

Original Article

Clinicopathological Study of Carcinoma Larynx

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Abstract:

Setting: Department of otolaryngology and Head-Neck surgery, Rajshahi Medical College Hospital, Rajshahi.

Methods: 80 patients were included in this study during a period of July 2006 to June 2007. Study based on history, clinical, radiological, laboratory and histopathological examination. The larynx is divided for purpose of tumour classification into three regions- Supraglottic, Glottic and Subglottic.

Results: The age ranges from 25 to 85 years. The overall male to female ratio 93.75:6.25. Laryngeal carcinoma shows significant association with low socioeconomic and education group. The commonest symptoms of laryngeal carcinoma was change of voice 100%(20) in case of glottic carcinoma and 90%(54)in cases of supraglottic carcinoma. Other common symptoms were difficulty of swallowing, respiratory distress, cough, neck swelling, haemoptysis, neck pain. Palpable cervical lymph node was present in 50% (40) cases

Conclusion: Predominant histological type was squamous cell carcinoma 97.5%(78), undifferentiated carcinoma 1.25%(1), adenocarcinoma 1.25%(1). Symptoms of presentation has a significant association with site of involvement. The symptoms of presentation of supraglottic carcinoma occurred more frequently at the advanced stage.

Key words: Carcinoma larynx.

Introduction:

Head-Neck cancer is a major world wide health problem. Regarding the distribution of head and neck cancer, the main bulk of

the cancer was formed by larynx.^{2,3} The larynx is divided for purpose of tumor classification into three regions -Supraglottic, Glottic and Sub glottic. The vocal fold epithelium is squamous rather than respiratory and contains no mucous glands.⁵

Glottic carcinoma is favourable type because of early diagnosis and treatment and the area is devoid of lymphatics. Subglottic carcinoma has worse prognosis.⁴ The cause of cancer of the larynx is still unknown. Tobacco and alcohol abuse are the major risk factors for the development of squamous cell carcinoma. Atmospheric pollution is also

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positively correlated with squamous cell carcinoma of larynx. The symptoms of carcinoma of larynx are not greatly different from those of any space occupying lesion of the larynx, but certain features make a carcinoma more distinguishable. These include progressive and unremitting dysphonia, dyspnoea and stridor. Swelling of neck may be due to secondary in the neck or due to direct extension of the laryngeal growth. Carcinoma of larynx generally is treated with surgery and/or radiotherapy. Chemotherapy is sometimes used as an adjuvant to radiation or very rarely it is used as palliation in recurrent or residual growth. Treatment especially of patient with early stage (stage I or stage II) is often successful. It depends upon the site of lesion, extent of lesion, presence or absence of nodal & distant metastasis.

Aims and Objectives:

To find out the common presenting symptoms of laryngeal carcinoma.

Methods:

Sample size: 80

Type of study:

Cross sectional

Study Period :

July 2006 to June 2007

Place of study: Department of Otolaryngology and Head-Neck Surgery, Rajshahi Medical college, Rajshahi.

Results:

Data were collected on laryngeal carcinoma from ENT department of Rajshahi Medical College Hospital during a period of 12 months. The total number of cases were 80 (Male:75, Female:5).

Table I

Distribution of sites of laryngeal Carcinoma

Supraglottic	Glottic	Subglottic
60(75%)	20(25%)	0%

Supraglottic carcinoma was found most of the cases. The ratio of Supraglottic and glottic carcinoma was 3:1.

Table II :

Age distribution

Age in year	No. of cases	Percentages
0-20	0	0%
21-40	8	10%
41-60	48	60%
61-80	24	30%

About 60% (48) of the patients were among the age group of 41 to 60 years.

Table III :

Sex distribution

Male	Female
93.75%	6.25%

The overall male to female ratio of laryngeal carcinoma was about 19:1.

Table IV :

Socioeconomic status

Socioeconomic status	No. of cases	Percentages (%)
Lower	56	70%
Medium	24	30%
Higher	0	0%

Among the all cases of laryngeal carcinoma, 56 (70%) cases came from lower socio-economic group.

Table V :
Personal habit

Personal Habit	No. of cases	Percentage (%)
Smoking	50	62.50
Chewing tobacco	2	2.50
Smoking & alcohol Intake	2	2.50
Smoking & Betel Leaf with jorda	24	30
None	2	3

Smoking was the commonest personal habit (62.5%) associated with laryngeal carcinoma.

Table VI
Symptoms of laryngeal carcinoma

Symptoms	No. of cases	Percentage (%)
Change of voice	74	92.50
Dysphagia	60	75.00
Respiratory Distress	42	52.50
Cough	33	41.25
Neck swelling	16	20.00
Haemoptysis	4	5.00

The commonest presenting symptoms of laryngeal carcinoma is change of quality of voice (92.5%). Dysphagia and Neck swelling as a presenting symptoms in supraglottic carcinoma.

Table VII :
Histological types

Histological Types	No. of cases	Percentage (%)
Squamous cell Carcinoma	78	97.50
Undifferentiated Carcinoma	1	1.25
Adenocarcinoma	1	1.25

In histologic type most of the cases (97.50%) were squamous cell carcinoma.

Discussion :

In discussion of clinicopathological study of laryngeal carcinoma, the fact and figures mention here may vary a large series, but still then, as the cases were collected for a period of one year from Rajshahi Medical College Hospital, this study may have credentials in reflecting certain facts regarding carcinoma of larynx. Actually there is no national level study in Bangladesh to find out the incidence of laryngeal cancer. But neighbouring country (India) is a high incidence area.⁶

Eighty patients with different age, sex and socio-economic condition studied in this series. In this series the commonest site of laryngeal carcinoma was supraglottic region 75% (60), the relative frequency of glottic carcinoma was 25% (20) and subglottic carcinoma was uncommon (Table-1). It may be due to poor oral hygiene among the population in this region. The frequency distribution of supraglottic and glottic carcinoma has got wide geographical variation and may be changing with time in the same geographical area. In two different studies in Bangladesh supraglottic were found 67% and 70%.^{8,9} This is consistent with this study. Subglottic carcinoma is a rare condition⁷.

The age range of the patients was 24 years to 85 years (Table –II). In two two different previous studies the age ranges were seen to be 37 years to 82 years, 23 years to 85 years.^{8,9} None of sample was at childhood (<15 year) which is very rare.

The overall male to female ratio was 19.1 in this series (Table- III). In a large scale study in Bangladesh showed that male to female ratio was higher (15.68 during period from 1960 to mid 1970). This result was

statistically similar to current study. This variation in aspect of age and sex may be due to less exposed to smoke and industrial hazard in this region. In this study 95% (76) of patient had habit of smoking. It has been described in different literature that tobacco and alcohol are clearly associated with increased incidence of laryngeal carcinoma.^{5,6} Significant association is found between laryngeal carcinoma and lower education group 82.5% (74) and lower socioeconomic class (Table- IV).

The commonest symptoms were a change in the quality of voice (74) 92.5% (Table-VI). Dysphasia was the second commonest symptoms in this series (60)75% (table-VI). It was significantly more common in supraglottic carcinoma. Respiratory distress was a presenting symptoms in (42) 52.5% cases (Table –VI). Other symptoms are painful condition of neck, lymphadenopathy is a feature of advanced presentation.

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