Comparison of efficacy and safety of first-line systemic therapy combined with or without radiotherapy for stage IVB esophageal squamous cell carcinoma: a propensity score matching analysis

Biqi Chen, Wenyan Chen, Chen Yang, Qi Cheng, Xingyuan Cheng, Mian Xi, Qiaoqiao Li*, Baoping Chen*
Department of Radiation Oncology, Sun Yat-sen University Cancer Center
State Key Laboratory of Oncology in South China
Collaborative Innovation Center of Cancer Medicine
Guangdong Esophageal Cancer Research Institute, Guangzhou, Guangdong 510060, P. R. China

Background
The role of additional radiotherapy (RT) to systemic therapy including chemotherapy plus anti-PD-1 antibody for metastatic esophageal squamous cell carcinoma (ESCC) is not clear. This analysis aims to compare the survival and safety profile of stage IVB ESCC treated by first-line systemic therapy combined with or without radiotherapy.

Methods
We retrospectively enrolled 155 patients with metastatic ESCC who were treated with first-line systemic therapy including chemotherapy plus anti-PD-1 antibody combined with or without radiotherapy of primary tumor. Propensity score matching (PSM) was performed to minimize the effects of confounding factors. Kaplan-Meier analysis and the log-rank test were conducted to analyze the survival. Prognostic factors were identified by univariate and multivariate cox regression analyses.

Conclusion
Radiotherapy combined with first-line systemic therapy including chemotherapy plus anti-PD1 antibody has superior survival and tolerable toxicities compared to systemic therapy alone for stage IVB ESCC.

Future directions
A prospective phase II clinical trial (NCT05512520) is conducted, comparing the efficacy of systemic therapy including chemotherapy and anti-PD1 antibody with or without RT for stage IVB ESCC. The results of this trial may provide further insights into the optimal treatment strategy for these patients.

Contact us: chenbq@sysucc.org.cn
liqq@sysucc.org.cn