PROFILE OF CARCINOMA LARYNX PATIENTS ATTENDING A TERTIARY CARE HOSPITAL IN WESTERN ODISHA

Satyajit Mishra, Sujata Panda

1. Assistant Professor, Department of ENT, V.S.S. Medical College, Burla, Odisha.
2. Senior Resident, Department of ENT, V.S.S. Medical College, Burla, Odisha.

CORRESPONDING AUTHOR

Dr. Satyajit Mishra,
Assistant Professor,
Dept. of ENT and Head and neck surgery,
V. S. S. Medical College and hospital,
Burla, Odisha. Pin – 768017
E-mail: dr.satyajitmishra@gmail.com,
Ph: 0091 9437088951.

ABSTRACT: Carcinoma Larynx is a disease that affects people of western Odisha to a variable extent. This disease leads to high morbidity and mortality as well as a huge financial burden on the patients. We conducted a retrospective study on 82 no. of carcinoma larynx patients attending Department of E.N.T., V.S.S. Medical college hospital, Burla (Sambalpur) in western Odisha to have a knowledge data about its demographic pattern as well as clinicopathological aspects.

KEY WORDS: Carcinoma larynx, clinicopathological

INTRODUCTION: Carcinoma Larynx is a debilitating disease that leads to disruption in speech and respiration. The incidence of this disease is estimated to be 14 to 15 % of all head and neck malignancies in various studies.(1,2) In addition to the disease itself, their treatment modality too affects the quality of life of the patient. We conducted a study on the profiles of patients of carcinoma larynx attending V.S.S. Medical College, Burla- a premier tertiary care centre in Western Odisha- over a period of three years between 2006 and 2008 taking into consideration the different types of presentations, time of presentations etc. to have a broad data on this disease in this part of the country.

MATERIAL & METHODS: A review of data of 82 no. of patients of Carcinoma Larynx between the periods 2006 to 2008 attending V.S.S. Medical College, Burla were reviewed. The data from Dep't. Of Radio Therapy were also taken into account. After a thorough history and physical examinations done, the patients were put for routine investigations and specialized investigations like Direct Laryngoscopy, Upper G.I. Endoscopy, CT Scan head and neck region and M.R.I (if needed) along with pathological tests like F.N.AC, and Histopathological study.

RESULTS: Out of 33181 no. of patients coming to outpatient Dep't. Of V.S.S. Medical college Hospital, 744 were detected to have Head & Neck Malignancy and 82 of them were Carcinoma Larynx patients as shown in Table 1. The percentage of patients in relation to Head & Neck Malignancy was 11.02%.

OCCUPATION: As shown in the table below, 43.9% cases were agricultural workers followed by Industrial workers (19.5%) and housewives. As Western Odisha has got a rich population of agricultural workers, it is but natural that maximum no. of patients belong to this category.

PREDISPOSING FACTORS: Smoking is extremely prevalent in the sufferers. Tobacco chewing and Alcoholism was noted in 58.53 and 21.95% of cases respectively. Tobacco chewing and alcohol consumption both were seen in 12 (14.63%) of cases

SYMPTOMS AND SIGNS: Altered voice of an average duration of three months accounted for 97% of cases. Difficulty in deglutition and breathing accounted for 58 % and 51% of cases respectively. Neck nodes were detected in 71% cases

SITES OF INVOLVE MENT AND HISTOPATHOLOGY: Regarding sub sites of larynx involved, by the time patients presented to our institute, more than one sub sites were affected-most commonly both Supra glottis and Sub-glottis were involved. Individually, Supra glottis was the predominant site to be involved.

All the cases were put for histopathological study and 98% of them came out to be Squamous cell carcinoma

DISCUSSION: Carcinoma of larynx with its varied presentation in a single set up is not unusual. Although the symptoms affect the day to day life as well as quality of life, still patients present at a variable time after onset of symptoms.

In our setup, the incidence was found to be more than 11% of Carcinoma of larynx in relation to all head and neck malignancies. Most of the cases presented in the sixth and seventh decade of life .Martin et al and Dutta Choudhary et al have reported similar pattern.^{3,4} We found the average age of incidence for male to be 59 years, whereas for females it came to be 54 years. Males were affected quite highly (85%) than females (14%). Jose Guilherme vartanian et al (2005) had found a similar sex incidence⁵. Similar was the finding of Nasir Iqbal (2007) and Abhinandan Bhattacharjee et al (2006).¹

Although people from lower socio economic status were more prone for incidence, there was no disparity in incidence between urban and rural population. Logically, most people from Western Odisha being dependent on agriculture, the incidence is quite high (49%) in them. Most of the Indian studies (J. Bakshi et al, Hemant Ahluwalia et al) have also reported similar findings^{6,7}. Smoking is a well recognised predisposing factor of Carcinoma larynx. We found more than three fourth of our sufferers were smokers.This finding is supported by the study of Jose Guilherme Vertanian et al.⁵

As the awareness regarding carcinoma larynx as well as health related issues being not an important issue with most of the people, maximum number of patients (75%) were found to be node positive on presentation with more than 50% having N1 nodes and 9.75% being N2b nodes. Multiple sites of involvement (supraglottic and glottis) and stage 3 tumours were predominant in our study. The tumours were almost always Squamous cell carcinoma(>98%) which is a common pattern in various studies by Kelly and Cross(1968),Myerson et al(1664),Nasir Iqbal (2007) and Kohtaroh Tanaka et al (2005).^{8,9,10}

CONCLUSION: Ca larynx is a disease found more commonly in poor class people addicted to smoking and they being poorly health conscious present quite late in the hospital leading to

poor treatment outcome in them. Therefore it is desirable to educate them about this disease so that early diagnosis and treatment can make a lot of difference in the morbidity and mortality.

REFERENCE

1. Abhinandan Bhattacharjee, A. Chakraborty, P.Purkaystha. Prevalence of Head and Neck cancer in the North East an Institutional Study. Ind. Jour. OF Otolaryngology and H&N Surg. Vol. 58, No. 1,Jan-March. 2006.
2. Chandrasekhar,S.R.: Carcinoma of the pyriform fossa, Indian J. Otolaryng. 17:119,1965.
3. Martin,H.E.(1947):Quoted by Myerson(1964) (Ref. 68)
4. Dutta Choudhary, R. and Sen Gupta, B.K: A Clinicopathological study of cancer of the larynx and hypopharynx with special reference to aetiology. J. Indian M.A. 3219;352,1959.
5. Jose Guilherme vartanian, MD; Andro lopes carvalho,MD,PhD;Julia Toyota,R.N. et al: Socioeconomic effects of and risk factors for disability in longterm survivors of Head and Neck cancer. Arch.Otolaryngol Head Neck Surg. 2006;132:32-35.
6. Jaimanti Bakshi,Naresh K Panda,Suresh Sharma et al. Survival patterns in treated cases of Carcinoma Larynx in North India- A 10 year follow up study. Ind. Jour. of Otolaryng. and H&N Surg. Vol.56,No.2,April-June(2004).
7. Hemant Ahluwalia,S.C Gupta, Mangal Singh et al. Spectrum of head and neck cancer at Allhabad. Ind.Jour. of Otolaryngol. And H&N Surg.Vl.53, No.1, Jan-March,2001.
8. Kelly,W.D. and Cross,F.H.:Cancer of the Larynx.J.Laryng.82:537,1968.
9. Myerson,MC: The human larynx Charles C.Thomas, publishers springfieldIllinois

TABLE – I INCIDENCE OF MALIGNANCY LARYNX

Year	Total Patients in E.N.T. OPD	Total cases of Head and Neck Malignancy	Percentage of Head & Neck Malignancy	Total Cases of Laryngeal Carcinoma	Percentage of Ca larynx in relation to Head and Neck Malignancy
2006-2008	33181	744	2.24%	82	11.02%

Table 2 shows the the age & sex distribution of patients. The most common age group to be affected was in the 5th and 6th decade at an incidence of 39%, followed by 6th and 7th decade. The youngest case was of 35years and the oldest was of 85 years old.

Male patients far outnumbered female patients at a ratio of 6:1.

Table 2: AGE AND SEX INCIDENCE

Age group in years	Male	Female	Total	Percentage
0 -10	-	-	-	-
11-20	-	-	-	-
21-30	-	-	-	-

ORIGINAL ARTICLE

31-40	2	-	2	2.44
41-50	11	5	16	19.51
51-60	28	4	32	39.02
61-70	22	2	24	29.27
71-80	5	1	6	7.31
Above 80	2	-	2	2.44
Total	70	12	82	99.99

TABLE – 3 SOCIO- ECONOMIC STATUS

Socioeconomic Status	No. of cases	Percentage
Upper Class	6	7.32%
Middle Class	34	41.46%
Lower Class	42	51.22%
Total	82	100.0%

The above table shows that more than 50% (51.22) came from poor class and only 7.3% were rich.

HABITAT: Patients of both rural and urban were almost equally affected

TABLE-4 HABITAT

Habitat	No. of cases	Percentage
Rural	43	52.4%
Urban	39	47.6%
Total	82	100%

TABLE-5 OCCUPATION

Occupation	No. of Cases	Percentage
Agricultural Worker	36	43.9%
Labourer	4	4.88%
Office Worker	15	18.3%
Factory Worker	16	19.5%
House Wives	11	13.42%
Total Cases	82	100.0

TABLE – 6 PERSONAL HABITS

Personal Habits	No: of cases	Percentage
Non-vegetarian	53	64.6%
Vegetarian	29	35.4%
Alcoholic	18	21.95%
Non-alcoholic	64	78.05%
Smoker	62	75.61%

ORIGINAL ARTICLE

Non-smoker	20	24.39%
Tobacco Chewing	48	58.53%
Tobacco chewing and Alcoholism	12	14.63%
Betel Chewing	32	39.02%

TABLE – 7 SYMPTOMATOLOGY

Symptoms	Duration in Months				Total no of cases	Percentage
	0-3	4-6	7-12	>12		
Hoarseness of Voice	52	23	4	1	80	97.56%
Difficulty in Swallowing	36	9	3	0	48	58.54%
Difficulty in breathing	37	5	0	0	42	51.22%
Throat irritation (F.B Sensation)	45	6	5	0	56	68.29%
Pain in throat	19	3	0	0	22	26.83%
Lump in neck	24	8	5	2	59	71.95%
Ear ache	11	6	1	0	19	23.17%
Cough	42	17	2	1	62	75.61%
Weight Loss	39	12	3	4	58	70.73%
Fetor	29	-	-	-	29	35.36%
Cachexia	5	3	-	-	8	9.75
Stridor	23	-	-	-	23	28.04%

TABLE – 8 LYMPH NODE METASTASIS

Lymph node	No. of cases	Percentage
Neck nodes (Total No. of cases)	59	74.95%
Ipsilateral single node ($\leq 3\text{cm}$ (N_1))	43	52.44%
Ipsilateral single node (> 3 and $\leq 6\text{cms}$ (N_{2a}))	2	2.44%
Ipsilateral multiple nodes ($\leq 6\text{cms}$ (N_{2b}))	8	9.75%
Bilateral $\leq 6\text{cm}$ (N_{2c})	5	6%
Lymph node $> 6\text{ cms}$ (N_3)	1	1.22%

TABLE -9 HISTOPATHOLOGICAL EXAMINATION

Cytology	No. of cases	Percentage
Squamous cell carcinoma	81	98.78%
Adenocarcinoma	1	1.22%
Total	82	100%

TABLE NO -10 T-STAGING

staging	No of cases	Percentage
T ₁	12	14.63%
T ₂	16	19.51%
T ₃	45	54.88%
T ₄	9	10.98%
TOTAL	82	100%

Maximum no. of cases in our series were in T 3 stage when they came to the hospital.