally, radiofrequency ablation results in eradication of BE in the majority of cases in which it is used.⁶ Further, data from a randomized, sham-controlled trial indicate that cancer risk is reduced by the use of radiofrequency ablation in patients with dysplastic BE.⁶ Whether this cancer prevention effect persists for nondysplastic BE is unknown and would require a much larger randomized trial to address.

In summary, although we agree that radiofrequency ablation should not currently be used routinely for nondysplastic lesions, we are fortunate enough to have access to a very safe, effective technology for eradicating BE. Given this fact, along with the variable malignant potential of nondysplastic BE, the “ambiguity” associated with nondysplastic BE that Veeramachaneni describes in his commentary, and the inconsistencies inherent in the practice of surveillance, we believe that the universal exclusion of patients with nondysplastic lesions from access to radiofrequency ablation is a mistake.

Robert J. Korst, MD^{a,b}
Benjamin E. Lee, MD^{a,b}

^aThe Daniel and Gloria Blumenthal
Cancer Center
Paramus, NJ

^bThe Division of Thoracic Surgery
Department of Surgery
The Valley Hospital/Valley Health
System
Ridgewood, NJ

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Reply to the Editor:

I am in agreement with Drs Korst and Lee that there may be certain populations with nondysplastic Barrett's esophagus (BE) who may be at increased risk for esophageal cancer. There are currently no compelling data, however, to recommend any intervention beyond repeated surveillance endoscopy in patients with BE. The American Gastroenterological Association based its recommendation for surveillance on an estimated rate of progression of disease to high-grade dysplasia or adenocarcinoma of 0.5%. Recent large, population-based studies suggest that this risk estimate is actually too high. Hvid-Jensen and colleagues¹ reported in the *New England Journal of Medicine* in October 2011 an annual risk of progression to adenocarcinoma in patients with BE of 0.12%. This finding was based on analysis of a comprehensive database that included the entire population of Denmark. In a similar study of the entire population of Northern Ireland, Bhat and colleagues² reported a nearly identical absolute annual risk of 0.13%.

Current data indicate that the risk to the patient of malignant transformation from BE is even lower than previously thought, suggesting caution with invasive strategies that may in fact be over-treatment. There may be a role for radiofrequency ablation in selected—and currently undefined—subgroups of patients with nondysplastic BE.

Given the overall low cancer risk, the bar is set very high to prove cost-effectiveness, reduction in cancer progression, or reduction in mortality. I believe that radiofrequency ablation for nondysplastic BE is therefore difficult to justify, outside of a well-reasoned clinical trial.

Nirmal K. Veeramachaneni, MD
Division of Cardiothoracic Surgery
University of North Carolina—Chapel Hill
Chapel Hill, NC

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VENOVENOUS EXTRACORPOREAL MEMBRANE OXYGENATION IN ACUTE RESPIRATORY FAILURE: DO WE NEED A NEW CONFIGURATION?

To the Editor:

We read with great interest the article by Bonacchi and colleagues¹ in a recent issue of *The Journal of Thoracic and Cardiovascular Surgery*. Bonacchi and colleagues¹ presented their experience with the use of venovenous extracorporeal membrane oxygenation (ECMO) in 30 patients with severe acute respiratory failure and described their experience with the use of a customized arterial cannula to reduce the blood recirculation fraction (BRF) when high ECMO flows are needed to improve systemic oxygenation. In their "χ" configuration, a traditional inflow cannula is modified by making a 60° angle in its distal third to allow tip orientation toward the tricuspid valve. In their series, Bonacchi and colleagues¹ reported significant improvements in

oxygenation indices and a reduction of more than 20% in the BRF. Importantly, the study showed that the modified cannula can be used safely without mechanical complications.

The problem of recirculation with a double-lumen catheter for venovenous ECMO has been well studied in both animal and human models.²⁻⁴ In patients with acute respiratory failure who require high ECMO flow support, a low BRF is key to ensure adequate systemic oxygen delivery. The study by Bonacchi and colleagues¹ addresses this important issue and demonstrates that a low BRF is associated with successful venovenous ECMO in patients with respiratory distress. Although we recognize the efforts of Bonacchi and colleagues¹ to develop a new strategy to overcome the problem of BRF when high ECMO flows are needed, we would like to point out several important points that they failed to include in their report. First, a bicaval dual-lumen catheter that is already available in the United States (Avalon Elite; Avalon Laboratories LLC, Rancho Dominguez, Calif) can be safely and successfully used to provide adequate venovenous ECMO support in patients with acute respiratory failure.⁵ Second, the use of this dual-lumen Avalon Elite cannula offers the advantage of single-site cannulation, eliminates the need to use multiple catheters, and avoids the use femoral vascular access.⁵ Third, studies have shown that the use of the dual-lumen Avalon Elite cannula results in a very small BRF (as low as 2%).⁶ Finally, placement of the dual-lumen Avalon Elite cannula can be successfully achieved with fluoroscopic and a transthoracic echocardiographic guidance and does not require an invasive transesophageal approach.⁷

Although we applaud the efforts of Bonacchi and colleagues¹ and recognize the value of their technique in overcoming the problem of BRF, we believe that the use of the currently