believe the decline in the phospholipid/protein ratio seen in infants receiving bypass is indicative of lung injury. Finally, by stating that our data support the findings of McGowan and colleagues,\(^3\) we did not mean to imply that we found the same alteration in surfactant composition that was shown in this investigation. We were able to demonstrate a quantitative difference in surfactant, whereas McGowan and associates showed a qualitative difference, albeit in a different patient population.

**REFERENCES**


**Complete resection: Yes or no?**

*To the Editor:*

We read with great interest the article titled “Lobe-Specific Extent of Systematic Lymph Node Dissection for Non–Small Cell Lung Carcinomas According to a Retrospective Study of Metastasis and Prognosis” by Asamura and associates (J Thorac Cardiovasc Surg 1999;117:1025-11). The authors mentioned that subcarinal lymphadenectomy is not always necessary for tumors of the right upper lobe and left upper segment. Their argument is based on the retrospective analysis of their data, which consists of more than 166 cases. However, we question whether these resections can be classified as “complete resection.”

The definition of “complete resection” in the management of non–small cell lung cancer is not uniform in the literature. The definition provided by Mountain\(^1\) has been widely accepted in the Western world. In this definition, resection can be considered complete when the highest station sampled at thoracotomy is tumor free and extranodal disease is not detected in any of the mediastinal nodes. According to the definition provided by the National Cancer Center in Japan,\(^2\) all the mediastinal stations where tumor can spread should be removed. Thus more radical node dissection is required to perform a complete resection according to the Japanese definition.

Surgical resection can be beneficial only if the resection is complete. A clearly defined “complete resection” is mandatory, not only as a selection criterion for surgery but also for the postoperative classification of the patients. Otherwise, it is impossible to detect the positive effect of surgery in the different stages of the disease. We wonder whether Asamura and associates would consider any resection to be complete without examining all mediastinal nodes.

Asamura and associates argued that subcarinal lymph node dissection is not necessary for tumors localized to the right upper lobe and upper division of the left upper segment because single-station metastases to station 7 are rare. We wonder how the authors can detect multiple-station metastases, 37% (20/54) of which occur on the right and 50% (17/34) on the left, without examining all mediastinal stations. They reported that tumor spread to station 7 was detected in 12% to 13% of their patients. We think that regardless of multiple-station or single-station disease, this is too high a percentage to be neglected. Thus, despite their conclusion, their data indicate that subcarinal lymphadenectomy should be performed, which is a relatively easy procedure during thoracotomy.

A new definition for “complete resection” is urgently needed. We agree with the authors that re-evaluation of the mediastinal dissection on the basis of the data collected may be necessary, but the concept of lung resection for non–small cell lung cancer should not be changed without the definition of complete resection being revised. We argue that lung resection for non–small cell lung cancer without systematic lymph node dissection should not be performed until a new definition is provided.

**REFERENCES**


**Reply to the Editor:**

We appreciate the interest expressed by Kutlu, Sayar, and Metin in our consideration of the lobe-specific extent of systematic lymph node dissection for lung cancer.\(^1\) This has been a point of discussion among thoracic surgeons for a couple of decades.

Their question can be summarized as follows: Can a pulmonary resection be regarded as a “complete resection” if some mediastinal nodes are not examined? Indeed, we have
shown that subcarinal dissection is not always necessary for tumors in the right upper lobe and the left upper segment because of very low prevalence of metastasis in subcarinal nodes for these tumors. However, is such a resection, even if the margin is completely free of tumor, really an “incomplete resection”? I would like to address 2 issues regarding their question. First, the proper extent of lymph node dissection and the definition of complete (incomplete as well) resection in lung cancer should be discussed separately. The proper extent of lymph node dissection should be based on the prevalence of metastasis in each mediastinal site and the patient’s prognosis. Systematic lymph node dissection is intended for local control and subsequent improvement of survival, and it should be technically distinguished from simple lymph node sampling. In this sense, we consider that subcarinal dissection does not contribute to better local control when the superior mediastinum is free of disease (negative), and it is a rather time-consuming procedure in upper lobe tumors according to lobe-specific data. We think that the information gained from the superior mediastinal node can be a good surrogate for the subcarinal node.

Second, the definition of “complete (incomplete) resection” in lung cancer has not been uniform. Indeed, many investigators advocate that macroscopic or microscopic residual disease at the resection margin and the presence of tumor in the highest mediastinal node sampled at thoracotomy be considered as evidence of incomplete tumor resection. Others include perinodal extension as well. Since the subcarinal node is not the highest station in the mediastinum (it is station 1 by Japanese definition and station 2 by United States definition), its positivity for tumor does not affect the judgment of “complete or incomplete resection.” Here I agree that the definition of “complete (incomplete) resection” itself is problematic, as pointed out by Kutlu, Sayar, and Metin. The data from the Canadian Lung Oncology Group demonstrated a very limited prognostic significance of these definitions. That seems reasonable considering the tumor’s nature of readiness to spread, such as in skip metastasis and occult distant metastasis in lung cancer. I believe that the definition of “complete resection” should be simply a resection without any evidence of residual macroscopic or microscopic tumor, regardless of nodal status.

I agree with Kutlu, Sayar, and Metin that the definition of complete resection in lung cancer requires revision. However, the strategy for systematic lymph node dissection should be better local control.

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REFERENCES

To the Editor:
I read with great interest the article by Banbury and associates, titled “Esophagectomy With Gastric Reconstruction for Achalasia” (J Thorac Cardiovasc Surg 1999;117:1077-85).

In our department, we have been performing esophagectomy with gastric reconstruction for the treatment of megaesophagus due to Chagas disease since 1956. As proposed by Câmara-Lopes and Ferreira-Santos, the operation was performed in 2 stages, with the stomach brought up by the retrosternal route. Since 1961, Ruy E. Ferreira-Santos and I have been performing a 1-stage operation, leaving the stomach in the bed of the resected esophagus. Because thoracotomy, laparotomy, and cervicotomy were required at the time, I devised a rotary surgical table that permitted easy and rapid changes in decubitus, making it possible to always operate in the best position. Starting in 1985, whenever possible, we began to perform the operation without thoracotomy.

Because of the denervation occurring in Chagas disease, an association of megaesophagus with megacolon was found in 76% of cases, and this is the reason that the colon was never used. However, the stomach can also have varied degrees of denervation and dilatation, which worsened by surgery. This was probably the cause of the stasis and regurgitation observed in a few cases in our series. This complication was so severe in 1 patient that 3 years later he regurgitated everything he ate, with severe impairment of his nutritional status. To solve this difficult problem, we successfully performed a Roux-en-Y transdiaphragmatic gastrojejunal shunt. Perhaps esophagectomy with gastric reconstruction should not be performed in patients with a greatly dilated stomach. Like the authors, we believe that pyloroplasty is imperative to avoid gastric stasis and regurgitation.

There was also a frequent association of advanced chagasic megaesophagus with carcinoma (3%), ulcers, and leukoplakic lesions. These findings support the indication of esophagectomy. Another frequent postoperative complication in our cases (12%), not reported by the authors, is diarrhea of varying intensity, which tends to disappear with time. In some patients, diarrhea was accompanied by lower limb edema, suggesting a state of nutritional deficiency. However,