

Esophageal Cancer

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Retrospective Study of Esophageal Cancer: A Small-Volume Single-Institution Experience for a 9-Year Period

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Background: Chemoradiation therapy (CR) with/without surgery (S) has been a standard therapeutic approach for patients with esophageal cancer. The outcomes of surgery at large centers dealing with a high volume of operations are known to be superior to those at small hospitals with fewer patients. This study was designed to address two questions: (1) Are survival results at our center comparable to those achieved in large clinical trials? (2) Is the benefit of surgery at a small-volume center comparable to that of published reports that included large numbers of surgical cases?

Methods: This is a retrospective review of our experience with 33 esophageal cancer patients who received therapy with curative intent from 1998 to 2006. Eight patients received surgery only (S); 11 received CR; 8 had CR+S; and 6 had radiation alone (R). Study Design I: Patient survival was compared with that in published large-scale studies. Study Design II: Outcome in patients receiving surgery in addition to chemoradiation was assessed to determine if patients undergoing surgery at a low-volume hospital derived additional benefits.

Results: Three-year survival rates in this study were 12.5%, 25%, and 18.2% for surgery alone (S), neoadjuvant chemoradiation followed by surgery (CR+S), and chemoradiation with no surgery (CR), respectively ($P = .4628$). Median survival durations were 14.5 months, 16.5 months, and 16 months, respectively. Rates of 3-year survival reported in the literature range from 6% to 34% with surgery alone and 17% to 36% with CR+S. Visser et al reported estimated 3-year survival rates of 29% or 23% in patients undergoing CR+S or surgery only, respectively, based on their own recalculation by adding up the gross number of patients from seven published trials. Our results fall within

the range of reported 3-year survival rates in both patient groups (ie, S and CR+S regimens). The 25% 3-year survival rate in patients undergoing CR+S in this study was slightly lower than the average 29% survival rate estimated by Visser et al. The published median survival durations vary widely, ie, 7 to 22 months (median, 18 months) for surgery only and 10 to 26 months (median, 17 months) for CR+S–treated patients. Median survival for CR+S (16.5 months) in this study approached that in the literature (17 months), whereas median survival in the surgery-alone patients was inferior compared with published data (14.5 vs. 18 months, respectively). Only two randomized studies have investigated the possible benefits of surgery when added to chemoradiation therapy; results showed no significant survival advantage, although local failure rates were decreased in one of the trials. Interestingly, our data showed slightly better 3-year survival with surgery as compared with CR, although no definite conclusion can be stated because of the small number of patients in this series.

Conclusion: Results of this retrospective review demonstrate that multimodality therapy for esophageal cancer can be achieved safely in small hospitals in the community setting. No significant survival difference was noted in patients receiving CR or CR+S ($P = .8781$). Furthermore, results attained with multimodality therapy at our center are similar to those reported from large study series that used more rigorous patient selection criteria and more specifically defined surgical procedures.

Reference:

Visser BC, Venook AP, Patti MG: Adjuvant and neoadjuvant therapy for esophageal cancer: a critical reappraisal. *Surg Oncol* 12(1): 1-7, 2003.