

Perioperative chemoradiotherapy in esophageal squamous cell carcinoma

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A research team from China performed a randomized controlled study to evaluate the outcome of preoperative and postoperative chemoradiotherapy (CRT) in patients with local advanced thoracic esophageal squamous cell carcinoma (ESCC). The authors concluded that rational application of preoperative or postoperative CRT can provide a benefit in progression-free survival and overall survival in patients with locally advanced ESCC.

Esophagectomy is a standard treatment for resectable esophageal carcinoma but relatively few patients are cured. Combined neoadjuvant chemoradiotherapy (CRT) or adjuvant CRT with surgery may improve survival but there is concern about treatment morbidity and the best sequencing of CRT and surgery.

A research team from [China](#) used a prospective study, based on randomized controlled trial design, to compare preoperative and postoperative CRT to surgery alone in patients with resectable esophageal squamous cell [carcinoma](#) (ESCC). Their study will be published on April 7, 2010 in the [World Journal of Gastroenterology](#).

With median follow-up of 45 mo for all the enrolled patients, significant differences in the 1-, 3-, 5-, 10-year overall survival (OS) and progression-free survival (PFS) were detected among the the preoperative CRT, postoperative CRT and surgery groups, respectively. There were no significant differences in OS and PFS between the preoperative CRT and postoperative CRT arm. For the patients who had radical resection, significant differences in median PFS and median OS were detected among the 3 arms, but there were no significant differences in OS and PFS between the preoperative CRT and postoperative CRT arm. The local recurrence rates in the preoperative CRT, postoperative CRT group and S group were 11.3%, 14.1% and 35%, respectively. No significant differences were detected among the 3

groups when comparing complications but tended to be in favor of the postoperative CRT and S groups. Toxicities of CRT in the preoperative or postoperative CRT arms were mostly moderate, and could be quickly alleviated by adequate therapy.

Their results illustrated that long-term survival is maximized by the use of CRT followed by surgery for locally advanced esophageal cancer. However, patients are more likely to develop toxicity. As therapies improve, it is likely that the toxicity may be reduced and neoadjuvant CRT may provide a more marked benefit in esophageal cancer. Meanwhile, postoperative CRT can also be safely administered and considered as the multimodal treatment of choice for locally advanced ESCC.

More information: Lv J, Cao XF, Zhu B, Ji L, Tao L, Wang DD. Long-term efficacy of perioperative chemoradiotherapy on esophageal squamous cell carcinoma. *World J Gastroenterol* 2010; 16(13): 1649-1654
www.wjgnet.com/1007-9327/full/v16/i13/1649.htm

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