



Letter to the editor

A comparison of gastric cancer between Japan and China

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To the Editor:

One of the authors (Z.-X. L.) recently had an opportunity to visit the University of Tokyo and observed the Japanese fight against gastric cancer. We noticed some important differences of the disease between Japan and China, and would like to report these for our colleagues in this field. This would be meaningful because, although the difference between gastric cancer in the East and West has been frequently discussed, there are few studies that have compared Asian high-incidence countries.

Epidemiology and etiology

In Japan, gastric cancer is the leading cause of cancer death for women and the second cause for men. However, the age-adjusted incidence rate of gastric cancer has been decreasing over the past four decades [1, 2]. The patients with gastric cancer are becoming older, and today 75.2% of the men and 78% of the women who die of gastric cancer are over 65 years of age [3].

In China, the incidence rate of gastric cancer has also been decreasing for both men and women, though it will remain a significant cancer burden and will be one of the key issues in cancer prevention and control strategy.

A characteristic of gastric cancer in China is the rapid increase of cardia cancer in the past three decades. Approximately 40%–50% of gastric cancers are cardia cancers now, and only 9.4% of gastric cancers were located in the cardia 30 years ago [4]. Whereas, in Japan, cancers of the middle and distal third are still predomi-

nant, even though some data suggest that the frequency of cardia cancers is increasing [5].

So far, the risk factors for cardia cancer have not been clearly understood. Recently, an investigation among the Chinese population revealed that there was a significant correlation between dietary habits and cardia cancer [6]. Correlation was also observed between cardia cancer and the consumption of salty fish or pickled vegetables and smoking. It should be emphasized that smoking is a specific risk factor for cardia cancer, and a significant positive dose-effect relationship was found in the daily cigarette consumption and smoking duration [7]. Today, one out of three cigarette smokers in the world lives in China. There is convincing evidence that tobacco smoking moderately increases the risk of gastric cancer among the Japanese population [8].

In China, the risks of both cardia and noncardia gastric cancers were found to be increased in individuals exposed to *Helicobacter pylori*. With longer time between serum collections and cancer diagnosis, the association became stronger for cardia cancers but weaker for noncardia cancers [9]. Currently, the data show that the seroprevalence of *H. pylori* in Chinese and Japanese adults is 44% and 55%, respectively. The annual incidence rates of gastric cancer in China and Japan are 32–59 and 80–115 per 100 000 population, respectively [10].

Clinical characteristics

Although the clinicopathological features of Chinese patients with intestinal-type and diffuse-type carcinoma are similar to those in studies from Japan, the distribution of the three types of esophagogastric junctional tumor in China was found to be different from that reported in Japan. Among 203 Chinese patients, there were 29 patients with adenocarcinoma of the distal

esophagus (type I); 80 patients with true carcinoma of the cardia (type II); and 94 patients with subcardial carcinoma (type III) [11].

Surgical treatment

Because of the increasing incidence of early gastric cancer in Japan, Japanese surgeons are paying attention to the treatment of early gastric cancer. In contrast, most Chinese patients have advanced disease. As a result, the overall 5-year survival rate in China remains at 30%–57.1% [12–14], while it has reached 63.8%–77.2% in Japan [14, 15].

A recent report from China indicated the 5-year survival rate of cardia cancer had increased from 15.2% in 1952 to only 17.6% in 2000, although the surgical mortality rate had decreased from 4.6% to 1.1% [16]. Earlier diagnosis of cardia cancer is likely to improve the survival rate. So, China needs to borrow from Japan by establishing screening programs for early diagnosis and new strategies for the treatment of early gastric cancer. In order to decrease the incidence rate of gastric cancer, it is very important to change the traditional lifestyle in China, in particular in the rural areas. Cooperation between Chinese and Japanese doctors is essential to improve the effect of treatment of gastric cancer.

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