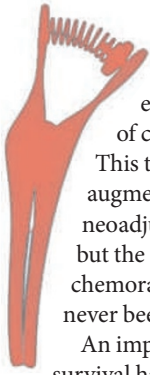


SURGERY

Delays may improve outcomes



In patients with resectable squamous cell carcinoma (SCC) of the esophagus, the standard of care is surgical resection.

This treatment has been augmented by the addition of neoadjuvant chemoradiotherapy, but the optimal time between chemoradiotherapy and surgery has never been identified.

An improvement in overall survival has not been demonstrated for the addition of neoadjuvant chemoradiotherapy to surgery in the phase II and III trials that have been conducted to date. However, subgroup analyses indicate that patients with a complete pathologic response (pCR) after chemoradiotherapy go on to have improved survival compared with patients with residual disease when surgery is undertaken. So the question that remains to be asked is: how can pCR be optimized in these patients and will it affect outcome?

Alberto Ruol and colleagues retrospectively analyzed data that they had prospectively collected in a clinical trial from 129 patients with esophageal SCC. These patients were all treated at the same center by senior surgeons and,

when they were divided into groups based on time between termination of chemoradiotherapy and surgery, they did not differ significantly according to sex, age, stage or other relevant parameters. The cohorts the patients were divided into consisted of group 1, ≤ 30 days; group 2, 31–60 days; and group 3, > 60 days between chemoradiotherapy and surgery.

The 5-year overall survival rate was not significantly different in the three groups; however, there was a trend towards improved survival with a longer delay between chemoradiotherapy and surgery (overall survival of 0%, 43.1% and 35.9% for groups 1, 2 and 3, respectively). The mean pCR rate was 31.1% and this was similar in all three groups.

When the patients were divided into two groups, using the median value as a cutoff (≤ 46 days and > 46 days) the trend in improved overall survival was maintained in the patients with delayed surgery, but was still not significant. Notably, the > 46 days cohort had significantly reduced prevalence of recurrence (25%) compared with the ≤ 46 days group (48.3%).

The establishment of an optimal time to surgery must balance several factors.

A longer delay may allow patients to recover from their chemoradiotherapy and also the tumor to regress via apoptosis and necrosis. However, a delay might also enable the tumor to recover and regrow and, therefore, reduce the impact of the initial therapy and likely also reduce chances of a pCR and survival. In addition, it is also thought that the effects of radiotherapy may worsen surgical outcomes owing to establishment of dense fibrosis.

Although the study conducted by Ruol and colleagues has its drawbacks, chiefly the retrospective nature of the analysis of the data, the authors stated that “patients operated on after a chemoradiotherapy–surgery interval of 6 to 13 weeks seem to have a reduced recurrence rate and a positive trend toward increased survival.” These data may assist surgeons in their decision making.

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Original article Ruol, A. *et al.* Interval between neoadjuvant chemoradiotherapy and surgery for squamous cell carcinoma of the thoracic esophagus: does delayed surgery have an impact on outcome? *Ann. Surg.* **252**, 788–796 (2010)

