

PATTERN OF NECK NODE METASTASES IN LARYNGEAL CARCINOMA

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Abstract

Background: Cancer continues to be a major health problem despite advances in medical technology for its diagnosis and treatment. Cancer of the larynx is the eleventh most common cancer in the world. Carcinoma larynx is a multifactorial disease. Smoking, betel-nut, betel-leaf chewing habit and drinking alcohol are the most important factors associated with carcinoma larynx.

Objective: To find out the patterns of neck node metastases in laryngeal carcinoma.

Methods: Observational cross-sectional study was carried out in the Department of ENT and Head Neck Surgery, Dhaka Medical College Hospital (DMCH) from January' 2018 to December' 2019. Total 100 patients diagnosed as laryngeal carcinoma with neck metastases were included in this study. Statistical analyses were carried out by using the Statistical Package for Social Sciences version 23.0 for Windows (SPSS Inc., Chicago, Illinois, USA).

Results: The mean age was found 57.8±12.7 years with range from 37 to 79 years. Males were predominant (76.0%) and females were (24.0%). Male: female ratio was 3.17:1. More than two third (68.0%) patients had supraglottis, 26.0% had glottis and 6.0% had subglottis. Supraglottic was found in 68 patients among them 27(39.7%) were T3, 18(26.5%) were T3. Glottic was found in 26 patients among them 16(61.5%) were T3, 6(23.1%) were T2, 4(15.4%) were T4a. Subglottic was found in 6 patients among them 4(66.7%) were T3 and 2(33.3%) was T2. Supraglottic was found in 68 patients among them 34(50.0%) were N1, 28(41.1%) were N2 and 6(8.8%) were N3. Glottic was found in 26 patients among them 20(76.9%) were N1 and 6(23.1%) were N2. Subglottic was found in 6 patients among them 4(66.7%) were N1 and 2(33.3%) was N2. Supraglottic was found in 68 patients, among them majority 17(50.0%) patients were found in level II of neck nodes. Glottic was found in 26 patients, among them 16(61.5%) patients were found in level III of neck nodes. Subglottic found in 6 patients, among them 4(66.7%) patient was found in level IV of neck nodes. Unilateral neck node metastasis was more common 9(96.0%) than bilateral neck node metastasis 4(4.0%), out of them single neck node metastasis 84(84.0%) is more than multiple neck node metastasis 16(16.0%). Majority 46(46.0%) patients had stage III, 38(38.0%) had stage II, 10(10.0%) had stage I and 6(6.0%) had stage IV.

Conclusion: Laryngeal carcinoma is a common clinical entity in otolaryngology practice. Male were more predominant and the highest age group was 51-60 years. Common clinical presentation was difficulty in swallowing and hoarseness of voice. In this study most common Laryngeal carcinoma was supraglottic in nature and majority of them were in level II. N1 was the most common pattern of neck node metastasis. Most of the neck nodes are unilateral and single. Stage III was the commonest stage of involvement.

Keywords: Neck node metastasis, laryngeal carcinoma, supraglottic carcinoma, glottic carcinoma, subglottic carcinoma.

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Introduction

Lymph node involvement is well established as an important prognostic factor for head and neck cancer. The spread of carcinoma of head and neck malignancy to the node levels is probably predictable according to the site of the primary. The appropriate staging of cervical lymph nodes is very important in the management of any head and neck primary carcinoma.¹ The larynx serves protective, respiratory and phonatory functions in humans. Cancer of the larynx is the common cancer of head and neck region. Cancer larynx is one of the causes of morbidity and mortality worldwide.²

Estimated new cases and deaths from laryngeal cancer in the United States in 2018: New cases: 13,150 and deaths: 3,710.³ Laryngeal cancer consists of 1.1% of all new cancers worldwide. It is the seventh most common cause of cancer in males in Indian subcontinent. The incidence of laryngeal cancer has been reported to be 1.26 - 8.18 per 100,000 population in different regions in India.⁴ About 40% of all laryngeal cancer in UK and 30% in north America are supraglottic. Conversely in North America 60% laryngeal carcinoma are glottic and in France is about 61%.⁵ But in our subcontinent supraglottic carcinoma outnumbers glottic carcinoma. In India supraglottic carcinoma is about 57%, glottic carcinoma 39%, subglottic carcinoma is only about 6%.⁶

In one study of Bangladesh it is found that out of 50 histopathologically proven laryngeal carcinoma 60% laryngeal carcinoma patients presented with regional metastases to the cervical nodes. Highest cases among laryngeal carcinoma were supraglottic carcinoma (72.0%) which also showed the highest rate of lymph node metastases (72.2%).⁷ Smoking, alcohol consumption, chewing tobacco, genetic factors, occupational factors, vitamin deficiency is the well known causative factors of laryngeal carcinoma⁸. Male are predominant and common age of presentation over 40 years⁵. Laryngeal carcinoma has high rate of cure in certain sub sites and early stage, may reach over 85% and overall exceeds 50%. Most of the failures in the treatment of laryngeal cancer are due to the delay in diagnosis can contribute to

the presentation with later stage diseases and difficulty in eradicating the loco regional disease⁹. A common phenomenon to all malignancy is their ability to metastasize. Pathophysiology of this phenomenon has been the subject of much research & investigation.^{6,10} Some tumours have the propensity to extensive local invasion without metastasis, whereas others metastasize early in their development.^{11, 12} With the exception of distant metastasis, the presence of cervical lymph node metastasis is the single most adverse independent prognostic factor in laryngeal carcinoma.^{5,13} The highest incidence of cervical lymph node metastasis is associated with supraglottic carcinoma in comparison to glottic and subglottic carcinoma. Supraglottic larynx is one of the most common primary sites for bilateral neck nodes metastasis^{11,14}. A single ipsilateral cervical lymph node metastasis decreases survival by 50% than that of the patients without metastasis. Nodal metastasis are also associated with a high rate of regional recurrence.¹⁵

So, early treatment of the primary tumour as well as lymph nodes are essential for good locoregional control & reduction of distant metastases & improved survival. Historically, case can be identified by taking comprehensive history & detail clinical examination. However, further evaluation by fine needle aspiration cytology (FNAC), imaging studies, endoscopy & biopsy is required for confirmative diagnosis and effective management. This observational cross sectional comparative study is designed to find out the pattern of neck node metastases associated with laryngeal carcinoma and their clinical staging.

Materials and Methods

This is an observational cross-sectional study which was conducted in the Department of ENT and Head Neck Surgery, Dhaka Medical College Hospital, Dhaka with a sample size of 100 from January 2018 to December 2019. All patients diagnosed as laryngeal carcinoma with neck node metastasis admitted in the Department of ENT and Head Neck Surgery in Dhaka Medical College Hospital, Dhaka were included in the study. Patients were randomly enrolled matching the inclusion and exclusion criteria.

Results

Table I

Distribution of the study patients according to age (n=100)

Age (years)	Frequency	Percentage
31-40	7	7.0
41-50	18	18.0
51-60	49	49.0
61-70	20	20.0
>70	06	6.0
Mean ±SD	56.9	±13.2
Range (min-max)	37	-79

Table I shows majority (49.0%) patients belonged to age 51-60 years. The mean age was found 57.8±12.7 years with range from 37 to 79 years.

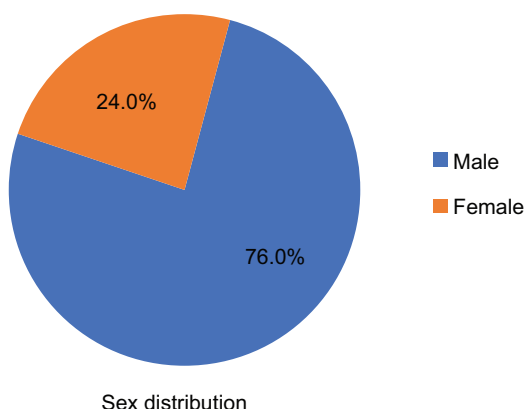


Fig.-1: Pie chart showing sex distribution of the study patients

Figure 1 shows males were predominant (76.0%) and females were (24.0%). Male: female ratio was 3.17:1.

Table II

Distribution of the study patients by occupation (n=100)

Occupation	Frequency	Percentage
Service holder	30	30.0
Farmer	38	38.0
Housewife	20	20.0
Others	12	12.0

Table II shows majority (38.0%) patients were Farmer, 30(30.0%) were service holder, 20(20.0%) were housewives and 12(12.0%) were others occupational status.

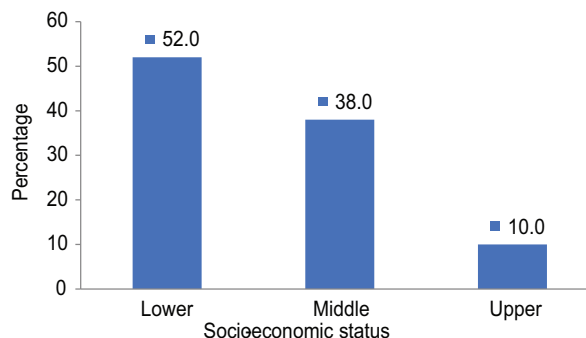


Fig.-2: Bar diagram showing socio-economic status of the study patients.

Lower (<15000 Tk/month)
 Middle (15001-30000 Tk/month)
 Upper (>30000 Tk/month)
 (Ref:- <http://azamoverseasbd.com/index.php/overview-of-bangladesh?> Accessed on: 14-12-15).

Figure 2 shows more than half (52.0%) patients came from lower income group and 38(38.0%) came from middle income group and 10(10.0%) came from upper income group.

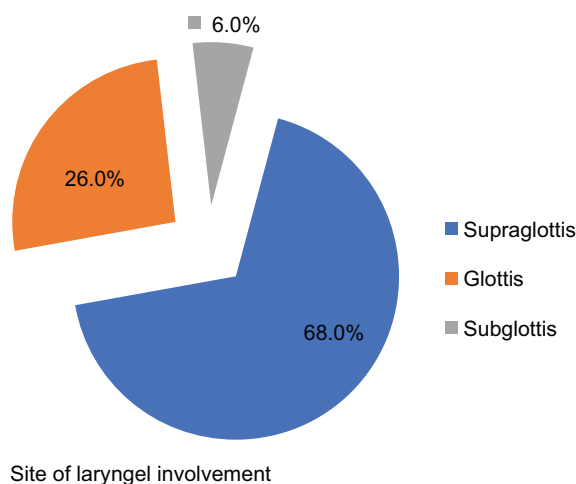


Fig.-3: Pie chart showing site of laryngel involvement of the patients.

Figure 3 shows more than two third (68.0%) patients had supraglottis, 26.0% had glottis and 6.0% had subglottis.

Table III

Distribution of the study patients according to presenting complaints (n=100)

Presenting complaints	Frequency	Percentage
Difficulty in swallowing	74	74.0
Hoarseness of voice	30	30.0
Discomfort in throat	26	26.0
Earache	18	18.0
Hemoptysis	10	10.0
Cough	08	08.0
Stridor	06	06.0

Table III shows almost three fourth (74.0%) patients had difficulty in swallowing, 30(30.0%) had hoarseness of voice, 26(26.0%) had discomfort in throat, 18(18.0%) had earache, 10(10.0%) had hemoptysis, 8(8.0%) had cough and 6(6.0%) had stridor.

Table IV

Distribution of the study patients according to primary tumour (n=100)

Site of laryngel involvement	Stage of primary tumor	Frequency	Percentage
Supraglottic (n=68)	· T1	8	11.8
	· T2	10	14.7
	· T3	27	39.7
	· T4a	18	26.5
	· T4b	5	7.4
Glottic (n=26)	· T1a	00	0.0
	· T1b	00	0.0
	· T2	6	23.1
	· T3	16	61.5
	· T4a	4	15.4
Subglottic (n=6)	· T4b	00	0.0
	· T1	00	0.0
	· T2	02	33.3
	· T3	04	66.7
	· T4a	00	0.0
	· T4b	00	0.0

Table IV shows supraglottic was found in 68 patients among them 27(39.7%) were T3, 18(26.5%) were T3. Glottic was found in 26 patients among them 16(61.5%) were T3, 6(23.1%) were T2, 4(15.4%) were T4a. Subglottic was found in 6 patients among them 4(66.7%) were T3 and 2(33.3%) was T2.

Table V

Distribution of the study patients according to size of neck nodes involvement (n=100)

Site of laryngel involvement	Status of neck node	Frequency	Percentage
Supraglottic (n=68)	· N1	34	50.0
	· N2	28	41.2
	· N2a	16	23.5
	· N2b	10	14.7
	· N2c	02	2.9
	· N3	06	8.8
Glottic (n=26)	· N1	20	76.9
	· N2	06	23.1
	· N2a	06	23.1
	· N2b	00	0.0
	· N2c	00	0.0
	· N3	00	0.0
Subglottic (n=6)	· N1	04	66.7
	· N2	02	33.3
	· N2a	01	33.3
	· N2b	00	0.0
	· N2c		
	· N3	00	0.0

Table V shows supraglottic was found in 68 patients among them 34(50.0%) were N1, 28(41.1%) were N2 and 6(8.8%) were N3. Glottic was found in 26 patients among them 20(76.9%) were N1 and 6(23.1%) were N2. Subglottic was found in 6 patients among them 4(66.7%) were N1 and 2(33.3%) was N2.

Table VI

Distribution of the study patients according to levels of neck node involvement

Levels of neck node	Frequency	Percentage
Supraglottic (n=68)		
Level II	34	50.0
Level III	14	20.6
Level IV	12	17.6
Level VI	08	11.8
Glottic (n=26)		
Level III	16	61.5
Level IV	08	30.8
Level VI	02	7.7
Subglottic (n=6)		
Level IV	04	66.7
Level VI	02	33.3

Table VII
Distribution of the neck node with number & laterality

Site	Unilateral n(%)	Bilateral n(%)	Single neck node n(%)	Multiple neck node n(%)
Supraglottic (n=68)	64 (94.2%)	4 (5.9%)	60 (88.2%)	8 (11.8%)
Glottic (n=26)	26 (100%)	0 (0.0%)	20 (76.9%)	6 (23.1%)
Subglottic (n=6)	6 (100%)	0 (0.0%)	4 (66.7%)	2 (33.6%)
Total	96(96.0%)	4(4.0%)	84(84.0%)	16 (16.0%)

Table VI shows supraglottic was found in 68 patients, among them majority 17(50.0%) patients were found in level II of neck nodes. Glottis was found in 26 patients, among them 16(61.5%) patients were found in level III of neck nodes. Subglottic found in 6 patients, among them 4(66.7%) patient was found in level IV of neck nodes.

Table VII shows unilateral neck node metastases was more common 96(96.0%) than bilateral neck node metastases 4(4.0%), out of them single neck node metastases 84(84.0%) is more than multiple neck node metastases 8(16.0%).

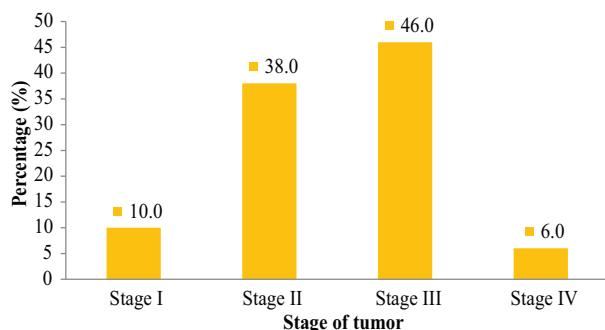


Figure 4: Bar diagram showing stage of tumor of the study patients.

Figure 4 shows majority 46(46.0%) patients had stage III, 38(38.0%) had stage II, 10(10.0%) had stage I and 6(6.0%) had stage IV.

Discussion:

This is an observational cross-sectional study conducted among the laryngeal carcinoma with neck metastases patients with a view to find out the patterns of neck node metastases in

laryngeal carcinoma. Total 100 patients diagnosed as laryngeal carcinoma with neck metastases were purposively selected and subjected to report of fine Needle Aspiration Cytology (FNAC), histopathological biopsy, ultrasonography, computed tomographic scan and magnetic resonance imaging diagnosis.

In this study observed that the majority (49.0%) patients belonged to age 51-60 years. The mean age was found 57.8±12.7 years with range from 37 to 79 years. Similar obserbation was found Chauhan et al. ² they showed the mean age at presentation in present study was 58.85±10.03 (SD) years with an age range of 37-81 years. Maximum number of cases belonged to age group 51-60 years. The next commonage group was 61 years and above. Leena et al.¹ also found the age incidence ranging from 35 years to 76 years was noted, with about 79% of patients being in the age group of 41- 65 with highest incidence in the 6th decade. Siriwardena et al.¹⁶ also supported this study observation the age ranges from 24 to 86 years with a mean age of 57.8 years. More than 50% of the cases were in the age group of 50-70 years at the time of diagnosis. Similar observation was found Koirala and Sharma ¹⁷ they showed age of the patients ranged from 40 years to 83 years with the mean age of 62.71 yrs. Forty five percent (26/57) of their patients belonged to the age range of 60-69 years. In study of Anicin and Zargi showed the mean age of the patients was 56 years (range 33-82 years).

In Kaur et al. ²⁷ studying the age distribution, the most common age group involved in this series was 51-60 years constituting 50% (25 cases) of the total 50 cases. The youngest patient in their series was 34 years while the eldest patient was 78 years.

In current study observed that the males were predominant (76.0%) and females were (24.0%). Male: female ratio was 3.17:1. Chauhan et al.² showed 65 subjects were recruited for this study; 60 males and 5 females, with a male to female ratio of 12:1. Leena et al.¹ reported there were 61 cases included in this study, where males were 52 cases and females were 9 cases. Siriwardena et al.¹⁶ there were 329 males and 136 females with a M : F ratio of 2.6 : 1. Mahfuz et al.⁹ study showed Male to female ratio was 13:1. This result differ from that of studied of other 7.5 (Haque et al.¹⁹); 8.5:1 (Raitiola et al.²⁰); 10:1 ; 9:1 (Bhowmik et al.) and 4.5:1(Siddiquee et al.²⁶). Although all other the studies revealed male predominant with carcinoma larynx.

Regarding socio-economic status more than half (52.0%) patients came from lower income group and 38(38.0%) came from middle income group and 10(10.0%) came from upper income group. Chauhan et al.³³ low socio-economic class (70%).

In this study observed that more than two third (68.0%) patients had supraglottis, 26.0% had glottis and 6.0% had subglottis. Chauhan et al.² reported 45 cases (69.23%) had supraglottis, 18 cases (27.69%) had lottis and 2 cases (3.07%) had subglottic cancer. In study of Koirala and Sharma¹⁷ Supraglottic larynx was the commonest subsite in 36/46 (78.2%), followed by glottis and subglottis respectively. Akmansu et al.²¹ have reported the incidence of supraglottic cancer to be 73.9%, followed by 13% transglottic and 13% lottis in laryngeal cancers in Turkish population. Similarly, Jaimanti and Naresh²² in a 10 year follow up of patients suffering from carcinoma larynx, found the incidence of supraglottic carcinoma was 55.94% of all laryngeal cancers followed by glottis (17.3%), transglottic (13.04%) and subglottis (3.62%). Ahsan et al.⁷ showed among 36 supraglottis cases, 26 (72.2%) cases showed metastasis. Out of 13 glottis cases, metastasis was found in 4 (30.8%) cases. In Kaur et al.²⁷ study, transglottic malignancies constituted 66% (33 cases) of the total 50 cases, while supraglottic malignancies constituted 24% (12 cases) and glottis malignancies constituted 10%

(5 cases). Anicin and Zargi¹⁸ study the most common lottistion of the primary tumours was lottis (48%), followed by supraglottic, transglottic and subglottic tumours in 41%, 8% and 3%, respectively.

In this study almost three fourth (74.0%) patients had difficulty in swallowing, 30(30.0%) had hoarseness of voice, 26(26.0%) had discomfort in throat, 18(18.0%) had earache, 10(10.0%) had hemoptysis, 8(8.0%) had cough and 6(6.0%) had stridor. Chauhan et al.² the most common presenting symptom was dysphagia (63%). Hoarseness of voice was seen in 33 cases (50.76%), neck swelling in 32 cases (49.23%), and weight loss in 49.23% case. It was compared in Kaur et al.²⁷ which revealed that hoarseness of voice was the most common symptom (100%) in both glottis and transglottic malignancies whereas difficulty in swallowing was the most common symptom (66.7%) in the case of supraglottic malignancies. 48.5% (16 cases) cases of transglottic malignancy presented with a mass in the neck as compared to 41.7% (5 cases) cases of supraglottic malignancies. Thus the overall incidence of nodal metastases in our series was 42% (21 cases). In this study supraglottic was found in 68 patients among them 27(39.7%) were T3, 18(26.5%) were T3. Glottic was found in 26 patients among them 16(61.5%) were T3, 6(23.1%) were T2, 4(15.4%) were T4a. Subglottic was found in 6 patients among them 4(66.7%) were T3 and 2(33.3%) was T2. Koirala and Sharma¹⁷ found their study out of total 31 patients of T3 stage, 28 had supraglottic malignancy. Albeit, neck node metastasis is mainly a 'supraglottic issue'. In fact, because of the profuse lymphatic network of the supraglottic larynx, carcinomas of this area metastasize frequently to the cervical lymph nodes, and failure of treatment is usually a result of metastasis rather than local disease (Lindberg²³). The incidence of patients with clinically positive lymph nodes at the time of diagnosis is 23-50% for all supraglottic sites and stages combined (Ogura et al.²⁹). A substantial number of those patients with clinically negative necks are found to have histologic disease, as demonstrated when neck dissection is performed, or, if left untreated, they

convert to clinically positive necks (Ogura et al.²⁹). In supra-glottic cancers, the probability of cervical metastasis and the probability of delayed contralateral metastasis increase in direct proportion to the size of the primary lesion (i.e., the T stage) (Jaimanti and Naresh²²). Lindberg²³ reported impressive overall metastatic rates with various supraglottic carcinomas: 63% of T1, 70% of T2, 79% of T3, and 73% of T4 cases metastasized.

In present study showed that supraglottic was found in 68 patients among them 34(50.0%) were N1, 28(41.1%) were N2 and 6(8.8%) were N3. Glottic was found in 26 patients among them 20(76.9%) were N1 and 6(23.1%) were N2. Subglottic was found in 6 patients among them 4(66.7%) were N1 and 2(33.3%) was N2. Chauhan et al.² presentation of neck nodes were observed as N0 in 28 cases (43.08%), N1 in 22 cases (33.85%), N2 in 6 cases (9.23%) and N3 in 9 of cases (13.85%). Among these 37 cases (56.92%) with nodal metastasis, 32 had supraglottic, 3 had lottis and 2 had subglottic malignancy. In study of Ahsan et al.⁷ showed N₀ was found 20(40.0%) cases followed by N1 and N2 which were 15(30.0%) cases and 13(26.0%) cases respectively. Kaur et al.²⁷ study 58% (29 cases) were found to be N₀ stage – constituted by 58.3% of the supraglottic lesions, 100% of the glottis lesions and 51.5% of the transglottic lesions. On the other hand, 42% (21 cases) were found to have a clinically positive neck at the time of presentation – 47.6% being in N 2 stage, 38.1% in N~ stage and only 14.3% being in N 3 stage. Anicin and Zargi¹⁸ study the regional in-field recurrence rate after selective neck dissections in postoperatively irradiated N2b and N1 cases was 12.5% and 8.3%, respectively. In this study observed that supraglottic was found in 68 patients, among them majority 17(50.0%) patients were found in level II of neck nodes. Glottis was found in 26 patients, among them 16(61.5%) patients were found in level III of neck nodes. Subglottic found in 6 patients, among them 4(66.7%) patient was found in level IV of neck nodes. In study of Ahsan et al.⁷ showed most frequently involved levels of the neck were level II (56.7%) and level III (33.3%). Regarding the level of neck involvement, supraglottic larynx drains mainly

to upper deep cervical nodes – level II and level III. But in palpable neck diseases, all 5 levels can be involved (Watkinson et al.⁵). Ahsan et al.⁷ reported level II nodes were involved in 16 out of 30 cases (53.3%), followed by level III where 7 out of 30 cases (25%) involved. Level IV involved in 2(6.67%) patients. No patient had isolated level I involvement in this study and level V was involved in one patient where multiple levels were involved. Overall 5 patients presented with multiple levels involvement and all 5 had supraglottic carcinoma. These findings correlate with other international studies. In one study in Italy Luca et al.³⁰ showed that level II and III were most frequently affected node in laryngeal cancer with a prevalence of 82% and 41% respectively. In that study it has been also observed that isolated metastases were found only at level II and III. In study of Kaur et al.¹⁸ showed out of the 21 cases with cervical nodal metastases at the time of presentation, levels II and III were found to be involved in 85.7% (18 cases) whereas multiple levels were involved in 71.4% (15 cases).

In this study it was observed that unilateral neck node metastasis was more common 96(96.0%) than bilateral neck node metastasis 47(4.0%), out of them single neck node metastasis 84(84.0%) is more than multiple neck node metastasis 16(16.0%). In this study majority 46(46.0%) patients had stage III, 38(38.0%) had stage II, 10(10.0%) had stage I and 6(6.0%) had stage IV. Chauhan et al.² study reported CT scan was found to be cost effective and well informative for studying the larynx prior to treatment for staging. Cancer stage T1 was found in 7 cases (10.77%), T2 in 9 cases (13.84%), T3 in 20cases (30.78%) and T4 in 29cases (44.62%).

Leena et al.¹ size of primary most of the patients presented with T3 disease (52%) followed by T2 disease (26%), T1 disease (11%) and T4 disease (11%). In Siriwardena et al.¹⁶ study, it was revealed that 43.5% and 32.8% of the patients presented to clinicians at stages 4 and 3, respectively. Koirala and Sharma¹⁷ study showed majority of the patients were of T3 stage 31/46 (67.4%) followed by T2 (7), T1 (6) and T4 (2) respectively. Pinilla et al. carried out a

retrospective study on 430 patients of carcinoma larynx from 1983 to 1993 in Spain. In their study, 58% of patients were of lottis origin while 42% were of supraglottic origin. T3 stage was the most common category (36%) followed by T4 (35%), T2 (23%) and T1 (6%). There was a direct correlation of tumor size with presence of histological neck node involvement. However Akmansu et al.²¹ reported no significant correlation to exist between T and N stages in laryngeal cancers. Ahsan et al.⁷ study observed in stage T1, the involvement of neck nodes was 14.3% cases. However stage T2, stage T3 and stage T4 were 41.2%, 81.8% and 100.0% respectively. TNM staging was done in all patients. Out of 50 patients, 7(14.0%) patients presented with T1 stage, 17(34.0%) patients in T2 stage, 22(44.0%) patients in T3 and only 4(8.0%) patients in T4 stage. Regarding neck node staging, 20(40.0%) patients presented without palpable neck node which means N0. Among the neck node positive patients, 15(30.0%) presented as N1, 13(26.0%) as N2 and only 2(4.0%) patients presented as N3. No patient was found with distant metastases, so all were M0. These features are also similar to some extent with the study of Wenjue et al.³¹, where 6.0% patients presented as T1, 31.0% as T2, 38.0% as T3 and 25.0% as T4. Relation between T stage of laryngeal carcinoma and neck node metastases was also evaluated in this study. The metastatic rate according to the T stage of the disease reflects that the frequency of lymph node metastases increased with the advancing T stage of the laryngeal carcinoma. Metastatic rate at T1 was 14.3%, at T2 it was 41.2%, at T3 81.8% and at T4 it was 100.0%.

Conclusion:

Laryngeal carcinoma is a common clinical entity in otolaryngology practice. Male were more predominant and the highest age group was 51-60 years. Common clinical presentation was difficulty in swallowing and hoarseness of voice. In my study most common Laryngeal carcinoma was supraglottic in nature and majority of them were in level II. N1 was the most common pattern of neck node metastases. Most of the neck nodes are unilateral and single. Stage III was the commonest stage of involvement.

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