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OVERVIEW OF CLINICAL PRESENTATION OF LARYNGEAL MALIGNANCY

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This original study of the clinical presentation of laryngeal carcinoma which is a very common malignancy in Head & Neck region. This detailed data-based 64 patients, observational study is conducted in ENT department Jinnah hospital / services hospital Lahore during the period of three years from.july2002 to july2005.Sixty four patients admitted with laryngeal symptoms finally diagnosed as case of laryngeal carcinoma. During last 3 years. Almost all cases (98%) presented with hoarse voice followed by throat pain / discomfort in 31%. Symptoms of breathlessness and difficult swallowing are presented by 25 % and 16% cases respectively. Stridor, an alarming symptom of upper airway obstruction, is presented by eight patients (13%).This malignancy alarms at the earliest stage by hoarse voice followed by throat pain / discomfort and breathlessness. Community education regarding immediate E N T examination in case of persistent Hoarseness, change in voice, deep throat pain, breathlessness or neck swelling for early detection of this serious ailment.

Keyworkds: *Smoking ,Hoarseness, Breathlessness, Tracheostomy.*

INTRODUCTION

Laryngeal malignancy is common in Head & Neck region. Laryngeal carcinoma is one of the most common cancers in males in Pakistan.[1] This malignancy is common in chronic smokers. World Health Organisation (WHO) reports 1.1 billion tobacco smokers in the world. Majority of these smokers (800 million) are found in the developing countries. Most of these are male (700 million). Global estimation shows that some 47% of men and 12% of women smoke.[2] Smoking predisposes to many types of cancer of upper aero-digestive tract, lungs, esophagus and urinary bladder.[3] Smoking in the developed countries, represents single most significant cause of premature death. Smokers of more than 25 cigarettes per day lose an estimated 10 years of their life. Life long smokers have a 50% chance of dying directly from tobacco related diseases. Passive exposure to non-smokers also increases the risk of cancer. Tobacco contains about 4,000 chemicals including a number of known cacinogens like nitrosamines, benzo-pyrines, nickel, cadmium, polonium-210 and naphthylamine.[2-5] These cacinogens in the smoke are responsible for metaplasia, Hyperkeratosis, dysplasia and finally malignant transformation of upper aerodigestive tract epithelial lining. These Hydrocarbons in the smoke also suppress local immune responses and predipose to malignancy. Chronic smoking and alcohal intake multiplies the process of carcinogenesis.[6,7]

Most common and alarming symptoms of this malignancy is Hoarseness. Persistent pain/ discomfort in the throat followed by dyspnoea, are also presented by most of the patients. Stridor is a late symptom by the extensive and aggressive laryngeal carcinoma blocking the airways.[6,8] Stridor is inspiratory in nature, associated with recession of suprasternal & supraclavicular spaces. Emphasis is on avoidance of smoking, pollutions, alcoholism and as well as detection of the disease at the earlier stage. Carcinoma in-situ and T-l stage is more than 95% curable by radiotherapy and conservation laryngeal surgery.[8,9]

Community health education through electronic and print media to stop smoking, alcoholism and pollution hazards. Also smoker population is continuously educated to have early medical advice in case of hoarseness of voice, persistent pain / discomfort in the throat, breathlessness, and neck masses. Both dimensions will help in reducing the incidence and early control of the disease. Early disease is having very high success rate with radiation therapy and conservation surgery.

PATIENTS AND MATHODS

Patients included in this study are selected at random in last 3 years, sixty four patients

evaluated precisely on clinical basis. This detailed data-based 64 patients observational study is conducted in ENT department Jinnah hospital / services hospital Lahore during the period of three years from July 2002 to July 2005. Sixty four patients admitted with laryngeal symptoms finally diagnosed as case of laryngeal carcinoma. All findings are recorded on a pre-designed Performa. Extent of the decease is evaluated clinically, radiologically (CT scan / MRI) and endoscopically. All findings are carefully documented and illustrated on a simple drawn diagram. Pan-endocopy and examination of neck under anesthesia is performed in each case, to look into the local as well as regional spread of the tumor. This also evaluates any simultaneously second primary in the upper aerodigestive tract.

RESULTS

Table 1. *Age Incidence.*

Youngest	20 years
Oldest	75 years
Average	57 years

Table 2: *Sex Incidence.*

All patients were Male.

Table 3: *Possible Causative Factors.*

Smoking	62	98%
Alcohol intake	6	19%

Table 4: *Presenting Complaints.*

Symptom	No. of cases	Per-centage
1. Hoarseness/change of voice	63	98%
2. Persistent pain/ discomfort in the throat	20	31%
3. Difficulty in breathing (Dyspnoea)	16	25%
4. Difficulty in swallowing	10	16%
5. Stridor	8	13%
6. Neck masses	6	9%
7. Weight loss	6	9%

Table 5: *Endoscopic Findings (Regions Involved).*

1.	Glottic region	37/64
2.	Glottic + Supraglothic region	12/64
3.	Supra Glottic region	7/64
4.	With Extra laryngeal Spread (pharynx etc.)	5/64
5.	Glottic + Subglothic region	2/64
6.	Sub Supra Glottic region	1/64

STAGING OF TUMOUR: Clinical/ CT Scan / MRI + Panendoscopy

Table 6: *Tumor size.*

Tl	45
T2	7
T3	5
T4	7

REGIONAL LEYNPHRODE INVOLMENT

N o	61/64
N1	2
N2	1
N3	0

DISTANT METASTASIS:

M o	64

RESULTS

Laryngeal malignancy is among the commonest tumors presented in the Otolaryngology Department. Most patients are in middle or old age. Average age in our study in 57 years. Almost all patients 98% were chronic heavy smokers for more than 15 years. Alcohol intake for more then 10 years is admitted by six patients. Hoarse voice was noted in the almost all (63) patients. Hoarseness which is breathy voice with breaks in the words was the main Clinical presentation. Deep throat pain and discomfort was noted in 20 patients. Difficulty in breathing followed by Stridor indicate the spread disease. Dyspnoea & Stridor was presented by sixteen & eight patients respectively. Neck swelling was noted in six patients. Weight loss was not a usual presenting

symptom. Only six patients have history of weight loss in our study.

DISCUSSION

Laryngeal carcinoma is among the ten most common cancers in males in Pakistan.[1] Almost all sufferers are chronic smokers more than 10-20 years.[2,3] Chronic alcohol intake is present in 6 patients. This study provides an insight into clinical overview of laryngeal malignancy, found commonly in head and Neck region. Smoking, alcohlism and enviromental pollution are the strong underlying factors Hydrocarbon present in the smoke are known carcinogens & Co-carcinogens. These hydrocarbons also sufferers local immune responses.[2,4,5] Most of the patients in our study are urban residents having more expoure to various types of smoke. Laryngeal growth is more aggressive in chronic smokers who were also alcoholics. Chronic smoking, alcohol intake and environmental pollution play strong role in the laryngeal carcinogens. Mean age at time of presentation is 54 years. All patents in our study are male. In Pakistani community, this disease is extremely uncommon in women. It could be because of common habit of chronic heavy smoking in mostly male gender. The profile of smoking is rapidly changing in the developed countries.

Most common and alarming symptom of laryngeal malignancy is hoarseness and change in voice (Hot potato voice). This symptom is found in 63 out of 64 patients included in this study. Throat discomfort or deep throat pain radiating to ipsilateral ear is complained by significant number of patients (20 patients in our study).[6,10] Symptom of hoaseness starts even when the vocal cord malignancy is in-situ stage.[6,11,12] Vocal cods region is more often involved as compared to supraglottic areas. But some studies also inddcate supraglottic region being more common.[13,14] Breathlessness and stridor are serious symptoms attributed to the extent and deep invasion of the disease. All patients complaining of breathlessness and stridor in our study, are found to have T3 and T4- stage tumors. Neck swelling is uncommon, found in six patients. These swellings indicate regional spread of the disease mainly in the deep cervical chain along internal Jugular vein (level 4 & 5). This regional spread is mainly involved of local adjacent cervical lymph nodes found in four patients but two have had direct spread of the disease involving extra- laryngeal spread in the laryngo-pharynx and thyroid region. Weight loss is uncommon symptom, only six patients claimed to have noticeable weight loss. The glottic region in most common site of laryngeal carcinoma found in our study followed by supraglottic region. Squmous cell carcinoma in the is the commonest histologic type of laryngeal malignancy (63 out of 64 patients).[11,14] Computed tomography and magnetic resonance imaging help to measure the local and regional spread of the disease.[15]

Pan-endoscopy is mandatory in every suspicious case of upper aerodigestie tract malignancy.[16] This provides detailed information regarding extent of the disease and biopsy specimen. Early detection of this malignancy achievies much higher cure rates with little co-morbidity.[17,18] Verrucous carcinoma is found in one patient. Incidence is 3-4% in world side literature.[19] This comprehensive clinical study provides an insight into clinical overview of laryngeal malignancy, found commonly in head and Neck region. Some important suggestions that can be highlighted from the study are:

*Aggressive multimedia campaign to limit smoking, alcoholism and control of environmental pollutions.

**Community education regarding immediate laryngeal examination in case of persistent Hoarseness, change in voice, deep throat pain, breathlessness or Neck swelling for early detection of this serious ailment.

***Multidisciplinary approach (Combined integration of Otolaryngologist, Oncologist and Radiotherapist) to manage this malignancy more comprehensively.

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