Routine evaluation for aspiration after thoracotomy for pulmonary resection.


Reviewer:
Mark A. Chaney, M.D.
University of Chicago

Abstract Excerpt:
The purpose of this study was to evaluate the role of a routine protocol for evaluation of oropharyngeal aspiration after thoracotomy for pulmonary resection. Demographic, operative, and outcomes data were collected prospectively for consecutive patients undergoing thoracotomy for pulmonary resection starting in April 2005. Starting on postoperative day one, patients underwent evaluation by a licensed speech therapist before oral intake. Patients failing clinical examination were referred for radiographic evaluation. Diets were advanced on the basis of results from both clinical and radiographic evaluation. 140 patients were prospectively evaluated during this period. 32 patients (22.9%) failed initial clinical swallowing evaluation and were referred for dynamic videofluoroscopic esophagram. 25 patients (17.8%) had evidence of potential oropharyngeal aspiration on videofluoroscopic esophagram. Only 1 patient (0.7%) aspirated after a negative clinical evaluation. Univariate risk factor analysis revealed that patients demonstrating aspiration were older (67.7 ± 1.6 years versus 64.4 ± 1.1 years) and had a higher incidence of head and neck malignancy (p < 0.001). Patients without radiographic aspiration had a shorter median hospital stay when compared with those who did (6 days versus 5 days). These investigators conclude that aspiration after thoracotomy for pulmonary resection may affect nearly 20% of patients and is likely underrepresented in the surgical literature. The institution of a protocol to evaluate risk of aspiration can characterize patients at high risk and lead to an increased awareness of the potential for aspiration after thoracotomy.

Reviewer’s Comments:
Aspiration is a common and potentially fatal complication often encountered in certain hospitalized patient populations. In 2006, the American College of Chest Physicians issued a position statement advocating a multidisciplinary approach with early evaluation by a speech pathologist in order to improve outcome in patients at high risk for aspiration (Chest 129:154S-168S, 2006). Aspiration following pulmonary resection may potentially contribute to substantial morbidity yet has not yet been comprehensively studied. These investigators designed a clinical protocol designed to detect patients at risk for aspiration and better characterize the true incidence and risk factors of aspiration following thoracotomy for pulmonary resection, highlighting a postoperative complication that is rarely mentioned. They demonstrated that by careful screening, a surprisingly high percentage (almost 20%) of patients were identified who aspirate following pulmonary resection. As the Invited Commentary associated with this article states, an important question is whether or not identification of these patients before aspiration pneumonia occurs will improve outcomes. In this series, the investigators could not prove any difference, except the mean length of stay was one day longer in patients who were identified at risk for aspiration. However, because the cost for speech pathology evaluation is low compared with the much larger expense of treating aspiration pneumonia, it would seem reasonable to contemplate screening patients for aspiration. Prior to development of randomized clinical trials to prove efficacy of the technique, common sense dictates that screening patients for aspiration may help reduce the risk for certain patients undergoing thoracic surgical operations.