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Original Research Article

Oral cancer profile in a tertiary care center

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ABSTRACT

Background: Head and neck cancers constitute around 5-50% of all cancers worldwide. Head and Neck Cancers constitute about 30% of all cancers that are found in India. It is the 8th most common cancer in the world. Oral cancer forms a major public health issue in India due to its rising incidence, especially in women and in younger age group. The purpose of our study was to evaluate, the epidemiologic profile of patients with oral cancer, its incidence according to age and sex, site distribution, risk factors involved and clinical stage at presentation.
Methods: It is a prospective study done from January 2014 to November 2014, in a total of 100 patients in age group 21 to 70 years, irrespective of gender, with a proven malignancy confined to the oral cavity. Patients were observed for the age and sex distribution, tumour staging, location and metastasis, commonly associated risk factor and most common site.
Results: Oral cavity cancers were more common in males, than females. It is most prevalent in age group of 51-60 years. Oral tongue is the most common site. Betel nut chewing is the most significant risk factor associated with oral cavity cancer.T1 and T2 is the most the most common primary T stage. Neck metastasis occurs most commonly at N2 stage. Most common neck node level involved is level 2.
Conclusions: Oral cancers presents at advanced stage and age. It has also been seen in younger generations, which is due to increasing use of tobacco, its related products and alcohol. We see patient's reports at advanced age and stage, which is increasing the morbidity and mortality related to oral cancers. Hence, today there is great need to create awareness about oral cancers. Preventive strategies must be designed in order to lessen the burden of Oral cancers.

Keywords: Oral cancer, Risk factors, Prevention

INTRODUCTION

Head and neck cancers constitute to about 5–50% of total cancers in the world.[1] In India, head and neck cancers constitute about 30% of all cancers, and oral cancer is one of the most common, cancers found in head and neck region.[2] It is the 8th most common cancer in the world.[3] Asian countries like Sri Lanka, India, Pakistan and Bangladesh where tobacco chewing is a common practice have a very high incidence of oral cancer, oral cancer is the most common cancer in men in India.[4]

Oral cancer forms a major public health issue in India due to its rising incidence, especially in women and in younger age group. Oral cancers have multiple risk factors.[5] Smoking, tobacco/quid chewing, and alcohol consumption are widely considered to be major preventable risk factors. In addition, alcohol and tobacco use has been found to have synergistic effects in various studies.

The purpose of our study was to evaluate, the epidemiologic profile of patients with oral squamous cell carcinomas as to determine, its incidence according to

age and sex, site distribution, frequency of risk factors involved and clinical stage at presentation.

METHODS

A total of 100 consecutive patients with a histologically proven squamous cell carcinoma confined to the oral cavity were chosen from patients presenting to the department of otorhinolaryngology, GGS medical college and hospital, Faridkot.

This was a prospective study done from January 2014 to November 2014 in which, patients were observed for the age and sex distribution, tumour staging, location and metastasis. Most commonly associated risk factors associated with oral cavity cancer and most common site in the oral cavity.

Inclusion criteria

Age group 21 to 70 years, primary confined to oral cavity, and histopathologically proven malignancy.

Exclusion criteria

Primary not confined to oral cavity , previously irradiated patients, and previously operated patients without the written consent.

RESULTS

Oral cavity cancers were more common in males (81%), than in females (19%). It is most prevalent in age group of 51-60 years (45%), followed by 41-50 years (25%), and followed by 61-70 years (24%), 31-40 years (4%), and 21-30 (2%). Oral tongue was the most common site (39%), mandibular alveolus (30%), buccal mucosa (23%), hard palate and floor of mouth (4%) each. Betel nut chewing was the most significant risk factor present in (80%) patients, while alcohol + smoking in (10%), alcohol only and smoking only in 5% each. T1 and T2 was the most the most common primary T stage (28%) each followed by T3 (26%) and T4 (18%). Neck metastasis occurs most commonly at level 2(50%), level 1 (20%), level 3 (14%), level 4 (5%). N2 stage was most common stage of presentation (67%), N1 (20%), N0 (11%), N3 (2%).

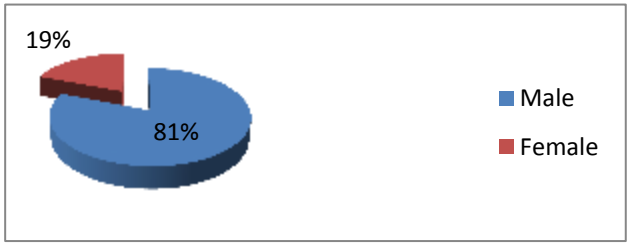

Figure 1: Sex distribution.

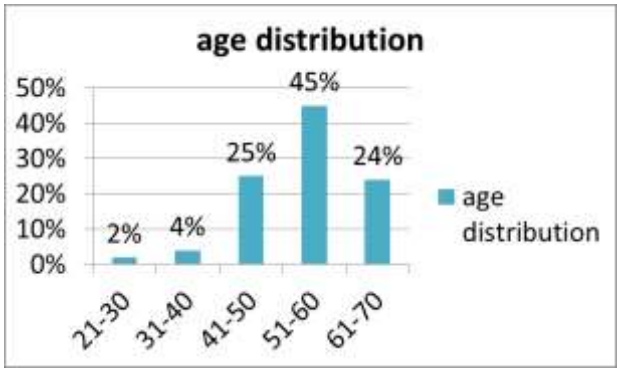

Figure 2: Age distribution.

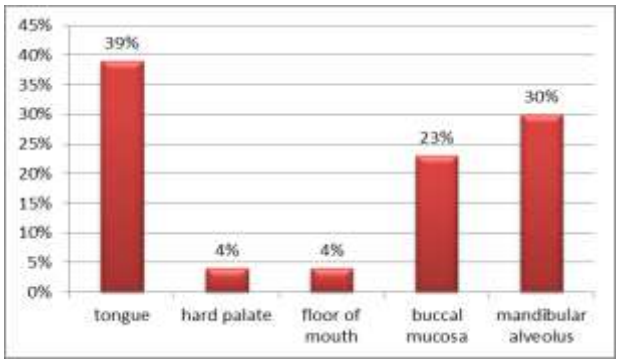

Figure 3: Site distribution.

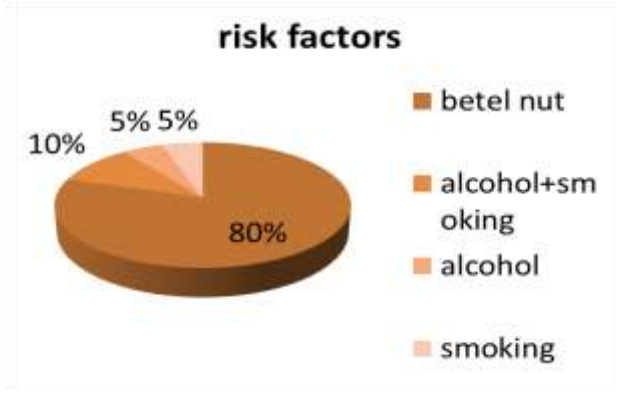

Figure 4: Risk factors.

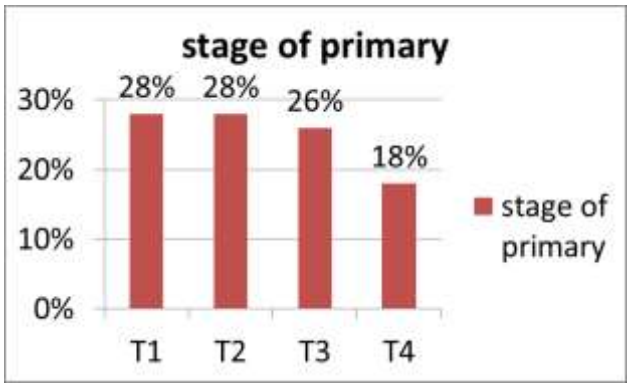

Figure 5: T stage of primary tumour.

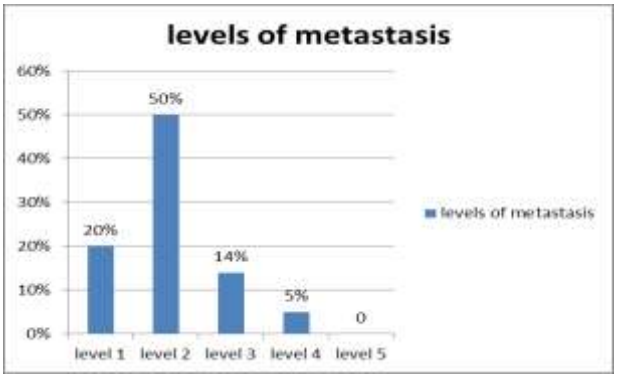

Figure 6: Levels of metastasis.

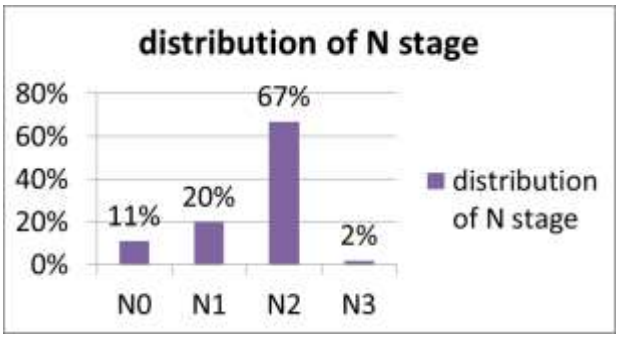

Figure 7: Distribution of N stage.

DISCUSSION

There is a very high prevalence of oral cancer in this region of Punjab, this study was undertaken in the department of otorhinolaryngology, at GGS medical college and hospital, Faridkot to determine, its incidence according to age and sex, site distribution, frequency of risk factors involved and clinical stage at presentation.

This study was carried out on 100 patients. The age group most commonly observed was of 51-60 years (45%) followed by 41-50 years (25%) followed by 61-70 years (24%). Our study is according to the study conducted by Mehrotra et al and Hasan et al, in all these studies maximum patients were from similar age group (51-60 years).[6,7]

In our study, 81% of patients were males and 19% were females which are slightly different from study conducted by Hasan et al, they observed 73% patients were males and 27 % were females.[7] Similarly, Bhattacharya et al, in their study observed male constituted 74% of all patients, while females constituted 26% of all patients.[8] This is due to the fact that males were more exposed to tobacco and alcohol.

Anterior 2/3rd of the tongue is the most common site of primary tumor (39%) followed by mandibular alveolus (30%), buccal mucosa (23%), hard palate and floor of mouth (4%) each. Our study corroborates the finding of Shiboki et al, Garzino et al, who concluded tongue to be the most common site in oral cavity (22-39%) in their studies.[9,10]

Oral cavity cancer was most strongly associated with betel nut or tobacco chewing habits which was present in 80% patients followed by patients with combined alcohol and smoking in 10% patients, alcohol only and smoking only was present in 5% patients each. Our study is supported by study done by Znaor et al and Muwonge et al, who concluded tobacco chewing as major risk in developing oral cavity cancers.[11,12]

In our study, most common primary stage of presentation is T1 and T2 stage (28%), followed by T3 (26%) and T4 (18%).

In our study most common N stage was at N2 stage (67%), followed by N1 (20%), N0 (11%) and N3 (2%), which is in contrast to the study conducted by Li et al , who showed majority of nodal metastasis at early stage i.e., N1, while the most common level involved was level 2.[13]

CONCLUSIONS

We conclude oral cancers patients most commonly presents at advanced stage and at advanced age, which is most probably due to lack of awareness and lack of early self-reporting by patient. Most alarming is its rising appearance in younger generations, this is due to increasing use of tobacco (betel nut), its related products and alcohol. Tobacco chewing has become very common in Indian youth. We see patients mostly reports to healthcare practitioners at advanced age and stage, which is increasing the morbidity and mortality related to oral cancers. Hence, today there is great need to create awareness about oral cancers, especially among youth. Various media like mass media, theatrical advertisement, national camps, and communication by doctors, advertisement by bollywood stars and various other methods may be utilized to create national awareness of oral cancer. Preventive strategies must be designed in order to lessen the burden of Oral cancers. Which includes primary preventive strategies (risk factor modification), secondary preventive strategies (early diagnosis and treatment) and tertiary preventive strategies-improved outcomes and prevention of recurrences?

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Ethical approval: The study was approved by the Institutional Ethics Committee

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