Esophageal cancer

**Surgeon volume is the most important predictor of outcome in esophagectomy**


PURPOSE: The influence of hospital and surgeon volume on survival after esophageal cancer surgery deserves clarification, particularly the prognosis after the early postoperative period. The interaction between hospital and surgeon volume, and the influence of known prognostic factors need to be taken into account. METHODS: A nationwide Swedish population-based cohort study of 1,335 patients with esophageal cancer who underwent esophageal resection in 1987 to 2005, with follow-up for survival until February 2011, was conducted. The associations between annual hospital volume, annual surgeon volume, and cumulative surgeon volume and risk of mortality were calculated with multivariable parametric survival analysis, providing hazard ratios (HRs) with 95% CIs. HRs were mutually adjusted for the surgery volume variables and further adjusted for the prognostic factors age, sex, comorbidity, calendar period, tumor stage, tumor histology, and neoadjuvant therapy. RESULTS: There was no independent association between annual hospital volume and overall survival, and hospital volume was not associated with short-term mortality after adjustment for hospital clustering effects. A combination of higher annual and cumulative surgeon volume reduced the mortality occurring at least 3 months after surgery (P trend < .01); the HR was 0.78 (95% CI, 0.65 to 0.92) comparing surgeons with both annual and cumulative volume above the median with those below the median. These results remained when hospital and surgeon clustering were taken into account. CONCLUSION: Because surgeon volume rather than hospital volume independently influences the prognosis after esophageal cancer surgery, centralization of this surgery to fewer surgeons seems warranted.

Editor’s commentary: this is a provocative study of outcomes following esophagectomy from a nationwide registry in Sweden. After controlling for most of the important known prognostic features, the authors show that it is surgeon experience (whether total experience or yearly volume) that has the most impact on outcomes. It is intuitive to assume that surgeon volume is roughly predictive of outcomes for surgical procedures, but this is not always the case. CABG surgery is the most studied surgical procedure and it is now accepted that hospital volume is the most important predictor of outcome following CABG, and not surgeon volume. Esophagectomy is a rare procedure relative to CABG, and it is easier to believe that fewer surgeons obtain the experience necessary to become proficient. Having performed both procedures during the course of my career, I can attest to the observation that esophagectomy is a procedure that requires both technical expertise, as well as, clinical acumen to recognize and manage the various complications that can be expected following resection of the esophagus.
Editor’s commentary: This is the kind of article that dedicated thoracic surgical oncologists, like me, love to see: we do it better than everyone else. This is a retrospective review of the Nationwide Inpatient Sample that looked at the specialty of surgeon in esophagectomy relative to outcome. Unfortunately, the information pertaining to specialty of the operating surgeon was not available in a huge proportion of the sample and pretty much eats up the study’s credibility. Nevertheless, it is fascinating to learn that general surgeons do the majority of esophagectomies in this country, but are not as proficient in “rescue” from complications. This rings true in my experience since I have been called upon in many instances in my career to bail out general surgeons who do not have the experience, skill or training to deal with some of the particularly difficult complications following esophagectomy.

Lung cancer screening can be made more accurate by compiling more pretest information...

Editor’s commentary: I enjoyed this article mainly because it was virtually impossible to read or to understand. The authors proved that if you spent more time to identify additional risk factors to improve the pretest probability of lung cancer, then you will find more lung cancers after LDCT scanning. However, what lung cancer screening needs are modifications that improve efficiency, not add further time, effort, and cost.
**Interesting case presentation:**
salvage esophagectomy

**Introduction** This month’s review features a case of salvage esophagectomy to illustrate the potential utility of this procedure. Over the last several months there have been several publications in the thoracic surgical oncology literature that have proven the benefits of salvage esophagectomy in selected patients. Salvage esophagectomy is considered in patients definitively treated with chemoradiation who either (1) recur following endoscopic and PET complete response or (2) in patients whose disease persists after treatment. The patients need to be able to withstand the procedure medically, and have no evidence of disease elsewhere. Each of these reports have emphasized that this is a procedure to be performed only in experienced centers.

A 72 year old WM patient was referred three months after definitive chemoradiation for a T3N0 distal esophageal adenocarcinoma. He achieved a complete response by PET scanning but surveillance EGD identified recurrent disease at the GE junction which was biopsied and proven to be adenocarcinoma.

He was referred for consideration for salvage esophagectomy. He was deemed an acceptable candidate and underwent Ivor-Lewis esophagectomy.

The gross specimen is seen at left and demonstrates an esophagogastrectomy specimen with the transected proximal esophageal margin to the left and the stapled gastric margin to the right. The en bloc celiac lymphadenectomy can be seen as the yellow mass of tissue in the middle of the lower margin of the specimen.

The lower photo shows the specimen opened and shows the area of the recurrent tumor at the GE junction. The smooth glistening surface to the left is the distal esophagus while the rugae of the stomach are visible to the right. The forceps demonstrate the recurrent tumor at the GE junction. Extensive treatment effect can be seen as well in the wall of the GE junction. Final pathology showed a focus of adenocarcinoma within a background of fibrosis and treatment effect. Margins were negative, as were 11 lymph nodes. The patient’s post-operative course was remarkable for atrial fibrillation, and the patient was discharged home on POD#10. He is swallowing normally and was progressed to a regular, several small meals diet.
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