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Original Research

A Hospital-based retrospective study to analyze clinicopathological features of Oral Squamous Cell Carcinoma

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ABSTRACT:
Background: Oral squamous cell carcinoma (OSCC) ranks among the top three cancers in India. The present study was conducted to assess the clinico-pathological findings in patients with OSCC. **Materials & methods:** The present retrospective study comprised of 142 cases of OSCC of both genders. All the cases were classified on histopathological basis into Well-differentiated, moderately-differentiated and poorly differentiated OSCC. **Results: O**ut of 142 patients, males were 92 while females were 50. Age group 20-40 years had 30 males, 12 females, 40-60 years had 36 males and 28 females and >60 years had 26 males and 10 females. The difference was significant (P<0.05). 82 cases were well-differentiated OSCC, 47 were moderately differentiated and 13 cases were poorly differentiated OSCC. The difference was significant (P< 0.05). 42 cases were of tongue, 39 were of floor of mouth, buccal mucosa 25, gingiva 17, palate 11 and retromolar pad 8. The difference was non- significant (P> 0.05). Significant results were obtained while assessing the clinic-pathologic distribution of OSCC cases. **Conclusion:** Authors found that OSCC is increasing day by day. Tobacco habit is the main cause. There is varied clinical and histological profile among patients. .
Key words: Clinico-pathologic, Oral squamous cell carcinoma, Tobacco

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INTRODUCTION

Oral squamous cell carcinoma (OSCC) ranks among the top three cancers in India and is the eighth most common cancer worldwide. OSCC primarily occurs in males in their 5th–8th decades of life. However, based on recent studies in Europe and the rest of the world, an increase in the incidence has been observed in younger adults including females with no history of tobacco or alcohol consumption.[1]

Oral cancer affects males more frequently than females, although the ratio is equalizing, and in recent times, increased number of cases is being reported in elderly females as well as young females. It predominantly affects middle-aged and older persons. However, the incidence of OSCC in persons under the age of 45 is increasing.[2] The etiology of oral cancer is multifactorial with the most important risk factors being tobacco, excess consumption of alcohol, and betel-quid usage. However, several studies in recent times report surprising increase in oral cancer in patients, often with no significant tobacco and alcohol exposure.[3]

Delay in diagnosis is also frequent which could be correlated to patient delay (in looking for professional care), professional delay or both. Thus, knowledge of the varied presentation and an experienced eye can go a long way in preventing the high morbidity and mortality associated with OSCC.[4] The present study was conducted to assess the clinico-pathological findings in patients with OSCC.

MATERIALS & METHODS

The present retrospective study comprised of 142 cases of OSCC of both genders. Ethical approval was obtained from institutional ethical committee.

Patient information such as name, age, gender etc. was retrieved from case history performa. The clinical findings of all patients were looked for. Habit of tobacco usage was also recorded. Patients were classified based of WHO classification into well-differentiated, moderately-differentiated and poorly differentiated OSCC. Results thus obtained were subjected to statistical analysis. P-value of less than 0.05 was taken as significant.

RESULTS

We found that out of 142 patients, males were 92 while females were 50. Age group 20-40 years had 30 males, 12 females, 40-60 years had 36 males and 28 females and >60 years had 26 males and 10 females. The difference was significant (P<0.05). 82 cases were well-differentiated OSCC, 47 were moderately differentiated and 13 cases were poorly differentiated OSCC. The difference was significant (P< 0.05). 42 cases were of tongue, 39 were of floor of mouth, buccal mucosa 25, gingiva 17, palate 11 and retromolar pad 8. The difference was non- significant (P> 0.05). Significant results were obtained while assessing the clinic-pathologic distribution of OSCC cases.

Table 1: Age & Gender wise distribution of patients

Age group (Years	Males	Females	P value
20-40	30	12	0.01
40-60	36	28	
>60	26	10	

Table 2: Tumor differentiation

Grading	Number	P value
Well-differentiated	82	0.01
Moderately differentiated	47	
Poorly differentiated	13	

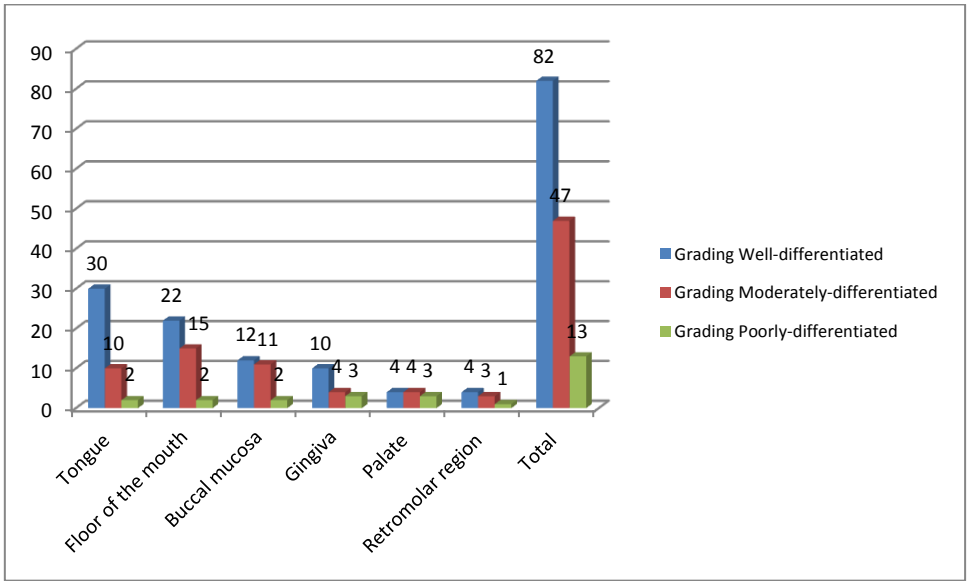
Table 3: Clinical location

Location	Number	P value
Tongue	42	0.21
Floor of the mouth	39	
Buccal mucosa	25	
Gingiva	17	
Palate	11	
Retromolar region	8	

Table 4: Clinico-pathologic correlation

Location	Grading			Total	P value
	Well-differentiated	Moderately-differentiated	Poorly-differentiated		
Tongue	30	10	2	42	0.12
Floor of the mouth	22	15	2	39	
Buccal mucosa	12	11	2	25	
Gingiva	10	4	3	17	
Palate	4	4	3	11	
Retromolar region	4	3	1	8	
Total	82	47	13	142	

Graph I Clinico-pathologic correlation



DISCUSSION

Oral squamous cell carcinoma (OSCC) is the most common form of carcinoma of oral cavity In India, OSCC remains a major public health concern where the consumption of tobacco in various forms is the cause of high prevalence.[5] The use/consumption of tobacco in India varies in different geographical locations with chewing of betel-quid with or without tobacco being the most common form. In the south coastal region of India, chewing pan, use of commercial tobacco products, beedi (local type of cigarette), cigarette-smoking, alcohol-drinking and use of snuff are some of the common habits. Among these, chewing pan is a fairly common social habit, particularly in the female population, as men smoke more often than chew tobacco.[6] The present study was conducted to assess the clinico-pathological findings in patients with OSCC.

In this study out of 142 patients, males were 92 while females were 50. Age group 20-40 years had 30 males, 12 females, 40-60 years had 36 males and 28 females and >60 years had 26 males and 10 females. Abdullah et al[7] found that a total of 420 patients were treated for OSCC, of which 86 (20.5 %) patients were of buccal mucosa.

We found that 82 cases were well-differentiated OSCC, 47 were moderately differentiated and 13 cases were poorly differentiated OSCC. The difference was significant (P< 0.05). 42 cases were of tongue, 39 were of floor of mouth, buccal mucosa 25, gingiva 17, palate 11 and retromolar pad 8.

Tondon et al[8] found that ninety eight biopsies diagnosed as OSCC. The clinical and histopathological features were assessed. Male to female ratio was 3.26:1. Mean age was 51.35 ± 14.39 years and 55.35 ± 8.87 years in males and females, respectively. The most common site of occurrence was buccal mucosa and gingivo-buccal sulcus (GBS). Most of the cases (66.32%) were well-differentiated OSCC. In most of the cases (66.32%) the diagnosis was made within 2-6 months of onset of symptoms.

In this study, significant results were obtained while assessing the clinic-pathologic distribution of OSCC cases. Kowalski et al[9] found that most common site was buccal mucosa (27.9%) followed by tongue and floor of the mouth. A total of 47 (54.65%) patients were either habitual chewers, smokers, or alcoholics. Pathological grading of cases classified tumors into well differentiated (34.88%), moderately differentiated (46.51%) and poorly differentiated (4.65%).

CONCLUSION

Authors found that OSCC is increasing day by day. Tobacco habit is the main cause. There is varied clinical and histological profile among patients.

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