TABLE 1. Results of redo mediastinoscopy after induction chemotherapy compared with results of PET/CT¹⁻⁵

Author, year	No. of patients	IT	Morbidity (%)	Mortality (%)	Sensitivity (%)	Specificity (%)	Accuracy (%)
Cerfolio and coworkers, 2006 ¹ (PET/CT study)	93	CT-RT	0	0	62	88	79
Pitz and coworkers, 2002 ²	15	CT	0	0	71.4	100	87
Rami-Porta and coworkers, 2003 ³	24	CT	0	0	83	100	91
Stamatis and coworkers, 2005 ⁴	165	CT-RT	2.5	0	74	100	93
De Waele and coworkers, 2006 ⁵	32	CT (26) CT-RT (6)	3.1	0	71	100	84

IT, Induction therapy; CT-RT, chemoradiotherapy; CT, chemotherapy.

cause of the scar tissue developing after the first intervention. However, in subsequent years, they were shown to be technically feasible also after induction chemotherapy. The most recent updated series of redo mediastinoscopy after induction chemotherapy are summarized in Table 1²⁻⁵ and compared with the overall results of restaging by means of PET/CT in the study of Cerfolio and coworkers.¹ The latter data were extracted from Figure 2 and not reported as such by the authors. Published mortality and morbidity rates of redo mediastinoscopy are very low. Its main advantage consists of providing histologic evidence of mediastinal downstaging in contrast to the pure anatomic and histologic data given by means of PET/CT. Moreover, Cerfolio and coworkers advocate the use of maxSUV of the primary tumor and involved lymph nodes. In contrast to what its name suggests, maxSUV is not standardized among different PET scanners and centers, making comparison and adoption of the proposed values by other institutions impossible. Also, the high cost of PET/CT is not addressed by the authors.

The very interesting data coming from the EUS-FNA series pave the way for a constructive discussion. An alternative strategy to avoid redo mediastinoscopy consists of initial proof of mediastinal node involvement by means of EUS-FNA, followed by induction chemotherapy and, afterward, mediastinoscopy to evaluate mediastinal response. In this way a technically more demanding redo mediastinoscopy can be avoided by thoracic surgeons having no experience with this technique. We would appreciate the authors' comments on these remarks.

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Reply to the Editor:

Dr Cesario and colleagues have posed some important and interesting questions concerning the role of repeat mediastinoscopy after induction radiotherapy. We need to limit our comments to patients who have had radiotherapy because that is the real issue and not those who had chemotherapy alone. The authors state that "pathologic

reassessment of the mediastinum is strongly advisable," and we, as our article clearly outlines, agree. The table the authors show compares a clinical staging modality, positron emission tomography (PET)/computed tomography with a pathologic staging procedure (repeat mediastinoscopy). As we have preached and written, pathologic staging always trumps clinical staging,¹ and thus this comparison is unjustified. Repeat PET/computed tomography directs biopsies by providing targets for biopsy, as we clearly state. The question is as follows: What is the safest and most accurate way to achieve rebiopsy of previously cancerous N2 mediastinal lymph nodes after induction chemoradiotherapy? Although there is little doubt that repeat mediastinoscopy can be performed safely (as we have done several times ourselves), we do not recommend it on a national basis nor do we believe it is accurate in most surgeons' hands. The authors are biased by their own skill and might not realize that the vast majority of these patients are not seen by surgeons who have their type of expertise. If we send out the message that repeat mediastinoscopy after radiotherapy is safe and accurate or is "the standard of care," I fear the subsequent morbidity and even mortality that might ensue. A large number of patients in the United States with lung cancer receive their surgical care from less-experienced hands than those of Drs Granone, Schil, and Cesario. The message from our literature must take this fact into account. I do not believe that repeat mediastinoscopy after chest irradiation is safe or accurate in the typical center. In fact, although it might be safe in select hands, the accuracy is still in doubt. Careful analysis of the articles referenced by the authors' letter shows the relatively high morbidity for mediastinoscopy for those who had radiotherapy (not chemotherapy alone). Thus

we continue to recommend rebiopsy of the 2R, 4R, and 4L stations through thoracotomy or through video-assisted thoracoscopic surgery.

The authors' second question concerns the oxymoronic nature of the term *standardized uptake value* or maximum standardized uptake value (maxSUV). The authors state that "maxSUV is not standardized among different PET scanners and centers, making comparison and adoption of the proposed values by other institutions impossible." We strongly but amicably disagree with this statement. First, the percentage change takes into account most of these variables, and this is why we recommend the repeat PET scan to be performed at the same center using the same techniques as the initial staging PET scan. Second, after much investigation and discussion with PET engineers, designers, and technicians, as well as expert nuclear radiologists, across the world, we are told that the difference in the maxSUV of a patient's cancer on a PET scanner in Italy might only be up to 20% different if the patient had been scanned in Birmingham, Alabama. It is true that 20% is not negligible, but this is the upper end of the discrepancy. Many steps have already been implemented to limit these differences and to promote the standardization of the PET techniques and thus the maxSUV values. Finally, because we recognized this as a possible limitation to the everyday clinical applicability of our data, our future studies, some of which have been completed, have focused on ways to account for these differences. For instance, in this article we use the percentage change of the maxSUV of the primary tumor and of the involved mediastinal lymph node. We also have studied the use of the ratio of the maxSUV of the tumor to the N2 nodes to help predict metastatic disease. When that ratio is 0.6 or greater, there is an 85% chance the node is malignant, and this holds true for many different centers.² This obviates the need for absolute values and takes into account the differences in maxSUVs across different centers. Finally, we are also studying the ratio of the size of the tumor to the maxSUV value of the tumor.

The third and final question posed concerns the increasing use of endoscopic ultrasonography-guided fine-needle aspiration (EUS-FNA). We have studied and written extensively on EUS-FNA^{3,4} and have used it as our first line of biopsy for

N2 nodal biopsy in patients who have suspicious lymph nodes metastasis in posterior (7, 8, and 9) stations. Since 2001, we have used EUS-FNA first so as to reserve the mediastinoscopy for after induction chemoradiotherapy. We also use repeat EUS-FNA in those patients as well, as we have described in our articles. However, the authors did not note the downside of this strategy, which is that one might miss unsuspected N3 disease initially by not using mediastinoscopy. The incidence of unsuspected N3 disease is higher in patients with multinodal N2 disease as well. Finally, EUS-FNA is great for the 7, 8, and 9 stations but is blind in most endosonographer's hands for the 2R, 4R, 2L, 5, and 6 stations. I greatly appreciate the authors' thoughtful and insightful letter, and I agree with the majority of their comments.

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Ascending-descending aortic bypass with the aid of a heart-lifting device

To the Editor:

We read with interest the article "Ascending-descending aortic bypass with the aid of a heart-lifting device" by Aris and associates.¹ We had an opportunity to use the technique in the management of a 15-year-

Figure 1. Use of the Starfish 2 device (Medtronic, Inc) for ascending-descending aortic bypass for retracting the ventricle.

old girl. She had arch reconstruction with pulmonary artery banding through a thoracotomy at the age of 8 months for type B interruption with ventricular septal defect. Six months after the procedure, she had undergone pulmonary artery debanding with ventricular septal defect closure. She had narrowing across the arch repair site, with a gradient of 80 mm Hg across the stenosed segment and significant left ventricular hypertrophy.

In view of her previous operation, it was decided to perform ascending-descending aortic bypass during cardiopulmonary bypass with a beating heart. An 18-mm Dacron tube graft was anastomosed to the descending aorta with a heart-lifting device (Starfish 2; Medtronic, Inc, Minneapolis, Minn) to keep the ventricular mass out of the way during the operation (Figure 1). The descending aorta was approached from the posterior pericardium. The stays on the margins of the pericardium can also be used to provide additional retraction during exposure. We placed the graft lateral to the right atrium within the pericardium because we considered that the lie of the graft would be better in this position. The patient had uneventful postoperative recovery with no residual gradient between the upper and lower limbs at the time of discharge.

Other techniques have been described for performing bypass in the management of complex recoarctation. The lateral isthmus bypass² between the left subclavian artery and the descending aorta has the advantage of being an "anatomic" bypass. The disadvantage of the technique in our patient was that it would require a repeat thoracotomy, and there