

## CASE REPORT

### Oral Squamous Cell Carcinoma of Buccal Mucosa: A Case Report

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#### ABSTRACT:

Oral squamous cell carcinoma (OSCC) is the most common oral malignancy, representing up to 80-90% of all malignant neoplasms of the oral cavity. Despite this mean incidence, it can represent the most common location for cancer in some specific regions, especially in southeastern Asia. In the present article, we have reported the case of a 52 year old male patient who reported with a non-healing ulcerative lesion of the buccal mucosa and was histopathological diagnosed with well differentiated OSCC.

**Key words:** Buccal mucosa, Oral squamous cell carcinoma

Received: 17 May, 2019

Revised: 22 May, 2019

Accepted: 27 May, 2019

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**This article may be cited as:** Bajaj G. Management of Avulsed Tooth with fibre Splinting- A case report. Int J Res Health Allied Sci 2019; 5(2):99-101.

#### INTRODUCTION

Oral cancer includes a group of neoplasms affecting any region of the oral cavity, pharyngeal regions and salivary glands. However, this term tends to be used interchangeably with oral squamous cell carcinoma (OSCC), which represents the most frequent of all oral neoplasms. It is estimated that more of 90% of all oral neoplasms are OSCC. The greatest risk factor for oral cancer in the western world is the use of tobacco and alcohol. Although the risk factors are independent, their action seems to be combined.<sup>1-3</sup> Tobacco smoking is associated with 75% of all cases of oral cancer. Major etiological and predisposing factors for OSCC include mostly smoking and drinking habits, and ultraviolet radiation (specifically for lip cancer), but several other factors such as human papillomavirus (HPV) and Candida infections, nutritional deficiencies and genetic predisposition have been also associated. OSCC is a disease of adults and elderly and its most common clinical aspect is an ulcerated lesion with necrotic central area surrounded by elevated rolled borders.<sup>4-6</sup> Hence; we have presented the case report of a 52 year old male patient who presented with OSCC of buccal mucosa.

#### CASE REPORT

A 52 year old male patient reported with the chief complaint of non-healing ulcerative growth since 5 months. The lesion displayed alarming growth over a three week period. The lesion was painful while eating. On examination the patient showed a symmetric face and normal skin color, motor and sensory cranial nerve functions were within normal range. No lymph nodes were palpable in his neck on both sides. Clinically, the maximum mouth opening was 11 mm, ulceration was observed in the left buccal mucosa, and a firm mass could be palpated on the skin of the left cheek. An incisional biopsy was taken and sent for histopathologic examination. On histopathologic examination, diagnosis of well-differentiated oral squamous cell carcinoma was confirmed.

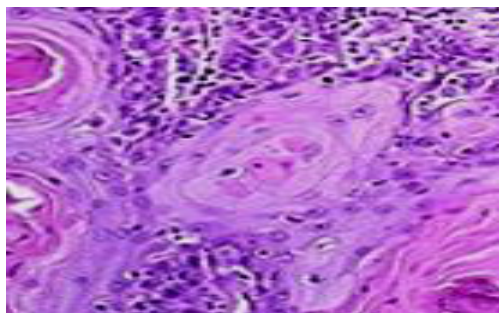
#### DISCUSSION

Most oral cancer is oral squamous cell carcinoma (OSCC) – a disease found particularly in low income communities and mainly a problem of older men, 90% being in the over 45-year-age group who are exposed to the known risk factors of tobacco and/or alcohol. Clinically, OSCC

includes lip cancer, which accounts for the majority of OSCC and intra-oral cancer.<sup>7</sup>

The cell of origin of OSCC is the oral keratinocyte, in which DNA mutation can be spontaneous, but mutagens increase the mutation rate. Genetic variation in the xenobiotic metabolising enzymes (XME), which influence carcinogen (cancer-causing chemical) metabolism, DNA repair mechanisms and other protective mechanisms may well help explaining differing susceptibilities to the OSCC – causing effects of the risk factors such as tobacco and alcohol.<sup>8,9</sup>

A 52 year old male patient reported with the chief complaint of non-healing ulcerative growth since 5 months. The lesion displayed alarming growth over a three week period. The lesion was painful while eating. On examination the patient showed a symmetric face and normal skin color, motor and sensory cranial nerve functions were within normal range. No lymph nodes were palpable in his neck on both sides. People who use both alcohol and tobacco are at especially high risk of developing oral cancer due to synergistic effects because the dehydrating effect of alcohol on cell membranes enhances the ability of tobacco-associated carcinogens to permeate the mouth tissues; in addition, nutritional deficiencies associated with heavy drinking can lower the body's natural ability to use antioxidants to prevent the formation of cancer.<sup>10</sup>



**Figure 1:** Histopathological section

In India, besides betel-quid chewing, trends of alcohol consumption show an increasing intake in recent decades, a sign of the westernisation of cultural habits that influence OSCC incidence. Smoking and drinking are both inversely related to socio-economic status. Financially deprived people have difficulties having a diet rich in fresh vegetables and fruit, reported as a protective factor.<sup>10</sup>

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for early diagnosis, particularly among patients who use tobacco or alcohol in any form.<sup>11</sup>

In general, primary RT and chemotherapy without surgery treated in the early stage of disease to avoid anticipated function and cosmetic defect, unrespectable diseases, high operative risk patients due to co-morbidity or poor performance status and patient's preference.<sup>11, 12</sup>

Singhania V et al analyzed their experience with the management of carcinoma of buccal mucosa; associated clinical presentation, outcomes and prognostic factors. A retrospective chart review was performed of all cases of primary buccal mucosa carcinoma treated surgically between years 2008 and 2012 in SDM Craniofacial Unit, Karnataka, India. All cases were analyzed based on patient characteristics, clinical presentation, surgical and adjuvant therapy rendered and treatment outcomes. A retrospective chart review was carried out using the hospital's data base for the same. The significant variables in univariate analysis were: Overall stage, T-stage (T1/T2 vs. T3/T4) and nodal status (N0 vs. N+). We found that staging, tumor size and nodal status were significant prognostic factors for DFS. The strong influence of overall disease stage, tumor size, nodal status, final histopathological report and habits of tobacco/betel quid chewing, on prognosis; emphasizes the importance of early diagnosis and prevention of carcinoma of buccal mucosa in the Indian population.<sup>12</sup>

## CONCLUSION

Oral cancer is a viscous disease that severely affects basic human living functions. It is estimated that around 43% of cancer deaths are due to tobacco use, alcohol consumption, unhealthy diets, inactive lifestyle, and infection. Hence; cancer awareness programmes should be timely organized for increasing the awareness of oral cancer among general population.

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