

Original Research Article

Profile of head and neck neoplasms at a tertiary care centre in North India: two years pilot study (2018-2019)

Manish Munjal^{1*}, Porshia Rishi¹, Nitika Tuli¹, Harjinder Singh¹, Shivam Talwar¹,
Salony Sharma¹, Shubham Munjal²

¹Department of ENT, ²Department of Anatomy, Dayanand Medical College, Ludhiana, Punjab, India

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*Correspondence:

Dr. Manish Munjal,

E-mail: manishmunjaldr@yahoo.com

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ABSTRACT

Background: In India 53,251 New Head and neck cancer cases are diagnosed every year. Oral cancer is the predominant subsite among both benign and malignant lesions.

Methods: A retrospective study of cases with head and neck neoplastic lesions was conducted in department of otolaryngology, head and neck surgery, Dayanand Medical College and Hospital Ludhiana during for a period of 2 years (January 2018 to December 2019). Demographic, gender profile of the patients was studied.

Results: Incidence of oral cancer was 21.5% followed by salivary glands 18.9%. among head and neck neoplasms over a period of 2 years (January 2018 to December 2019). The overall male to female ratio was 1:1.25, among benign was 1:1 and among malignant was 1:1.3.

Conclusions: Commonest subsite of benign lesions was - oral cavity followed by salivary glands and larynx. Most common malignant subsite was oral cavity followed by larynx and thyroid. Male patients outnumbered the female. Mean age of presentation varied according to subsite.

Keywords: Carcinoma, Benign, Malignant, Squamous cell

INTRODUCTION

Cancer of the head and neck is the sixth commonest cancer worldwide, with an increasing incidence in developing countries, commonest in India, Bier 2000.¹

Head and neck masses are grouped into thyroid and non-thyroid neck masses. Neoplasm accounts for 80% of non-thyroid neck masses. Of these, 80% are metastatic and 60% have primary above the clavicle, Maisel 1980.² Head and neck neoplasm can be divided into benign and malignant tumors. Benign neck swellings can be further classified into congenital and acquired, 90% of neck masses in children represent benign conditions of which 55% are congenital.

Benign tumors occur more frequently in the oral cavity than in the oropharynx whereas malignant tumors are more common in the oropharynx accounting for 70% of squamous cell carcinoma, 25% of lymphoma, 5% minor salivary glands tumours. Oropharyngeal squamous carcinoma is present in 10-15% of all head and neck tumors, Bradley et al.³

Tumours of the oral tongue accounts for 35%, floor of the mouth 30%, palate 12%, tonsil 10%, retromolar trigone 4%, and buccal mucosa 3% of all oral cavity tumors, Gloeckler et al.⁴

The aim was to study, the most common subsite and the demographic, gender profile of head and neck neoplastic lesions.

METHODS

This was a retrospective study of cases with head and neck neoplastic lesions was conducted in department of otolaryngology, head and neck surgery, Dayanand Medical College and Hospital Ludhiana during a period of 2 years (January 2018 to December 2019). Demographic, gender profile of the patients, with most common subsite was studied.

Inclusion criteria were head and neck both benign and malignant lesions on fine needle aspiration cytology and punch biopsy. Exclusion criteria were patients with head and neck lesions not consenting to biopsy and fine needle aspiration cytology.

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

All statistical calculations were done using statistical package of social sciences (SPSS) 17 version statistical program for microsoft windows (SPSS Inc. released 2008. SPSS statistic for windows, version 17.0, Chicago). Ethical approval of the study was taken from the Institutional Ethics Committee.

RESULTS

Among benign lesions oral cavity is the most common subsite followed by salivary gland and larynx. Among malignant lesions oral cavity is the most common subsite followed by larynx and thyroid.

Among oral cavity, larynx, parathyroid, nose, nasopharynx male patients outnumbered the female patient. While among hypopharynx, thyroid, salivary glands and neck mass female patients outnumbered the male.

The mean age of presentation for oral cavity and oropharynx subsite was 40 years in males and 38 years in females, for thyroid neoplasia it was 38 year in males and 55 years in females; for maxillary neoplasia it was 45 years in females; in case of hypopharynx subsite 41 years in males and 39 years in females; for parathyroid neoplasia it was 30 years in males and 32 years in females; in case of salivary gland neoplasia it was 32 years in males and 28 years in females; for nasopharynx subsite it was 35 years in males; for nose it was 40 years in males and 55 years in females) and for external auditory canal neoplasia it was 35 years in males) and 40 years in females.

Table 1: Subsite.

Site	Benign	Percentage (%)	Malignant	Percentage (%)
Oral cavity and oropharynx	17	29.8	40	70.1
Parathyroid	5	100	0	0
Larynx	11	23.4	36	76.5
Hypopharynx	3	27.2	8	72.7
Thyroid	8	27.5	21	72.4
Nose	11	73.3	4	26.6
EAC	5	100	0	0
Neck mass (occult)	4	36.3	7	63.6
Maxilla	0	0	4	100
Salivary gland	15	60	10	40
Nasopharynx	0	0	3	100
Total	79		133	

Table 2: Gender predominance.

Site of lesion	Males	Percentage (%)	Females	Percentage (%)
Oral cavity and oropharynx	42	73.6	15	26.3
Parathyroid	3	75	1	25
Larynx	42	89.3	5	10.7
Hypopharynx	4	36.3	7	63.6
Thyroid	10	34.4	19	65.5
Nose	11	73.3	4	26.7
EAC	3	60	2	40
Neck mass	3	27.2	8	72.7
Maxilla	4	100	0	0
Salivary gland	11	44	14	56
Nasopharynx	3	100	0	0

Table 3: Division according to subsites.

Variables	Cases	Percentage (%)
Oral cavity and oropharynx		
Benign	17	29.8
Malignant	40	70.1
Male	42	73.6
Female	15	26.3
Predominant age (male) years	40	
Predominant age (female) years	38	
Thyroid		
Benign	8	27.5
Malignant	21	72.4
Male	10	34.4
Female	19	65.5
Predominant age group (male) years	38	
Predominant age group (female) years	55	
Maxilla		
Benign	100	0
Malignant	4	100
Male	4	100
Female	0	0
Predominant age group (male) years	45	
Hypopharynx		
Benign	3	27.2
Malignant	8	72.7
Male	4	36.3
Female	7	63.7
Predominant age group (male) years	41	
Predominant age group (female) years	39	
Parathyroid		
Benign	5	100
Malignant	0	0
Male	3	75
Female	1	25
Predominant age group (male) years	30	
Predominant age group (female) years	32	
Salivary glands		
Benign	15	60
Malignant	10	40
Male	11	44
Female	14	56
Predominant age group (male) years	32	
Predominant age group (female) years	28	
Nasopharynx		
Benign	0	0
Malignant	3	100
Male	3	100
Female	0	0
Predominant age group (male) years	25	
Predominant age group (female) years	-	
Nose		
Benign	11	73.3
Malignant	4	26.6
Male	11	73.3
Female	4	26.6
Predominant age group (male) years	40	

Continued.

Variables	Cases	Percentage (%)
EAC		
Benign	5	100
Malignant	0	0
Male	3	60
Female	2	40
Predominant age group (male) years	35	
Predominant age group (female) years	40	

DISCUSSION

Cancer of the head and neck is the sixth commonest cancer worldwide, with an increasing incidence in developing countries, commonest in India, Bier 2000.¹ In this study oral cavity was the most common subsite of benign lesions followed by salivary glands and larynx. Among malignant lesions oral cavity was the most common subsite followed by larynx and the thyroid.

The most common subsites included the larynx 30.37% (n=188), lips and oral cavity 29.08% (n=180), pharynx 20.03% (n=124) and salivary glands 10.94% (n=68) in the study on head and neck neoplasms by Stoyanov et al.⁵ Overall male patients 166 (78.3%) outnumbered the female in this study.

In a study undertaken by the Indian council of medical research (ICMR) 1988, 66-95% cases with head and neck cancers were males. Alam et al in their study on head and neck neoplasms too stated male: female ratio as 16:1.⁶

Among oral cavity, larynx, parathyroid, nose, nasopharynx male patients outnumbered the female while female gender predominated in the region of hypopharynx, thyroid, salivary glands.

Miyashi et al found maximum number of patients of head and neck neoplasia worldwide were above 50 years of age.⁷ Agriris et al reported that most of the patients of head and neck neoplasia in india were in the age group of 50-70 years.⁸

CONCLUSION

Commonest subsite of benign lesions was oral cavity followed by salivary glands and larynx. Most common malignant subsite was oral cavity followed by larynx and thyroid. Male patients outnumbered the female. Mean age of presentation varied according to subsite.

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