

STUDY OF CARCINOMA ESOPHAGUS IN DERA ISMAIL KHAN

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ABSTRACT

Background: Carcinoma esophagus is a common malignant tumor in Pakistan and it is the 6th commonest tumor worldwide. The aim of this study was to know the characteristics of carcinoma esophagus in our set up.

Methodology: It was a descriptive study conducted at DHQ Teaching Hospital D.I.Khan from August 2003 to March 2009. A total of 89 histological proven cases of esophageal carcinoma were collected after diagnosis and the endoscopic findings were observed. Biopsies of the lesions were taken for histopathological confirmation.

Results: Among 89 cases of esophageal carcinoma studied 65(73%) were males and 24(27%) females, with male to female ratio of 2.7:1. Maximum cases were in 50-80 years age group. Majority of patients 70(78.64%) were from Zhob district, Afghanistan and tribal belt. Most of the patients 66(74%) were having history of tobacco use in the form of chewing or smoking. Middle third of esophagus was the common site involved. Squamous cell carcinoma was more common 75(84%) than adenocarcinoma 14(16%). Duration of disease at the time of presentation ranged from 2 to 10 months. The most common presentation was dysphagia for solids 84(94%).

Conclusion: Esophageal carcinoma is more common in males and tobacco users. Its most common presentation is dysphagia for solids. Middle third is the most common site involved and squamous cell carcinoma is more common than adenocarcinoma.

KEY WORDS: Esophageal carcinoma, Esophagus, Tobacco.

INTRODUCTION

Carcinoma of esophagus is a common malignant tumor in Pakistan and it is the 6th commonest tumor worldwide.¹ It is highly lethal because most patients present with advanced disease. It accounts for 7% of gastrointestinal malignancies.²

Carcinoma esophagus is a disease of old age group but younger people are also being affected. Most of the patients with esophageal cancer are seen in the 5th decade of life followed by 4th and 6th decades.³ The risk increases with age.

More than 90% of esophageal cancers are either squamous-cell carcinomas or adenocarcinomas.^{4,5} Approximately three quarters of all adenocarcinomas are found in the distal esophagus, whereas squamous cell carcinomas are more evenly distributed between the middle and lower third. Cervical esophagus is an uncommon site for the disease.

Smoking is associated with an increased risk of both squamous cell carcinoma and adenocarcinoma.⁶ Many carcinogens including nitrosamines and polycyclic hydrocarbons exist in tobacco.⁷ The ingestion of tobacco condensates is thought to bring tobacco carcinogens, particularly nitrosamines in contact with esophageal mucosa. The risk of esophageal cancer correlates directly with the quantity of cigarettes smoked per day and the duration of smoking.⁸

The aim of the study was to know the characteristics of carcinoma esophagus in our set up.

PATIENTS AND METHODS

This descriptive study was carried out in the Gastroenterology unit of Medical Department at DHQ Teaching Hospital D.I.Khan from August 2003 to March 2009. All patients with histological diagnosis of carcinoma esophagus were analyzed and their correlation with tobacco use in the form of oral or smoking was noted. A total of 89 cases with diagnosis of esophageal carcinoma were studied.

RESULTS

Among 89 patients of esophageal carcinoma 65 (73%) were males and 24 (27%) females, with a male to female ratio of 2.7:1. (Fig. 1)

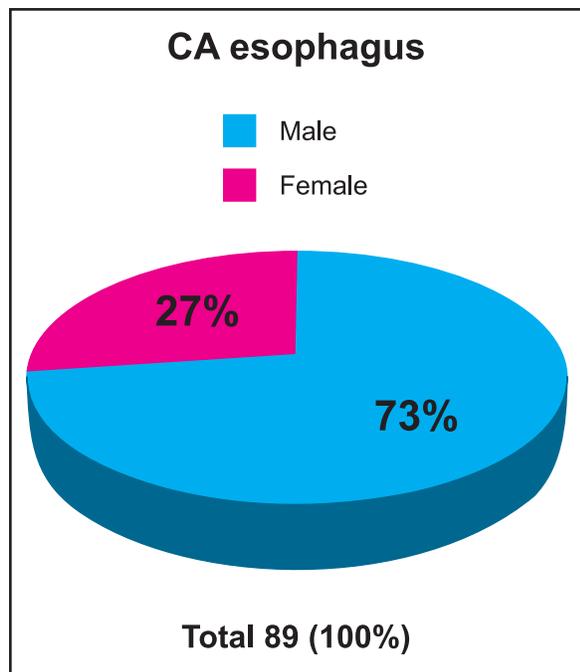


Fig. 1: Sex distribution of patients with carcinoma esophagus..

Maximum cases were in the age group 50 to 80 years.

The majority of patients 66 (74%) were either smokers or tobacco chewers and 23 (26%) were non-tobacco users (p<0.05). (Fig. 2)

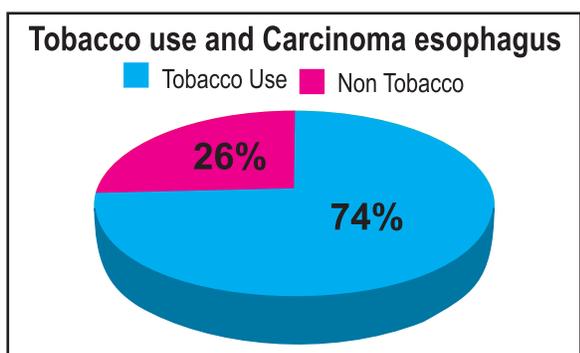


Fig. 2: Tobacco use in patients with carcinoma esophagus.

Geographical distribution showed that majority of cases were from Zhob district 35 (39.32%). (Table 1)

Middle 3rd was the common site for carcinoma esophagus 58 (65.22%) followed by lower

Table 1: Geographical distribution of carcinoma esophagus.

S. No.	Area	Number	Percentage
1.	Zhob	35	39.32%
2.	Afghanistan	20	22.47%
3.	Tribal belt	15	16.85%
4.	Bakkkar	07	07.86%
5.	Mianwali	05	05.61%
6.	Laki Marwat	04	04.49%
7.	D.I.Khan	02	02.24%
8.	Bannu	01	01.12%

third 27 (30.43%) and only in 4 (4.35%) cases the upper third was involved. (Table 2)

Table 2: Site of carcinoma esophagus.

Site	Number	Percentage
Upper third	04	04.35%
Middle third	58	65.22%
Lower third	27	30.43%

Histology report revealed squamous cell carcinoma in 75 (86.26%) and adenocarcinoma in 14 (13.74%) patients. (Table 3)

Table 3: Histological finding of carcinoma esophagus.

Histological Type	Number	Percentage
Saqumous cell Carcinoma	75	84.26%
Adenocarcinoma	14	15.74%

DISCUSSION

Esophageal carcinoma is the 6th most common cancer in men in local population, while it is the leading malignancy in Afghans.⁹ It is usually a disease of old age, however it has been observed in younger age group as well.¹⁰

The age group having the highest incidence of esophageal cancer was 50 to 80 years in our study. The results of other studies from Pakistan show similar frequency of age distribution with

mean age of 59+13 years in males and 50+13 in females.¹¹

In general men are affected two to three times more often than women.¹² Similar observation was made in this study with male to female ratio of 2.7:1. Male dominance may be related to the habit of smoking which has been observed more in males than females in this part of the world.

Smoking, pan chewing and snuff taking are the risk factors for carcinoma esophagus.¹³ The incidence of squamous cell carcinoma is high in those using excess tobacco and alcohol.¹⁴ Snuff or oral tobacco may have carcinogenic effect as majority of our patients took snuff from early age along with more than ten years of smoking. Recent studies shows that chillies and snuff are both contaminated with *aspergillus flavus* producing aflatoxin BL mycotoxin which is carcinogenic.¹⁰

Majority of our cases (61.79%) were from Zhob district followed by Afghanistan and tribal belt. Zhob, Afghanistan and tribal belt come in esophageal cancer belt area which stretches from the Caspian sea to North of China.¹⁵ People belonging to Zhob district and Afghanistan use high salted meat cooked in animal fat and hot black tea which may be the reason for high prevalence of esophageal cancer in this region. High salted diet is associated with an increased risk.¹⁶ Thermal irritation may damage the esophagus and facilitate a carcinogenic agent through esophageal mucosa leading to carcinoma esophagus.¹⁷

Histologically squamous cell carcinoma was more common than adenocarcinoma. Squamous cell carcinoma was found in 84.26% of patients and adenocarcinoma in 15.73% of patients in our study. Tobacco may have an etiological role in squamous cell carcinoma.¹⁴

CONCLUSION

Esophageal carcinoma is more common in males and tobacco users. Its most common presentation is dysphagia for solids. Middle third is the most common site involved and squamous cell carcinoma is more common than adenocarcinoma.

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