



Original Article

Factors Affecting The Survival Trend In Oesophageal Malignancy- A Hospital Based Study

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Abstract

Oesophageal cancer is a gastrointestinal malignancy with insidious onset and poor prognosis. The disease predominantly affects the older age groups with pick incidence between 60 to 70 years of age. The total number of oesophageal cancer patients available for the study within the stipulated time was 43. Among them 60.47% patients were male and 39.53% patients were female, 06.98% belonged to age group 31-40, 16.28% belonged to age group 41-50, 37.21% belonged to age group 51-60, 23.25% belonged to age group 61-70 and 16.28% patients were >70 years of age. Mean age was 59.95 years \pm 12.63 SD. In our study, 33.3% survived \leq 3 months, 09.1% 4-6 months, 15.2% 7-9 months, 06.1% 10-12 months, 27.2% 13-24 months and 09.1% >24 months. Among the expired patients, 09.10% got curative treatment and rest of 90.90% got palliative treatment. Those who got curative treatment 66.7% survived 13-24 months and 33.3% > 24 months. Those who got palliative treatment 36.7% survived \leq 3 months, 10.0% 4-6 months, 06.7% 10-12 months and 30.0% 13-24 months. Overall median survival was 08 months, for curative treatment 18 months and for palliative treatment 07 months.

Key Word: Oesophageal carcinoma, Survival trend, Metastasis, Curative treatment, Palliative treatment.

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Introduction

Gastrointestinal tract is the most common site for malignancy and second most common cause of cancer related mortality in the United States.¹ The common malignancy in gastroenterology are carcinoma oesophagus, carcinoma stomach, colorectal cancer, hepatocellular carcinoma, carcinoma pancreas and cholangiocarcinoma. The incidence of these cancers of different sites differs significantly by geographic region and race. Age of presentation also varies from country to country. Oesophageal cancer is a gastrointestinal malignancy with insidious onset and poor prognosis. The disease predominantly affects the

older age groups with pick incidence between 60 to 70 years of age. It occurs frequently within a geographic region extending from the southern shore of the Caspian Sea on the west to northern China on the east and encompassing parts of Iran, Central Asia, Afghanistan, Siberia and Mongolia.² Oesophageal cancer is the seventh most common cause of cancer related deaths in man in the United States and has ranked among the top ten causes of cancer related death worldwide.³ In USA, the 5 years survival rates were 15.8% for carcinoma oesophagus.⁴ But in India the 5 year relative survival rates were 11.8% for carcinoma oesophagus.⁵ Cancer in oesophagus is extremely

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lethal malignancy.⁶ SEER report on oesophageal cancer in US indicate the incidence rate:- Approximately 0.0% were diagnosed under age 20; 0.4% between 20 and 34; 2.3% between 35 and 44; 12.0% between 45 and 54; 24.3% between 55 and 64; 27.7% between 65 and 74; 25.0% between 75 and 84; and 8.2% 85+ years of age.⁷

Objectives

To determine the factors affecting the survival trend of carcinoma oesophagus.

Material and Methods

It was a prospective cross sectional study done in the Department of Gastroenterology, BSMMU,

Dhaka from 16th April 2010 to 15th October 2011. Cases were selected from patients who were admitted in the department of Gastroenterology, Hepatology, Medicine, Surgery and Oncology as well as patients of oesophageal cancers attending outpatient department of BSMMU.

Result

The total number of cases available for the study within the stipulated time was 43. Among them 26 (60.47%) patients were male and 17 (39.53%) patients were female.

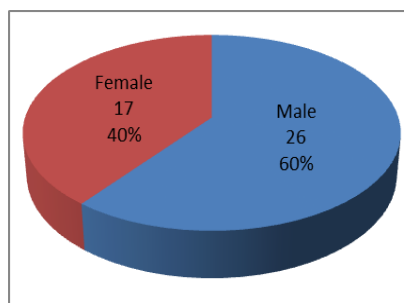


Fig.1: Male and female ratio of oesophageal cancer patients

Among 43 patients, 0 patient belonged to age group ≤ 20, 0 belonged to age group 21-30, 03 belonged to age group 31-40, 07 belonged to age group 41-50, 16 belonged to age group 51-60, 10 belonged to age group 61-70 and 07 patients were >70 years of age. Mean age was 59.95 years ± 12.63 SD.

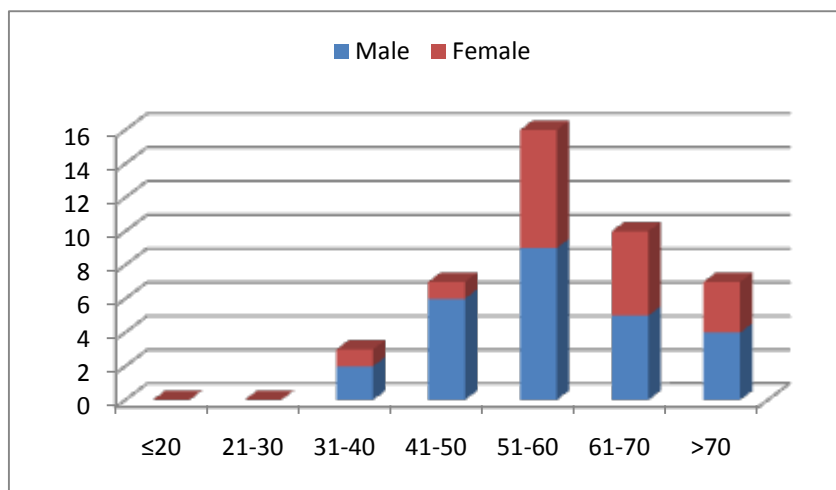


Fig.2: Age distribution and male/female distribution according to age

Among 43 patients of carcinoma oesophagus, 02.33% (01) involved in the upper part, 46.51% (20) in the middle part and 51.16% (22) in the lower part of oesophagus.

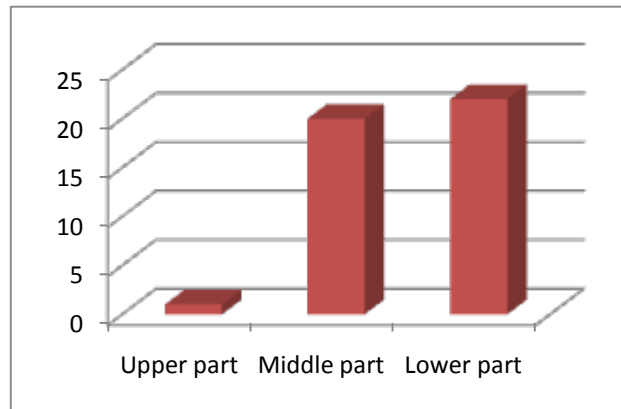


Fig.3: Involvement of carcinoma in different parts of esophagus

Among 43 patients of carcinoma oesophagus, histopathology showed 65.12% (28) squamous cell carcinoma and 34.88% (15) adenocarcinoma.

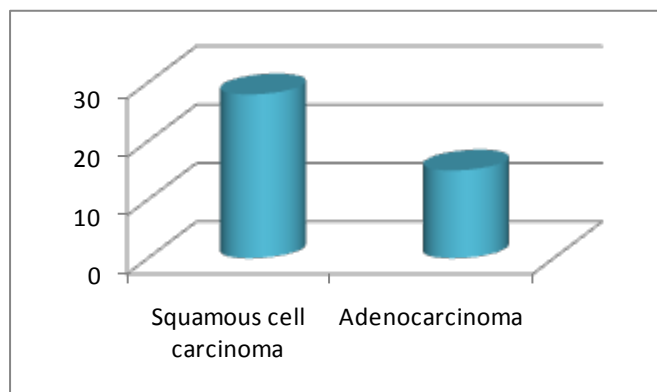


Fig.4: Histopathological pattern of oesophageal carcinoma

Among 43 patients, 74.42% (32) patients presented with metastasis (lymph node and other organ) during diagnosis.

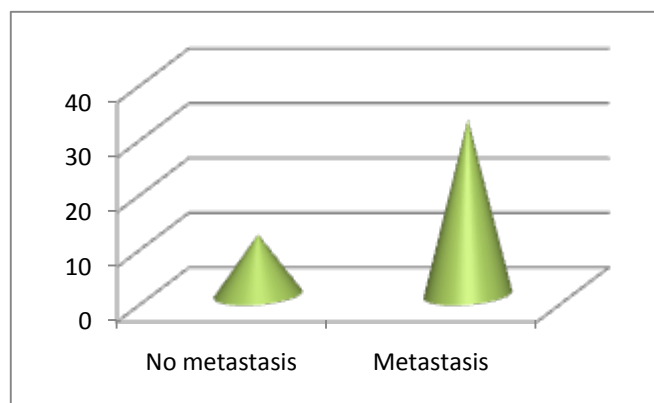


Fig.5: Presence of metastasis during diagnosis

Table 1: Duration between onset of symptoms and date of diagnosis. [n=43]

Total no	≤3 months	4-6 months	7-9 months	10-12 months	>12 months
n	%	%	%	%	%
43	55.8 (24)	23.3 (10)	09.3 (04)	07.0 (03)	04.6 (02)

Mean duration of diagnosis was 05 months. Among 43 patients, 16.28% (07) lost follow up during the study period.

Table 2: Follow up of oesophageal cancer patients. [n=43]

Total no	Attrition problem		Regular follow up	
n	n	%	n	%
43	07	16.28	36	83.72

Among 36 patients, who were in regular follow up, 08.33% (03) alive and 91.67% (33) expired during the follow up period.

Table 3: Outcome of patients of oesophageal cancer. [n=36]

Total no	Alive		Expired	
n	n	%	n	%
36	03	08.33	33	91.67

Table 4: Percentages of survival of the oesophageal cancer patients. [n=33]

Total no	≤3 months	4-6 months	7-9 months	10-12 months	13-24 months	>24 months
n	%	%	%	%	%	%
33	33.3 (11)	09.1 (03)	15.2 (05)	06.1 (02)	27.2 (09)	09.1 (03)

Among 33 patients, 3 got curative treatment and rest of 30 got palliative treatment.

Table 5: Survival trend of oesophageal cancer according to treatment. [n=33]

Survival Time	Curative R _x		Palliative R _x		Overall Median Survival
	n=03	%	n=30	%	
≤3 months	0	0	11	36.7	8 months
4 - 6 months	0	0	3	10.0	
7 - 9 months	0	0	5	16.6	
10 - 12 months	0	0	2	06.7	
13 - 24 months	2	66.7	9	30.0	
> 24 months	1	33.3	0	0	

Median Survival of the patients:

Overall: 08 months

For patients with Curative treatment: 18 months

For patients with Palliative treatment: 07 months.

Discussion

The total number of oesophageal cancer patients available for the study within the stipulated time was 43. Among them 60.47% patients were male and 39.53% patients were female. 0.0% belonged to age group ≤ 20 and age group 21-30, 06.98% belonged to age group 31-40, 16.28% belonged to age group 41-50, 37.21% belonged to age group 51-60, 23.25% belonged to age group 61-70 and 16.28% patients were >70 years of age. Mean age was 59.95 years \pm 12.63 SD. SEER report on oesophageal cancer in US indicate the incidence rate- Approximately 0.0% were diagnosed under age 20; 0.4% between 20 and 34; 2.3% between 35 and 44; 12.0% between 45 and 54; 24.3% between 55 and 64; 27.7% between 65 and 74; 25.0% between 75 and 84; and 8.2% 85+ years of age.⁸

Cheung MC et.al. found two thirds (66%) of the patients had squamous cell carcinoma, 34% of the patients had a diagnosis of adenocarcinoma. At the time of diagnosis, about half of the patients with either type of cancer had metastatic disease.⁹ In our study, we found 02.33% cancer involved in the upper part, 46.51% in the middle part and 51.16% in the lower part of oesophagus. 65.12% patients had squamous cell carcinoma and 34.88% had adenocarcinoma. 74.42% patients presented with metastasis (lymph node and other organ) during diagnosis.

In our study, duration between onset of symptoms and date of confirmatory diagnosis were 55.8% ≤ 3 months, 23.3% 4–6 months, 09.3% 7–9 months, 07.0% 10–12 months and 04.6% >12 months. Mean duration of diagnosis was 05 months. 16.28% lost follow up during the study period and who were in regular follow up, 08.33% was alive and 91.67% expired during the follow up period.

Cheung MC et.al. found the survival rate for those with SCC was 1.1 years and for those with adenocarcinomas was 8 months. Most of the patients who received chemotherapy and radiotherapy had a diagnosis of squamous cell carcinoma, while those who had surgery were mostly adenocarcinoma cases.¹⁰ In our study, 33.3% survived ≤ 3 months, 09.1% 4–6 months,

15.2% 7–9 months, 06.1% 10–12 months, 27.2% 13–24 months and 09.1% >24 months. Among 33 expired patients, 09.10% got curative treatment and rest of 90.90% got palliative treatment. Those who got curative treatment 66.7% survived 13–24 months and 33.3% > 24 months. Those who got palliative treatment 36.7% survived ≤ 3 months, 10.0% 4–6 months, 06.7% 10–12 months and 30.0% 13–24 months. Overall median survival was 08 months, for curative treatment 18 months and for palliative treatment 07 months.

Reported overall 5 years survival is 10-15% worldwide.¹¹ In India, 5 years survival in carcinoma oesophagus is 11.8% and 1 year 34%.¹² In Pakistan the median survival is 7 months. In Iran median survival is 9 months. If we consider worldwide 5 years survival trend, Bangladesh record is not adequate and median survival is low due to some factors like early age of presentation, more time required for confirmatory diagnosis, most of the patient diagnosed at advance stage, lack of facility for curative as well as palliative treatment and loss of follow up.

Conclusion

This study was done keeping in mind to estimate the survival trend of the patients who had malignancy involving oesophagus. The current study identified most of the patients of carcinoma oesophagus are died earlier than expected due to a variety of reasons including early age of presentation, delayed confirmatory diagnosis, diagnosis of the cancer at advance stage, unavailability of curative treatment, financial problem to take curative as well as palliative treatment and loss of follow up. The patients who received curative treatment are having more chance of better survival.

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