Definition of Real Esophago-Gastric Junction

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Abstract

An increase in the incidence of esophageal adenocarcinoma and gastric cardia cancer has been reported in Western countries. However, the lack of universally accepted criteria for the esophago-gastric junction (EGJ) continues to result clinically in confusion in diagnosis of gastric cardia cancer, esophageal adenocarcinoma and Barrett’s esophagus (BE), not only in Japan but also in Western countries. The definition of real EGJ would minimize bias and error and lead to etiologic hypothesis.

Keywords: Palisading longitudinal esophagus vessels; Esophago-gastric junction; Squamo-columnar Junction; Barrett’s epithelium; Gastric cardia cancer

Abbreviations

EGJ: Esophago-Gastric Junction; SCJ: Squamo-Columnar Junction; PLEV: Palisading Longitudinal Esophagus Vessel; H. pylori: Helicobacter pylori; BE: Barrett’s Esophagus; SSBE: Short Segment Barrett’s Esophagus; GERD: Gastro-Esophageal Reflux Disease

The incidence rate of gastric cancer in Japan is one of the highest in developed countries [1]. Infection by Helicobacter pylori (H. pylori) and gastric atrophy have also been associated with the development of gastric cancer [2]. On the other hand, association of H. pylori infection with the risk of stomach cancer is restricted to the noncardia region, while the cardia region shares the same risk factors as the distal part of esophagus, for which an inverse association of H. pylori infection with esophageal adenocarcinoma has been reported [3-6]. An increase in the incidence of esophageal adenocarcinoma and gastric cardia cancer has been reported in Western countries [7,8]. On the other hand, in Japan, where both Barrett’s esophagus (BE) and esophageal adenocarcinoma are far more uncommon than in Western countries, the increase seems to be slight as that of BE [9]. However, the lack of universally accepted criteria for the esophago-gastric junction (EGJ) continues to result clinically in confusion in diagnosis of Barrett’s esophagus, not only in Japan but also in Western countries. Therefore, it is difficult to know true incidences of gastric cardia cancer, esophageal adenocarcinoma and BE, particularly short segment Barrett’s esophagus (SSBE). In endoscopy, as a marker of the distal esophagus and proximal stomach, the observation and clinical significance of longitudinal vessels in the lower esophagus (PLEVs) is more prevalent [11-13].

In authentic textbooks, the positions of squamo-columnar junction (SCJ) and EGJ are coincident in the older textbooks [14-17]. In contrast, SCJ in normal is shifted proximal to the EGJ in the recent textbooks [18,19].

Sharma, et al. emphasized the definition of real EGJ and the association of the length of Barrett’s esophagus with cancer risk [20,21].

To this end, further investigation evaluating the real esophago-gastric junction correctly should be needed. In the same way, the improved quality of data collected by cancer surveillance systems in various countries would minimize bias and error, and thus lead to etiologic hypothesis [22,23].

References