bronchoscope in the preoperative nodal staging of non-small cell lung cancer. In the study,¹ we demonstrated that the sensitivity of combined EBUS-TBNA and EUS-FNA was significantly higher than that of each technique alone.

The usefulness of EBUS-TBNA for the mediastinal nodal staging of lung cancer is clear. The sensitivity of EBUS-TBNA alone has been reported² to be as high as 89%, and so this technique alone seems to be good enough on the basis of the excellent initial results. However, many previous studies with excellent results have biases in patient selection. Some of them included only patients with a high pretest probability (eg, enlarged, positron emission tomography–positive lymph nodes) or excluded patients with lymph nodes that would not likely be accessed by EBUS.^{2,3}

The sensitivity in our study, which included patients with normal-sized lymph nodes and inaccessible lymph nodes by EBUS, and excluded patients with bulky lymph nodes, is lower than that in the previous reports. Especially in patients with normal mediastinum on computed tomography and positron emission tomography, we encountered difficulty detecting mediastinal metastases by EBUS-TBNA. Similarly, some recent studies^{4,5} have reported that the sensitivity of EBUS-TBNA in patients with radiologically normal mediastinum was lower than that found in previous studies. In particular, the study by Shingyoji and colleagues,⁵ reported that the sensitivity of EBUS-TBNA for nodal staging in patients with radiologically normal mediastinum was 35%.

As suggested by Dr Annema, stations 4L and 7 can be easily sampled by EUS-FNA. In our study,¹ positive results from these lymph nodes, especially normal-sized lymph nodes, could be achieved only by EUS-FNA in some cases. We performed 2 punctures for each lesion using each procedure, and the positive specimen might have been

sampled at the 3rd or 4th puncture, which was performed through the esophagus. However, as suggested by Dr Annema, we believe that the better ultrasonic visibility, accessibility, and tolerability of EUS-FNA contributed to the increased yield. EUS-FNA plays a complementary role to that of EBUS-TBNA, for not only inaccessible lesions with EBUS, including stations 8, 9, and 5, but also accessible ones, including stations 4L and 7.

We learned the EUS-FNA procedure from a gastroenterologist,⁶ and have performed the procedure at the left lateral position, which is the traditional EUS-FNA position, with an EUS endoscope for preventing gastroesophageal reflux and cough during the procedure. Other investigators⁷ successfully performed this procedure with the supine position. Although the reports^{1,6,7} on the usefulness of EUS-FNA using an EBUS bronchoscope have gradually increased, the details of its clinical implementation, such as techniques, indications, and method of training, remain unknown. We must further investigate this useful procedure, which can be performed with an EBUS bronchoscope by pulmonologists and/or thoracic surgeons.

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HIGH ACTIVATED CLOTTING TIME, OR VENOUS GRAFT, OR OFF-PUMP CORONARY ARTERY BYPASS GRAFTING? TOO EARLY TO CALL OFF THE PARTY!

To the Editor:

I congratulate Houliand and colleagues¹ for a well-planned study between coronary artery bypass grafting (CABG) performed off pump (OPCAB) versus conventional CABG. It is interesting to note that in this study the patency rates of the internal thoracic artery (ITA) grafts were the same for both groups, with 74% of the occlusions seen at the site not different between the 2 techniques.² It is well known in the real world that the harvesting of venous grafts and the top ends are often left to the junior colleagues. Moreover, venous grafts are prone to kinking with even a little excess length, whereas arterial grafts are more forgiving of excess length.

It is noteworthy that activated clotting time (ACT) was maintained at longer than 400 seconds and that

there was significantly greater blood loss in the OPCAB group, which contradicts most other published OPCAB articles.¹ Recently, it was noted that during OPCAB an ACT longer than 350 seconds is associated with a significantly higher rate of postoperative myocardial infarction.³ It is presumed that at a longer ACT there may be platelet activation leading to a detrimental effect,³ very similar to the situation with percutaneous coronary intervention, in which a longer ACT is always avoided for the same reason. Physiology during OPCAB is similar to that during percutaneous coronary intervention rather than to that during conventional CABG. Longer ACT may lead to postoperative myocardial infarction. It is time for OPCAB surgeons to look again at the anticoagulant strategy. As an OPCAB surgeon, my assumption is that a longer ACT may have had a detrimental effect on non-ITA grafts, and such an effect may explain the findings of the Danish On-pump Versus Off-pump Randomization Study (DOORS) study, including the greater blood loss with OPCAB.¹ An added advantage of maintaining a lower ACT during OPCAB is lesser blood loss.³

In the long-term survival study of Kim and colleagues,⁴ significantly higher incidences of diabetes and hypertension in the OPCAB group may have contributed to a higher long-term all-cause mortality, rather than inferior graft patency of OPCAB per se. It is interesting to note that in that study⁴ 2 operators (operators C and D) were associated with higher long-term mortalities after OPCAB, and they performed more conventional CABG than OPCAB procedures. The lesser number of grafts in OPCAB is also indicative of inadequate operator experience. Operator experience is an important determinant of OPCAB result.

I congratulate Smith for a nicely analytic editorial on the topic. My own limited experience has proved

that with an intra-aortic balloon pump as a bailout, it is possible to perform OPCAB without any conversion, and complete revascularization can be easily performed.⁵ My colleagues and I compete with the cardiologists, aggressively pursuing multivessel percutaneous coronary intervention, and offer anaortic OPCAB with bilateral ITA grafts as a better alternative in terms of graft patency.

It is very reassuring for us to see equal patency rate of OPCAB and conventional CABG ITA grafts in the DOORS study.¹ It is probably longer ACT, venous grafts, or other technical factors (length of the graft, native coronary artery stenosis)—and to some extent operator factors—that may have resulted in occlusion of the non ITA grafts. We probably need an OPCAB study specifically comparing longer and shorter ACTs to arrive at a definitive conclusion. I would say that the OPCAB party has just begun. It is too early to call off the party!

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DEFINITION OF PROXIMAL ANASTOMOSIS IN THE DOORS STUDY Reply to the Editor:

We thank Smith¹ and Saha² for their comments in response to our article regarding graft patency in the Danish On-pump Versus Off-pump Randomization Study.³ They have noted that a high proportion of the graft obstructions were found at the proximal anastomoses, which they believe should not be influenced by the use of cardiopulmonary bypass.

We see 2 possible explanations for this finding. One has to do with the definition of “proximal anastomosis” applied in the study. For some grafts, the definition is simple. For a single aortocoronary graft, the proximal anastomosis is placed on the aorta, and pedicled thoracic artery grafts do not have proximal anastomoses. For other types of grafts, however, definitions are more complicated. In the case of a Y-graft, we defined the end-to-side anastomosis on the pedicled internal thoracic artery as the proximal anastomosis of the nonpedicled graft. In the case of a jump graft, we defined the outflow from a side-to-side anastomosis to be the proximal anastomosis of the part of the downstream graft (Figure 1). This definition was chosen because a stenosis at this site will affect the inflow to the graft in the same manner as would a stenosis in the proximal anastomosis of an aortocoronary single graft. According to this definition, the technical challenges with performing the proximal anastomosis of a distal jump graft are similar to those that apply to performing the distal anastomosis. Fifty of the obstructed proximal anastomoses in the study were of this kind.

The other difficulty in interpreting the data is the fact that an occlusion of a distal anastomosis will often result in thrombosis of the entire graft. In that case it is not possible to inject contrast at the site of the proximal anastomosis, which is therefore deemed to be