



Letter to the Editor: Definitive Chemoradiotherapy Versus Trimodality Therapy for Resectable Oesophageal Carcinoma: Meta-analyses and Systematic Review of Literature

Han-Yu Deng¹

Published online: 31 January 2019
© Société Internationale de Chirurgie 2019

Dear Editor,

I read with great interest the study by Voeten et al. [1] entitled “Definitive Chemoradiotherapy Versus Trimodality Therapy for Resectable Oesophageal Carcinoma: Meta-analyses and Systematic Review of Literature,” which has been recently published in the journal. They conducted a meta-analysis comparing the effects of definitive chemoradiotherapy (dCRT) with neoadjuvant chemoradiotherapy followed by surgery (nCRT + S) in treating resectable esophageal cancer. They found that for overall analysis nCRT + S yielded significantly better overall survival (OS) than dCRT but in the analysis of equal patient groups at baseline, there was no significant difference in survival between nCRT + S and dCRT, showing no clear survival benefit of nCRT + S over dCRT. Here comes the question again whether patients with resectable esophageal cancer could be spared surgery.

The result from Voeten’s study [1] that in equal patient groups at baseline a trend toward better survival was observed in nCRT + S compared to dCRT ($P = 0.11$) should be interpreted with cautions. First, it only included three studies with limited sample sizes. As a result, if given more cases, significant difference in survival might be observed between groups as the 5-year OS rate in nCRT + S was two times more than that in dCRT (38.7% vs. 18.3%, respectively). Second, significant heterogeneities were encountered during analysis ($I^2 = 88\%$). One of the major concerns for heterogeneities, I think, is disease stage, since some studies included patients with

early-stage esophageal cancer while others did not and some even included patients with stage IV disease. Therefore, it is important to compare the effects of dCRT with nCRT + S based on different disease stages. In our previous study, we showed that dCRT may result in worse OS and more recurrence compared to surgery for early-stage esophageal cancer patients [2]. A recent cohort study also confirmed the survival advantage of surgery over dCRT in clinical stage I/II diseases by propensity score-matched analysis [3]. Therefore, surgery should still remain to be the standard treatment for those early-stage patients, which is in accordance with the National Comprehensive Cancer Network guidelines for esophageal cancer [4]. Moreover, for locally advanced esophageal cancer, current guidelines suggest that nCRT + S should be the preferred therapeutic option while dCRT should be only recommended for patients who decline surgery. However, regarding the results from Voeten et al. [1] and previous studies [3, 5], more well-conducted randomized controlled studies exploring the actual role of dCRT in treating locally advanced esophageal cancer by directly comparing the effects of dCRT with nCRT + S should be encouraged. However, before such evidence is available, surgery should still play an important role in treating resectable esophageal cancer.

Compliance with ethical standards

Conflict of interest None declared.

✉ Han-Yu Deng
hanyudeng@stu.scu.edu.cn

¹ Lung Cancer Center/Department of Thoracic Surgery, West China Hospital, Sichuan University, No. 37 Guoxue Alley, Chengdu 610041, China

References

1. Voeten DM, den Bakker CM, Heineman DJ et al (2019) Definitive chemoradiotherapy versus trimodality therapy for resectable oesophageal carcinoma: meta-analyses and systematic review of

- literature. *World J Surg*. <https://doi.org/10.1007/s00268-018-04901-z>
2. Deng HY, Li G, Luo J et al (2018) Can definitive chemoradiotherapy be an alternative to surgery for early-stage oesophageal cancer? *Interact Cardiovasc Thorac Surg* 28:37–40
 3. Wang BY, Hung WH, Wu SC et al (2018) Comparison between esophagectomy and definitive chemoradiotherapy in patients with esophageal cancer. *Ann Thorac Surg*. <https://doi.org/10.1016/j.athoracsur.2018.11.036>
 4. NCCN Guidelines for Treatment of Cancer by Site: Esophageal and Esophagogastric Junction Cancers. https://www.nccn.org/professionals/physician_gls/pdf/esophageal.pdf. Accessed 5 Jan 2018
 5. Ma MW, Gao XS, Gu XB et al (2018) The role of definitive chemoradiotherapy versus surgery as initial treatments for potentially resectable esophageal carcinoma *World journal of surgical oncology* 16:172

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.