Editorial

Adenocarcinoma of esophagogastric junction

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Submitted Jul 03, 2014. Accepted for publication Jul 07, 2014.
doi: 10.3978/j.issn.1000-9604.2014.07.03
View this article at: http://dx.doi.org/10.3978/j.issn.1000-9604.2014.07.03

To date, there has been a dramatic increase in the incidence of adenocarcinomas of the esophagogastric junction (AEG) worldwide. The classification of AEG, defined by Siewert and Stein, was approved at the second International Gastric Cancer Congress in Munich in April 1997. In accordance with the anatomic cardia, EGJC can be divided into three subtypes: type I, adenocarcinoma of the distal esophagus with the center located within 1 cm above and 5 cm above the anatomic esophagogastric junction (EGJ); type II, true carcinoma of the cardia with the tumor center within 1 cm above and 2 cm below the EGJ; type III, subcardial carcinoma with the tumor center between 2 and 5 cm below EGJ, which infiltrates the EGJ and distal esophagus from below (1). In the Siewert classification, type I was usually classified with the esophageal scheme, and types II and III were classified with the gastric carcinoma scheme (2-4). Compared to the Western countries, type II and III cancers are more frequent than type I in Eastern countries (5).

In view of its unique features in terms of epidemiology, genetics, and prognosis, AEG has been regarded as a distinct disease. At present, UICC the seventh edition TNM classification included the meticulous classification of AEG. A tumor with an epicenter within 5 cm of the EGJ and extension into the esophagus, is classified and staged according to the esophageal scheme. Tumors with an epicenter greater than 5 cm from the EGJ or those within 5 cm of the EGJ without extension into the esophagus were staged using the gastric carcinoma scheme (6). However, surgeons often treat AEG as distal esophagus or proximal gastric cancer in China.

According to the current TNM classification of AEG, type I does not change staging scheme while some type II and III AEG change from the gastric to the esophageal scheme. Actually, some tumors which extend into the esophagus are staged according to the esophageal scheme while they actually originate from the gastric mucosa. As we know, AEG tumors have different biological properties compared with genuine gastric and genuine esophageal cancers (7). The lower frequency of type I AEG in Eastern countries may be explained by a lower prevalence of gastroesophageal reflux disease, a lower distribution of obese people, and a higher rate of Helicobacter pylori infection (8). The 0% 5-year survival rate for type I patients was mainly due to most of the data being collected from stage III patients.

Generally, the adenocarcinoma incidence of the AEG has obviously increased in recent years. The prognosis of patients with AEG has not been improved, because of the result of major patients being diagnosed at an advanced stage. Total or proximal gastrectomy is recommended for Type II or Type III AEG, and the gastric tube reconstruction is recommended to reduce the reflux esophagitis (9). Although the 7th edition and UICC staging system first harmonizes cancer staging across the EGJ, the optimal extent of lymph node dissection is still controversial. D2 lymphadenectomy are usually performed in Eastern countries than in Western countries, which can lead the patients to receive more extensive lymphadenectomies (10). The UICC staging manual and many researches recommend 12 lymph nodes as the appropriate baseline for quality of lymphadenectomy in order to guarantee the survival benefits (11). AEG is usually larger in size, which is more likely to give rise to infiltration of deep stomach walls, lymph node metastasis, hematogenous metastasis, and early recurrence after surgery (12).

The esophagus and stomach have different anatomical

and histological structure, which may result in the controversy of the AEG staging. It is basically accepted that histological grade and vascular invasion are independent factors for predicting the tumor recurrence after curative resection for AEG. It is well known that time of recurrence after surgery is a key factor that affects survival. The prognosis of AEG patients with late recurrence is better than those with early recurrence (13).

Many biomarkers were reported to be potentially associated with canceration of gastric cancer. However, only HER2 gene was demonstrated to be promising target of anti-cancer in gastric cancer worldwide. A recent phase III randomized study (ToGA) revealed that combination treatment with trastuzumab and chemotherapy significantly improved survival in patients with advanced GC or GEJ cancer with HER2 overexpression (14). HER2-positivity varied by tumor site, with higher rates of HER2-positivity in GEJ adenocarcinoma than in stomach cancer (15).

Acknowledgements

Disclosure: The authors declare no conflict of interest.

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Cite this article as: Deng JY, Liang H. Adenocarcinoma of esophagogastric junction. Chin J Cancer Res 2014;26(4):362-363. doi: 10.3978/j.issn.1000-9604.2014.07.03

