reduced for at least a month after implantation. Irrespective of the harvesting method, therefore, vein grafts would inevitably be rendered ischemic.

For the vasa vasorum to become functional again, microvascular repair (angiogenesis and reconnection to the circulation) would be mandatory.^{2,3} In vein grafts fitted with external Dacron sheaths, oxygen tension is twice that in control grafts.⁴ Since external sheaths promote the formation of a neo-vasa vasorum and inhibit graft thickening,² these data indicate that restoration of a functional vasa vasorum plays a role in mediating vein graft thickening. We⁵ also found that despite removal of the adventitia in the pig isolated saphenous vein, a microvessel complex embedded in the medial/adventitial interface remains, from which robust angiogenesis occurs. Thus, even if the saphenous vein is stripped of its adventitia, the vein graft is capable of regenerating its own neo-vasa vasorum. We also suggested that risk factors, such as hyperhomocysteinemia, may impair this angiogenic repair, which in turn may contribute to vein graft failure associated with such risk factors. It is possible, too, that by retaining the vasa vasorum with the Souza method, reintegration of the vein graft microvasculature may be accelerated.

Retaining the adventitial/fat layer around the saphenous vein may elicit other beneficial effects, including a physical impact on intragraft hemodynamic forces or the release of substances that inhibit vascular smooth muscle cell replication. The adventitial/fat complex may also act as a "biosheath" that may elicit similar effects seen with synthetic sheaths in experimental animal models.² Interestingly, removal of the adventitia does not augment neointima formation or vein graft thickening in the pig (unpublished observations). However, there is barely any fat surrounding the saphenous vein in the pig, consolidating that it may be fat that is key to the positive effects underlying the Souza method.

Further studies are required to elucidate the mechanisms underlying the combined effect of adventitial and fat tissue surrounding saphenous veins on graft thickening.

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doi:10.1016/j.jtcvs.2007.05.011

Conservative management of postintubation tracheobronchial ruptures

To the Editor:

We read with interest the article by Griffo and colleagues¹ regarding the conservative management of a postintubation tracheobronchial rupture (TBR), and we congratulate the authors for their results. This favorable outcome is not surprising and is in agreement with the evidence accumulated in recent literature.² Between June 1993 and July 2005, 30 patients presenting iatrogenic TBR, 16 secondary to intubations for elective surgery and 14 secondary to intubations for medical emergencies, were treated at our institution.³ The mean TBR length was 4.5 ± 1.5 cm (range, 1–7.5 cm). Fifteen patients, not requiring mechanical ventilation, underwent simple conservative management. In 3 cases, transient noninvasive ventilatory support was used to treat a mild respiratory distress correlated to a frank anterior intraluminal protrusion of the esophagus through full-thickness rup-

ture. All of these lesions healed without sequelae. Thirteen patients on mechanical ventilation were considered at high surgical risk. To ensure ventilation, tracheal tears were bridged as salvage therapy. In 5 patients, TBR bridging was attempted by simply advancing the endotracheal tube distal to the injury; in 6 other patients, presenting a TBR too close to the carina, TBR bridging was attempted by separating bilateral mainstem endobronchial intubation. Two cases of aseptic mediastinal collection were found by follow-up chest computed tomography and were drained by simple cervical approach. Nine of 13 ventilated patients (69%) who were treated conservatively completely recovered. Two patients on mechanical ventilation, in whom the bridging was technically not feasible, underwent surgical repair and died. Our results confirm the effectiveness of conservative management in iatrogenic TBR. In patients not requiring mechanical ventilation, conservative management includes noninvasive ventilatory support. The outcome was independent of the tracheobronchial length^{2,3}; pneumothorax, extensive subcutaneous emphysema, and mediastinal collections were drained as needed. So, we disagree with the author's conclusions: "Treatment can be conservative or aggressive depending on the extension of the lesion. . . . Usually, conservative treatment is preferred for stable patients with small uncomplicated tracheobronchial lesions. . . . Surgical treatment (through a standard thoracotomy or transcervical approach) is reserved for patients requiring mechanical ventilatory support. . . ." Surgery in critically patients involves a high risk, with a reported mortality as high as 71.4%.⁴ Such a high mortality for the repair of TBR in critically ill patients receiving mechanical ventilation demands that alternatives to high-risk surgery be considered.

We recommend conservative nonoperative therapy as the best approach to postintubation TBR (1) in patients who are on spontaneous ventilation, (2) when extubation is scheduled within 24 hours from the time of diagnosis, or (3) for patients who will require continued ventilation to treat their underlying respiratory status. Surgical repair should be reserved for patients in whom bridging the lesion is technically not feasible or for patients with injuries diagnosed during thoracic surgery.

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doi:10.1016/j.jtcvs.2007.04.053

Reply to the Editor:

We thank Dr Conti and colleagues¹ for their constructive comments on our report² and the Editor for giving us the opportunity to reply.

We agree with Dr Conti and colleagues' remarks; in fact, in our experience with 41 cases of tracheobronchial rupture, we treated only 6 cases surgically (3 for iatrogenic lesions during thyroid and esophageal surgery and 3 for traumatic lesions [2 with stab wounds and 1 with electric saw wounds]). Our described case was a slightly different one. With this patient, we were presented with a very difficult and somewhat delicate situation, and we resorted to a successful semiconservative treatment, which is in agreement with Conti and colleagues' remarks. Moreover in our report, even if we say "... conservative treatment is preferred for stable patients with small uncomplicated tracheobronchial lesions..." we also add that conservative treatment has been successfully described for bigger lesions. We are well aware of Conti and colleagues' experience,³ and we congratulate them, but unfortunately, the *Journal* allows only 5 references for case reports.

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doi:10.1016/j.jtcvs.2007.05.016

A segmentectomy for stage IA non-small cell lung cancer should be associated with surgical margin cytology findings and a frozen section histologic examination of lymph nodes

To the Editor:

I enjoyed reading the article written by Nomori and colleagues.¹ Their strategy for performing a segmentectomy with little risk of local relapse included the following features: (1) Hilar and mediastinal lymph nodes are dissected as much as possible, (2) the lobectomy must be completed when metastasized cancer is found in any of the dissected lymph nodes, and (3) in nested cases with a sentinel node, frozen section histologic examinations can be limited to the sentinel lymph node.

I agree with their strategy regarding local/regional recurrence in the lymphatics. However, the crucial concept of possible local relapse is not addressed, because a relapse of non-small cell lung cancer can occur at the surgical margin, which is independent of the lymphatic system.

When complete excision has been accomplished with compromised patients with clinical stage I non-small cell lung cancer, surgical margin recurrence has been observed in approximately half of the cases with malignant cytologic results, even when the margin showed a malignant negative histology.^{2,3} Thus, a cytologic malignant positive margin in the residual lung after a segmentectomy has the potential of surgical margin relapse. On the basis of my experience with complete excisions for compromised patients, the segmentectomy should be accompanied by a surgical margin cytologic examination and frozen section histology findings of the dissected hilar and mediastinal lymph node.

I have performed 22 segmentectomies without lymph node metastasis, in which there were 2 cases (9%) with malignant

positive cytology results at the surgical margin, for which completion lobectomies were performed. If those residual lobes had been left, surgical margin relapse may have occurred, even though there was no metastasized lymph node. Thus, I recommend performing a surgical margin cytologic examination in patients who undergo a segmentectomy and in cases of excision, because malignant cytology findings have been documented in cases with malignant negative histology findings.^{4,5}

Here are some questions for Dr Nomori and colleagues: What was the status of the margin of the lung that underwent a segmentectomy? Was a margin cytologic examination carried out? Also, what options do you propose if the margin cytology were shown to be malignant positive by a cytologic method?

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doi:10.1016/j.jtcvs.2007.03.055

Reply to the Editor:

We appreciate the comments by Sawabata. Sawabata and colleagues previously reported