International Journal of Cancer Research 1 (1-2): 57-59, 2005
ISSN 1811-9727

Esophageal Cancer in an Iranian 20 Years Old Young Male-A Case Report

Sh. Semnani, N. Abdollahi, Kh. Kalavi and R. Azarhoosh
University of Golestan Province Medical Sciences, Gorgan, Iran

Abstract: Present study introduces a case of esophagus cancer, who was a 20 years old young male Turkmen. He had been attended the polyclinics of 5-azar educative hospital in Gorgan, the capital city of Golestan province, located in north east of Iran. The patient had faced with a serious dysphagia with a progressive mode in nature, when attended. He had been experiencing the problem three months before attending. Because the high frequency of the esophagus cancer in the region, as expected, we found a papiloadenomatous mass along middle third of the esophagus duct, endoscopically. The diagnosis was epithelial squamous cell carcinoma of the esophagus due to pathologist's report. Unfortunately, the patient then, died in the operating room due to cardiovascular arrest.

Key words: Esophagus, young, elderly, Iran, north region, Trukmen

INTRODUCTION

The esophagus cancer is one of the most worst prognostic malignancies in human, that occur most commonly in adult individuals over 50 years old. The rate of its frequency among men to women in various populations varies from 2:1 to 20:1 and its incidence is about 1.5% of whole and 6% of GIS associated cancers, in USA[1]. The disease is the third one among common GIS involved malignancies and is one of the 10 common ones worldwide. It has been documented that the disease's occurrence varies in different populations probably due to geographic and cultural diversities that can be indicative of the possible environmental etiologic effects[2].

The occurrence of the esophagus cancer is more common in 6th, 7th and 8th decades of life; therefore, it is extremely rare during youth and childhood[3]. A few numbers of young and children with esophagus cancer have been reported yet[4]. Because of the long-term effects of environmental carcinogens, these factors may act as some minimal effectors on the disease etiology in young individuals; so its etiology remained still unknown[5].

The esophagus cancer occurs in two different forms, histologically:

1. The epithelial squamous cell carcinoma of the esophagus
2. The adenocarcinoma of the esophagus[1].

Almost 60% of epithelial cell carcinoma types occur in the middle and about 30% in distal and about 10% of the rest in the proximal third of the esophagus tube[1]. Five years survival rate of the disease had been about 1% among the blacks, 4% in whites; while according to developments in treatment trends, its rates increased to 9 and 13% in blacks and whites, respectively[6].

The incidence of the disease in USA is about 1000 cases/year; but it is more common in South Africa, Iran, china and India. Its frequency in north of Iran nearby Caspian seaside, is 206/100000 cases per year in men and 263 cases/100000 in women[7].

The etiology of the epithelial cell carcinoma of the esophagus is still unclear; but due to epidemiologic studies performed all over the world, there are strong associations between the onset of the disease and materials found in solid and liquid based food, water, tobacco, alcohol, nitrous amines, Candida infections, aflatoxines, avitaminosis especially riboflavin and selenium deficiency states. Other risk factors as obesity, low fruit and vegetable diets, hot beverages, asbestos and other cellular- molecular factors like oncogenes and tumor suppressor genes have been mentioned, too[7].

History: The patient was a young single male Turkmen aged 20 years old from Ag-gala one of the golestan province dependent cities. He had been attended the policlinics of 5-Azar educative hospital (GI specialist ward) in Gorgan, suffering from progressive dysphagia. There had been no evidence of clinical disturbances until three months prior to attending the ward; therefore, the clinical symptoms had initiated from that time with dyphagia against solids, even problems with fluids that had been associated with massive weight loss (10-15 kg). There were no symptoms of epigastric pain, nausea, vomiting, heart burn, hematemesis and melena at that

Corresponding Author: Kh. Kalavi, University of Golestan Province Medical Sciences, Gorgan, Iran
E-mail: kalavi20@yahoo.com Tel: 0098 171 4421651-53, 3351080

time. The patient's history showed no evidence of clinical problems before the occurrence of dysphagia. He had been a smoker since five years ago and opium addicted in smoking and oral mode, since five years ago. There were no symptoms of cervical lymphadenopathy and hepatomegaly, except for cachexia, when attended. Lab-tests showed: occult blood (negative), blood and hepatic function tests were all in normal ranges. Ultrasonography revealed no bulky and massive organic changes in liver, spleen, pancreas para aortal spaces, hepatic cord, gallbladder and bile ducts.

Considering dysphagia, a papiloma-adenematous mass defined endoscopically and diagnosis of a kind of infiltrative tumor cells of atypical epithelial squamous cell carcinoma of the esophagus confirmed, histologically (urease negative-sample). The patient, then confined to bed in the surgical ward to be esophagectomy, where unfortunately expired do to cardio vascular arrest in the operating room.

DISCUSSION

The esophagus cancer is rare in young (in less than 30 years old individuals)[3]. Based on a study (1952-1956), only three deaths (in <14 years) of esophagus cancer had been reported by US researchers[8]; as well there had been no such cases considering the two years survival rate (1969-1971) and SEER study programmes (1976). Moor *et al.*[9] have reported a fourteen years old boy with primary esophagus; however, details of the patient's conditions not reported. Kinnman *et al.*[10] have reported a case of fifteen years old male (well-differentiated type of esophagus cancer) with severe dysphagia. He had a history of lye ingestion when he was only three years old. The youngest patient had been an Indian girl (8 years old) that manifested the problem in middle third of her esophagus associated with lung metastasis[11]. Shahi *et al.*[11] have reported another Indian case (well-differentiated type) that was a 14 years old male. Abdullah *et al.*[12] had reported a 15 years old girl in 2000. This case that had contracted with SCC type, showed no relapse following esophagectomy until to end of that year. Dessueault *et al.*[13] have reported a 31 years old woman with psychogenic self-inductive vomiting that had SCC and Barrett's esophagus. Cheng *et al.*[14] have reported a 19 years old young with a history of dysphagia and postprandial regurgitation. This patient has had diffused esophageal liomyomatosis; so according to this, they have strongly suggested that in younger patients with a history of continuous dysphagia, one should consider the probable occurrence of liomyomatosis. Duvall *et al.*[15] have firstly reported as a case of adenocarcinoma of the esophagus in a young male who suffered from Cornelia de Lange syndrome with a history of reflux duration. Shah *et al.*[16] have introduced a case who was a Youngman suffering from a periodic episodes (month interval) of dysphagia and normal endoscopic close to the esophagus duct, which its resection showed a carcinoma completely fill an esophageal diverticulum's with a normal esophageal lumen. Dewer *et al.*[17] had reported a case of esophagus cancer in a young girl (20years old). In their case, the carcinoma of the esophagus had occurred because of osteosarcoma chemotherapy. Bolufendis *et al.*[18] have introduced a 31 years old male with a thirty days prolongation of dysphagia and weight loss, who had contracted with malignant melanoma. The patient then underwent a surgical operation of partial esophagectomy; but a month later, expired due to brain metastasis of tumor cells. Levin *et al.*[19] have reported six cases of esophagus cancer that the youngest one was a 26 years old patient. No one of them showed any significant and confidential clinical findings, in physical examination. Four cases had reported to have polyptoid masses in cardia and in all cases, tumor cells had involved distal areas and in five of six, there was a rate of dysphagia, when attended the ward. The illness is worse prognostic in the younger patients than elderly are[20-22] because:

1) Aggressive biologic nature of the disease among the young, 2) clinical and diagnostic presumption is not considered as an awful prognostic cancer among this group of patients.

According to a study established in Japan, there have been significant associations between prognostic state and types of mutations[23]. Regarding to some reports in young in comparison with elderly, there were no significant associations, considering sex, smoking and alcohol misuse and rate of death during surgical operation and prognosis[24-26]; therefore it has suggested that in young patients with continuous symptoms, endoscopic evaluations should be considered[24].

CONCLUSIONS

The esophageal cancer is a common problem in north region of Iran. Its frequency was also on an increasingly manner among young people. Therefore, it is strongly recommended that all cases especially younger ones referring policlinics and are going to be visited by physicians everywhere, should be examined more carefully and performed all available diagnostic methods to rule out the disease. Especially if manifestations of symptoms like dysphagia, reflux, Barrett's syndrome and other, doubtful GIS associated problems are present.

REFERENCES

1. Cotron, R., V. Kumar and T. Collins, 1999. Robbins Pathologic Basis of Disease, 6th Edn., pp: 783-784.
2. Castell, D.O. and J.E. Richter, 1999. The Esophagus. 3rd Edn., pp: 235-238.
3. Morim, Ohnos and Tsutsis *et al.*, 1990. Esophagus cancer in young patient. Ann Thoracic Surg., 49: 284-286.
4. Shahi, U.P., S. Sudarsan and S. Dattagupta *et al.*, 1989. Carcinoma of esophagus in a 14-years old child: report of a case and review of literature. Trop. Gastroenterol., 10: 225-228.
5. Day, N. and N. Munos, 1982. Esophagus: Cancer epidemiology and prevention. Philadelphia: wb Saunders, pp: 596-623.
6. Limax, S.J. and Cheng *et al.*, 1984. Etiology of Carcinoma of the Esophagus. In: Carcinoma of the Esophagus and Gastric Cardia. New York: Springer-verlag, pp: 25-51.
7. Pickett, L.K. and H.C. Biggs, 1967. Cancer of the gastrointestinal tract in childhood. Paediatr. Clin. North Am., 94 : 223-224.
8. Sutow, W.W. *et al.*, 1984. General Aspects of Childhood Cancer. Clinical Pediatric Oncology. 3rd Edn: CV Mosby Co., pp: 1-13.
9. Moor, C. *et al.*, 1958. Visceral squamous cancer in children. Pediatrics, 21: 573.
10. Kinnman, J., H.I. Shin and P. Wetteland, 1968. Carcinoma of the esophagus after lye corrosion. Acta Chir Scand, 94: 332-93.
11. Soni, N.K. and P. Chatterji, 1980. Carcinoma in the esophagus in an eight-year old child. J. Laryngol Otol., 94: 327-329.
12. Abdullah, R. and F. Allam *et al.,* 2000. Esophagus carcinoma in a 15- years old girl: A case report and review of the literature: Annals of Saudi Medicine, 120: 261-264.
13. Dessueault, S., D. Coppolo, M. Weitzner, B.S.P. Dower, S. Florida and D.C. Richer, 2000. Barrett Esophagus and squamous cell carcinoma in a patient with psychogenic vomiting. Intl. J. Gastrointestinal Cancer, 32: 57-62.
14. Cheng, Y.I., H.H. Hsu, C.P. Yu and Lee Sc, 2000. Diffuse liomyomatosis of the esophagus. Dig. Surg., 17: 528-531.
15. Duvall, G.A. and D.T. Wolden, 1996. Adenocarcinoma of the esophagus complicating cornela de long syndrome. J. Clin. Gastroenterol., 22: 131-133.
16. Shah, S.M. and S.G. Desia, 1992. Carcinoma in an esophageal diverticulum's. J. Assoc. Physician India, 40: 119-120.
17. Dewar, J.M., J.T. Courteny, M.Y. Byrne and R.A. Joke, 1998. Esophageal cancer in a young woman after treatment for osteosarcoma. Med. Pediatric Oncol., 16: 287-289.
18. Boulafendis, D., M. Domiani, M.E. Sie, E. Bastounis and H.A. Samon, 1985. Primary malignant melanoma of the esophagus in a young adult. Am. J. Gastroenterol., 80: 417-420.
19. Levin, M.S., I. Laufer and J. Thomson, 1983. Carcinoma of the gastric cardia in young people. AJR Am. J. Roent. Genol., 140: 69-72.
20. Luj, P., M.S. Xian and K. Hayoshi, 1994. Morphologic feature in esophageal squamous cell carcinoma in young adults in north of China. Cancer, 74: 573-577.
21. Patil, P.K., S.G. Ptel, R.C. Mistry, R.K. Deshpande and B.P. Desai, 1992. Cancer of the esophagus in young adults. J. Search Oncol., 50: 179-182.
22. Kollh, P., P. Honore, J.I. Gielen, C. Degauque, M. Legrand and N. Jacquet, 1999. Analysis of Factors of Cancer, 80: 1282-1288.
23. Osugi, H., K. Morimora, E. Okudo, M. Takemon and N. Takada, 2002. p53 null mutation detected by a p53 yeast functional assay predicts a poor outcome in young esophageal carcinoma patient. Intl. J. Oncol., 21: 637-641.
24. Bowery, D.G., G.W. Clark, B.I. Rees, G.T. Williams and P.D. Carey, 1999. Outcome of esophagogastric carcinoma in a young patient. Post Grad Med. J., 75: 22-26.
25. Tsai, C.H., H.S. Hsu. L.S. Wang, H.W. Wang, Y.C. Wu and C.C. Hsieh, 2002. Squamous cell carcinoma of the esophagus in young patients. J. Chin. Med. Assoc., 66: 93.
26. Mori, M., S. Ohno, S. Tsutsui, H. Masuura, H. Kuwono and K. Sugimachi, 1990. Esophageal carcinoma in young patients. Ann. Thoracic Surg., 42: 248-249.