Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr ICV 2018= 82.06 UGC approved journal no. 63854

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

Evaluation of cases of Squamous cell carcinoma - A clinico- histopathological study

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***ABSTRACT*:**

Background: Squamous cell carcinoma is most common oral cancer. The present study was conducted to assess the cases of squamous cell carcinoma in adult population. **Materials & Methods:** This study was conducted on 230 SCC patients. Patient data such as name, age, gender, location and histopathological findings were recorded. **Results:** Out of 230 patients, males were 140 were and females were 90. The most common site was seen on tongue in both males (38) and females (26), floor of mouth in males (24) and females (15), tongue in males (38) and females (26), lips in males (18) and females (10), palate in males (6) and females (5), buccal mucosa in males (25) and females (20) and other sites in males (22) and females (10). The difference was significant ($P < 0.05$). 120 cases were of well differentiation, 80 moderately differentiation and 30 were poorly differentiation. The difference was significant ($P< 0.05$). **Conclusion:** Squamous cell carcinoma is most prevalent oral cancer. Most common site was tongue and buccal mucosa.

Key words: Squamous cell carcinoma, gingival, palate.

Received: 20 August, 2019 Revised: 28 August, 2019 Accepted: 29 September, 2019

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This article may be cited as: Malik AR, Grover N. Evaluation of cases of Squamous cell carcinoma - A clinico- histopathological study. J Adv Med Dent Scie Res 2019;7(10): 21-23.

INTRODUCTION

Oral cancer is 6th to 8th most common cancer around the world. This incidence varies in the most and the least developed regions.[1] Squamous cell carcinoma (SCC), also known as squamous cell cancer, is cancer that begins from squamous cells, a type of skin cell. It is one of the main types of skin cancer. Cancers that involve the anus, cervix, head and neck, and vagina are also most often squamous cell cancers.2

According to WHO report in 1983, oral cancer is the most common cancer in South East Asia. In India, the incidence of oral cancer is 30–50% of whole body tumor. In Sri Lanka, it forms 30% of all cancers in males and in Pakistan oral cancer is responsible for one-third of all cancers (WHO, 1984), whereas in the UK and USA, oral cancer accounts for only 2% of all malignancies.[3]

The etiology of oral squamous cell carcinoma (OSCC) in individuals without a history of drinking and/ or smoking is unclear. In addition, it has recently been observed a higher proportion of females aged over 70 years old, particularly among alcohol and tobacco non-users, with a smaller tumor size and location in non-lingual sites.[3] A viral association has been referred to the development of OSCC for this particular group (tobacco and alcohol non-users), such as papilloma virus (HPV), especially HPV-16 and HPV-18. The lesion caused by SCC is often asymptomatic.[4] The present study was conducted to assess the cases of squamous cell carcinoma in adult population.

MATERIALS & METHODS

This study was conducted in the department of Oral Pathology & Microbiology. It comprised of 230 patients of both genders. Patients were informed regarding the study and consent was obtained. Ethical clearance was taken prior to the study.

Patient data such as name, age, gender, location of SCC, etiology etc was recorded. Results thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total - 230		
Gender	**Male**	**Female**
Number	140	90

Table I shows that out of 230 patients, males were 140 were and females were 90.

Table II Site of occurrence

Site	Males	Females	P value
Gingiva	7	4	0.05
Floor of mouth	24	15	
Tongue	38	26	
Lips	18	10	
Palate	6	5	
Buccal mucosa	25	20	
Other sites	22	10	
Total	140	90	

Table II, Graph I shows that most common site was seen on tongue in both males (38) and females (26), floor of mouth in males (24) and females (15), tongue in males (38) and females (26), lips in males (18) and females (10), palate in males (6) and females (5), buccal mucosa in males (25) and females (20) and other sites in males (22) and females (10). The difference was significant (P < 0.05).

Graph I Site of occurrence

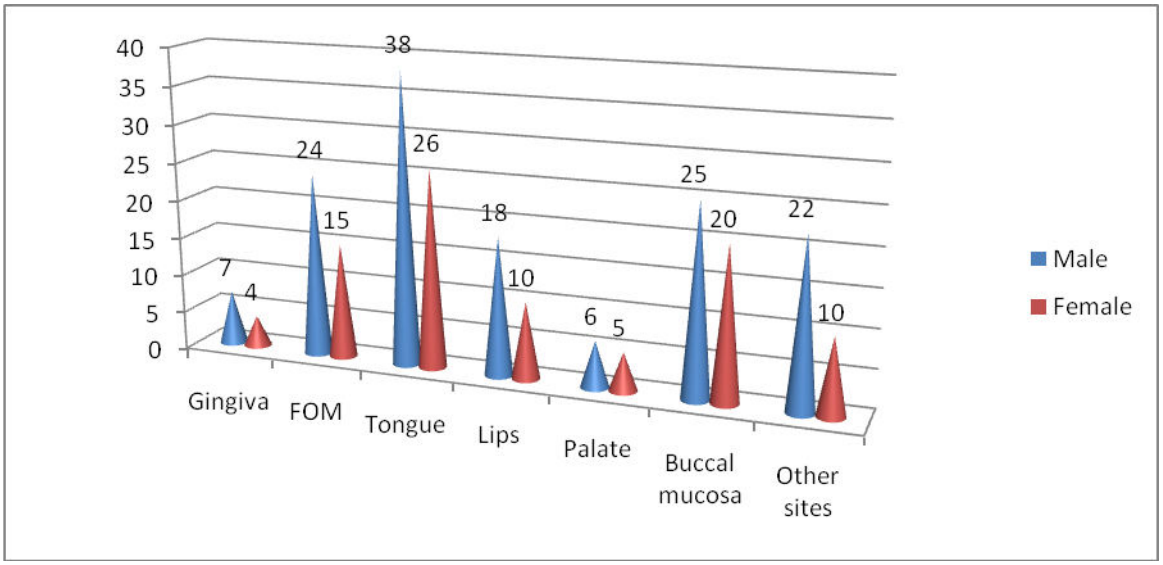

Table III Histopathological findings

Findings	Number	P value
Well differentiation	120	0.01
Moderately differentiation	80	
Poorly differentiation	30	

Table III shows that 120 cases were of well differentiation, 80 moderately differentiation and 30 were poorly differentiation. The difference was significant (P< 0.05).

DISCUSSION

The common site of SCC is esophagus, urinary bladder, prostate, and lung are other possible sites. It includes cancer of the lip and oral cavity, buccal mucosa, gingiva, hard palate, tongue and floor of mouth and is considered as the fifth most common type of cancer worldwide. It has been suggested that the main risk factors associated with oral cancer are smoking and alcohol consumption.[5] The clinical appearance is highly variable. Ulcer or reddish skin plaque that is slow growing, intermittent bleeding from the tumor, especially on the lip. Usually the tumor presents as an ulcerated lesion with hard, raised edges. The tumor may be in the form of a hard plaque or a papule, often with an opalescent quality, with tiny blood vessels.[6] The tumor can lie below the level of the surrounding skin, and eventually ulcerates and invades the underlying tissue. The tumor commonly presents on sun-exposed areas.[7] The present study was conducted to assess the cases of squamous cell carcinoma in adult population.

In present study, out of 230 patients, males were 140 were and females were 90. Toner M et al[8] found that fifty (50) patients with oral squamous cell carcinoma were included in the study. Specimen of 35 non-metastatic tumors was compared with 15 metastatic cases. All of the patients were graded to TNM, Broder's and Anneroth's system. TNM is clinical assessment and Broder's is based on only differentiation of cells. On the other hand, six parameters of Anneroth's gives a detail about the morphology of the tumor, invasion criteria in the host tissue and show its correlation with lymph node metastasis. Scoring system of Annearoth's grading indicates demarcation points of worseness of tumor and signifies the possibility of lymph node metastasis.

Both Anneroth's (P=0.002) and Broder's grading (P=0.012) have been significant but Anneroth's one is more significant then Broder's.

We found that most common site was seen on tongue in both males (38) and females (26), floor of mouth in males (24) and females (15), tongue in males (38) and females (26), lips in males (18) and females (10), palate in males (6) and females (5), buccal mucosa in males (25) and females (20) and other sites in males (22) and females (10).

Oral SCC may take various clinical forms. It may resemble a leukoplakia, a verrucous leukoplakia, an erythro-leukoplakia, or an erythroplakia, any of which may eventually develop into a necrotic looking ulcer with irregular, raised indurated borders, or into a broad based exophytic mass with a surface texture which may be verrucous, pebbled or relatively smooth. When traumatized, oral SCC bleeds readily and often becomes superficially secondarily infected.[11] Oral SCC is usually painless unless it is-secondarily infected. Large lesions may interfere with normal speech, mastication or swallowing.[9]

We found that 120 cases were of well differentiation, 80 moderately differentiation and 30 were poorly differentiation. Andisheh-Tadbir et al[10] in their study found that according to Broder's grading,on the basis of only one parameter, i.e. nuclear polymorphism, 44.0% cases were found to be in G-1, 46.0% were in G-II and 10.0% cases were in G-III. With six morphological parameters (tumor cell population and tumor-host relationship) Anneroth's classification graded 52.0% cases as G-I, 46.0% as G-II and 2.0% cases as G-III. It may be noted that all three systems graded same samples.

CONCLUSION

Squamous cell carcinoma is most prevalent oral cancer. Most common site was tongue and buccal mucosa.

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