GENERAL THORACIC SURGERY

EDITORIAL ON "OCCULT CERVICAL NODAL METASTASES IN ESOPHAGEAL CANCER: PRELIMINARY RESULTS OF THREE-FIELD LYMPHADENECTOMY"

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In the following report, Altorki and Skinner have documented the presence of unsuspected cervical lymph node metastases in one third (10/30) of their patients undergoing radical en bloc esophagectomy for presumably "curable" carcinoma of the thoracic esophagus. Cervical lymph node metastases occurred in four (26%) of the 15 patients with adenocarcinoma and in six (40%) of the 15 with squamous cell carcinoma. Cervical lymph nodes were involved in these patients just as often as mediastinal nodes and irrespective of the tumor site or depth of penetration of the esophageal wall. Even in patients with metastasis to only one lymph node, traditionally regarded as a good prognostic sign, the cervical region was as likely to be involved as the mediastinal or perigastric regions. This series is small, but the data are sobering and certainly fuel the current flames of controversy surrounding the optimal therapy for esophageal cancer.

Historically, Japanese surgeons have carried the mantra of extended lymphadenectomy in the treatment of esophageal carcinoma, claiming that resection of lymph nodes in these patients is therapeutic. The majority of Western esophageal surgeons, on the other hand, have for the most part removed readily accessible regional lymph nodes at the time of esophagectomy for the purpose of staging rather than with any expectation of improving survival. A number of Japanese surgeons, a few European surgeons, and now Altorki and Skinner have reported cervical lymph node metastases to be present in 20% to 30% of patients undergoing three-field lymphadenectomy (the traditional mediastinal and upper abdominal lymph

node dissections but now with the addition of cervical lymph node dissection). Recent reports from Japan on three-field lymphadenectomy have suggested survival benefit from such an aggressive surgical approach.

The majority of Western surgeons, however, and I am one of them, have difficulty "swallowing" the radical surgical approach to esophageal carcinoma. Few of us have been able to duplicate the reported survival statistics of patients undergoing esophagectomy for carcinoma in Japan, and a possible biologic difference in these tumors in our respective countries has been suggested as one explanation. The vast majority of patients with esophageal carcinoma whom we treat are surgically incurable by virtue of distant metastatic disease or local tumor invasion when they first arrive for treatment. To approach a tumor, which for the most part is already systemic, with a local treatment modality such as surgery with any reasonable expectation of achieving long-term survival or cure is a noble but unrealistic undertaking. To justify the potential added morbidity of an extensive mediastinal and now cervical dissection in these patients stretches the limits of the imagination.

It is a curious human characteristic that like the three blind men feeling different parts of the elephant, each of us interprets data presented to us in the framework of our own reference system. For Altorki and Skinner, the finding of unsuspected cervical lymph node metastases translates to a need to be more aggressive in resecting lymph nodes at the time of radical esophagectomy for carcinoma. For me, the data presented in this report only further reinforce my conviction that systemic disease in these patients is seldom cured with a scalpel alone. Consequently, I continue to champion a transhiatal esophagectomy and cervical esophagogastrostomy whenever possible in patients with esophageal carcinoma. The University of Michigan Thoracic Surgery Service has performed more than 1000 of these operations, and the technique has been refined to the point that operative time averages 4 hours, mortality is in the range of 1%, no

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blood transfusions are given, no postoperative intensive care is required, and hospitalization is 7 to 10 days. As technical modifications have lowered the cervical anastomotic leak rate to below 5%, no other therapy currently available for the treatment of esophageal carcinoma can restore comfortable swallowing as efficiently.

Compelling questions about the wisdom of radical esophagectomy and three-field lymphadenectomy need to be answered before this approach can be accepted more widely. Are survival rates with such an extensive operation actually improved enough to justify the potential increased morbidity? Stripping tracheobronchial and mediastinal lymphatics may result in reflex bronchorrhea and the need for prolonged postoperative mechanical ventilation. Dissection of lymph nodes around the recurrent laryngeal nerves may produce not only hoarseness if the nerve is injured but also life-threatening aspiration owing to impaired swallowing from resulting neuromotor dysfunction of the upper esophageal sphincter. Does approaching the left recurrent laryngeal nerve lymph nodes from the right side of the chest provide adequate exposure, or should a partial sternal split be performed to facilitate the removal of high left paraesophageal lymph nodes? And inevitable questions relevant to the current managed care environment arise from this report as well. Are two teams of surgeons required for the simultaneous cervical and abdominal phases of the operation (that translates into increased physician charges)? By how much time is the operation increased by the cervical node dissection (increased use of operating room resources)? Don't the longer operative

and anesthetic times, more extensive dissection, increased postoperative bronchorrhea, and the need for more mechanical ventilation in the intensive care setting translate to greater cost?

The proponents of radical esophagectomy for esophageal carcinoma must explain why mediastinal lymph node metastases, and certainly extrathoracic nodal spread (e.g., to supraclavicular lymph nodes), are almost uniformly regarded as an indicator of incurability and therefore inoperability for the other major chest malignancy—lung cancer—but not for esophageal carcinoma. And where does the lymph node “chase” end? If the preoperative computed tomographic scan reveals retroperitoneal paraaortic lymph node adenopathy that is confirmed as being due to metastatic disease with a fine needle aspiration, should the patient be deemed unsuitable for surgical treatment by virtue of having stage IV disease, or should a retroperitoneal lymph node dissection be added to the operation? The data presented by Altorki and Skinner are indeed sobering. If cervical nodal metastases are regarded as indicative as extrathoracic disease, patients with such metastases have stage IV tumors, which are typically associated with a survival of 6 months. If one third of all patients with esophageal carcinoma have cervical lymph node metastases, should routine cervical lymph node dissection become a standard part of the preoperative evaluation (reminiscent of scalene node biopsy for lung cancer) and those patients with metastases be excluded from operation? Prospective well-controlled trials are needed to answer the many questions stimulated by this provocative report.