The Siewert Lesson for Adenocarcinomas of the Esophagogastric Junction: A Plea for an Order in a Complex Disease

Adenocarcinomas of the esophagogastric (AEG) junction show an alarming increase in incidence over the last decades in Western industrialized countries. This special volume with contributions from dedicated individuals and friends in the field tries to summarize our current understanding of the etiology, pathogenesis, classification, clinical staging, and state-of-the-art treatment of this modern plague.

In 1987, JR Siewert, Emeritus Professor and Chairman of the Department of Surgery (Fig.) at the Technische Universität München, Germany, inaugurated a therapeutically relevant classification of AEG which is used by many experts and recommended by the International Society for Diseases of the Esophagus and International Gastric Cancer Association. As St. Thomas of Aquino wrote in his Summa contra Gentiles (Book I, Chap. 1): “Those ones have to be called wise who put the things into the right order” (author’s translation). The “Siewert Classification” is purely based on the anatomic localization of the tumor center, which can be defined by endoscopy using the proximal end of the longitudinal gastric mucosa folds as a pragmatic reference for the endoscopic cardia. AEG include all tumors 5 cm proximal (+5 cm) and distal (−5 cm) of the endoscopic cardia (point zero). An adenocarcinoma of the distal esophagus (>1 to +5 cm), which usually arises from an area of specialized intestinal metaplasia (Barrett’s esophagus) is classified as a type I cancer. A type II cancer is a true carcinoma of the cardia (+1 to −2 cm) arising at the esophagogastric junction, whereas a type III cancer (−2 to −5 cm) is a subcardial gastric carcinoma that infiltrates the esophagogastric junction or the distal esophagus from below.

It is noteworthy to mention that the new seventh UICC/AJCC TNM Classification, effective since January 2010, classifies AEG as one group of cancers and finally eliminates meanders like staging regional lymph node metastases at the celiac trunk for Barrett’s cancer as systemic metastases (M1a). Even more important is that the new UICC classification of AEG neither eliminates the Siewert classification nor intends to suggest a change in the surgical approach to treat AEG.

For Siewert type I cancers, the standard approach is a transthoracic en bloc esophagectomy with a two-field lymphadenectomy and for the majority of AEG type II and
especially III, a transhiatally extended (i.e., distal esophageal resection) gastrectomy with lymphadenectomy of the lower mediastinum and a systematic abdominal D2-lymphadenectomy is adequate. However, surgeons dealing with type II and III cancers must be prepared to extend a planned transhiatally extended gastrectomy into a transhiatal or transthoracic esophagectomy in case of a positive resection margin at frozen section or if the situation clearly demands an esophagectomy or even esophagogastrectomy.

Local tumor control is still the key to survival and can be achieved by an armada of stage-dependent techniques in experienced centers including endoscopic mucosal resections and limited surgical resections for early cancers. For locally advanced tumors, multimodality therapy options are necessary treatment extensions not competing with, but rather amplifying surgical resections.

As a consequence of differentiated diagnostic and therapeutic tools, emerging quality issues involving all aspects of AEG treatment can no longer be neglected, and these patients have to be treated in specialized centers.

Recent developments from molecular pathogenesis to molecular response prediction and early metabolic response evaluation by PET-CT in neoadjuvant treatment protocols as well as sentinel node technology and micrometastases complete our current scientific understanding and efforts in basic and translational research to combat a frequently deadly disease.

We have tried hard to summarize the major aspects of our current understanding of the etiology, pathogenesis, diagnosis, and treatment of a complex disease. At the end, we all should not forget Sepp Herberger’s (Coach of the German Football World Champion Team 1954) words: “After the game is before the game.”

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Fig. JR Siewert, Emeritus Professor and Chairman of the Department of Surgery at the Technische Universität, Munich, Germany
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