Epidemiological investigation of esophageal carcinoma

Hong Zhang, Shao-Hua Chen, You-Ming Li

Hong Zhang, Shao-Hua Chen, You-Ming Li, Digestive department, the First Affiliated Hospital, Medical College of Zhejiang University, Hangzhou 310003, Zhejiang Province, China

Correspondence to: Professor You-Ming Li, Digestive Department, the First Affiliated Hospital, Medical College, Zhejiang University. No.79 Qingchun Road, Hangzhou, 310003, Zhejiang, China. lyouming@dna.net.cn

METHODS: A total of 1 520 cases of esophageal carcinoma in the First Affiliated Hospital of Zhejiang University Medical College admitted from 1970 until now were reviewed. Their age, gender, position of carcinoma and histological type were analyzed.

RESULTS: The morbidity of esophageal carcinoma was increasing during the observation period. Compared with the 1970s (9.5%), the ratio of adenocarcinoma significantly increased after the 1980s (19.1%). The difference was significant (P < 0.05).

CONCLUSION: The morbidity of esophageal adenocarcinoma was increasing and advanced clinical study should be strengthened.

Zhang H, Chen SH, Li YM. Epidemiological investigation of esophageal carcinoma. World J Gastroenterol 2004; 10(12): 1834-1835

http://www.wjgnet.com/1007-9327/10/1834.asp

INTRODUCTION

Carcinoma of esophagus is one of the most common cancers with a high mortality. Squamous cell carcinoma and adenocarcinoma account for more than 95% of esophageal tumors[1]. The incidence rate of squamous cell carcinoma of the esophagus in the pathological feature is more frequent compared with adenocarcinoma. Increasing prevalence of adenocarcinoma of the esophagus has been reported from western countries in recent years and its incidence since the 1970s in China is unknown. Our study aimed to make an epidemiological investigation of carcinoma of esophagus and compare the incidence rate of adenocarcinoma and squamous cell carcinoma of the esophagus.

MATERIALS AND METHODS

Medical records of all patients (n=1 520) with adenocarcinoma or squamous cell carcinoma of the esophagus seen at the the First Affiliated Hospital of Zhejiang University Medical College between 1970 and 2001 were reviewed. The following data were retrieved: age, gender, tumor location, history of surgery and pathological features. The patients were divided into 3 groups.

| Age (yr) | A | B | C |
|----------|---|---|---|
| ≤30      | 3 (1.4) | 2 (0.4) | 5 (0.6) |
| 30-      | 15 (7.1) | 20 (4.3) | 26 (3.0) |
| 40-      | 47 (22.3) | 72 (16.0) | 162 (18.9) |
| 50-      | 103 (48.8) | 160 (35.5) | 250 (29.1) |
| >60      | 43 (20.4) | 197 (43.7) | 415 (48.4) |

DISCUSSION

Esophageal cancer is one of the most deadly forms of gastrointestinal cancer in China and death rate from carcinoma of esophagus ranked the third annually. Epidemiological data defined a certain geographical distribution[2]. In high mortality areas of China, Iran and Africa, the incidence of esophageal tumors is significantly higher. No significant difference of sex ratios (male/female) was found between the groups in gender. Among 240 cases of adenocarcinoma of esophagus, 195 (81.3%) were male and 45 (18.7%) were female. The age distribution of the patients is shown in Table 1.
Further study is required to determine the risk factors such as food[17] for the development of esophageal cancer and epidemiological investigation will prove important developing methods of detection and therapeutic intervention of this disease.

REFERENCES

1 Klímstra DS. Pathologic prognostic factors in esophageal carcinoma. Semin Oncol 1994; 21: 425-430
2 Stathopoulos GP, Tsiaras N. Epidemiology and pathogenesis of esophageal cancer management and its controversial results (review). Oncol Rep 2003; 10: 440-454
3 Lu JB, Sun XB, Dai DX, Zhu SK, Chang QL, Liu SZ, Duan WJ. Epidemiology of gastroenterologic cancer in Henan Province, China. World J Gastroenterol 2003; 9: 2400-2403
4 Blot WJ. Esophageal cancer trends and risk factors. Semin Oncol 1994; 21: 403-410
5 Wei JT, Shaheen N. The changing epidemiology of esophageal adenocarcinoma. Semin Gastrointest Dis 2003; 14: 112-127
6 Lukanich JM. Section I: epidemiological review. Semin Thorac Cardiovasc Surg 2003; 15: 158-166
7 Newnham A, Quinn MJ, Babb P, Kang JY, Majeed A. Trends in the subsite and morphology of oesophageal gastric cancer in England and Wales 1971-1998. Aliment Pharmacol Ther 2003; 17: 665-676
8 Zaninotto G, Costantini M, Molena D, Rizzetto C, Ekser B, Ancona E. Barrett’s esophagus. Prevalence, risk of adenocarcinoma, role of endoscopic surveillance. Minerva Chir 2002; 57: 819-836
9 Powell J, McConkey CC, Gillison EW, Spychal RT. Continuing rising trend in oesophageal adenocarcinoma. Int J Cancer 2002; 102: 422-427
10 Younes M, Henson DE, Ertan A, Miller CC. Incidence and survival trends of esophageal carcinoma in the United States: racial and gender differences by histological type. Scand J Gastroenterol 2002; 37: 1359-1365
11 Rana PS, Johnston DA. Incidence of adenocarcinoma and mortality in patients with Barrett’s oesophagus diagnosed between 1976 and 1986: implications for endoscopic surveillance. Dis Esophagus 2000; 13: 28-31
12 Spechler SJ. Barrett’s esophagus and esophageal adenocarcinoma: pathogenesis, diagnosis, and therapy. Med Clin North Am 2002; 86: 1423-1445
13 Reynolds JC, Rahimi P, Hirschl D. Barrett’s esophagus: clinicopathological characteristics. Gastroenterol Clin North Am 2002; 31: 441-460
14 Costantini MJ, Wong RK. Barrett’s esophagus and risk of esophageal adenocarcinoma. Semin Gastrointest Dis 2003; 14: 128-135
15 Younes M, Henson DE, Ertan A, Miller CC. Incidence and survival trends of esophageal carcinoma in the United States: racial and gender differences between histological type. Scand J Gastroenterol 2002; 37: 1359-1365
16 Vega KJ, Jamal MM. Changing pattern of esophageal cancer incidence in New Mexico. Am J Gastroenterol 2000; 95: 2352-2356
17 Li K, Yu P. Food groups and risk of esophageal cancer in Chaoshan region of China: a high-risk area of esophageal cancer. Cancer Invest 2003; 21: 237-240

Edited by Ma JY Proofread by Xu FM