Case Report

International Journal of Dental and Health Sciences
Volume 02, Issue 04

A VARIANT CASE OF ORAL SQUAMOUS CELL CARCINOMA

Vinayak Kumar Mantu[1], Ruchi Mitra[2]

1.Senior Lecturer,Department of Oral and Maxillofacial Pathology,Darshan Dental College and Hospital,Loyara,Udaipur,Rajasthan

2.Senior Resident,Department of Dentistry,Rajendra Institute of Medical Sciences, Ranchi, Jharkhand

ABSTRACT:

Squamous cell carcinoma is a malignant epithelial neoplasm characterized by variable clinical manifestations. When located in the gingiva, this neoplasm may mimic common inflammatory lesions. The aim of this study was to report a case of atypical squamous cell carcinoma. A 60 Year old male patient was presented to the department with complains of pain and ulcer in the upper right back region of jaw. On clinical examination erythromatous ulceroproliferative growth extending from 24 to 28 region anteroposteriorly measuring 4 cm and supero inferiorly extends from buccal vestibule to 1/3rd of palate. Growth was diffuse and erythematous halo was present. Floor was covered with slough, edge was everted in respect to posterior aspect and sharp in anterior and tender with the surrounding mucosa normal. The diagnosis of squamous cell carcinoma was made and fourteen days after incisional biopsy, healing was found to be unsatisfactory. The patient was referred for treatment consisting of surgical excision of the tumour. We conclude by emphasizing on the need of careful analysis of all the histopathological and other investigations of Squamous cell carcinoma.

Key Words: carcinoma,malignant,neoplasm,gingiva

INTRODUCTION:

OSCC(Oral squamous cell carcinoma) is the most common neoplasm of oral cavity. It is defined as "a malignant epithelial neoplasm exhibiting squamous differentiation as characterized by the formation of keratin and the presence of intercellular bridges."[1]The incidence of scc in oral cavity differs widely in various parts of world on the basis of environmental difference or life style and habits, such as betel quid chewing, Snuff dipping or habits of reverse smoking. High incidences include in India, Pakistan, and central Europe. Squamous cell carcinoma (SCC) represents from 90% to 95% of all malignant neoplasms of the oral cavity, being located mainly in the tongue, especially in the lateral posterior border. It generally affects men aged over 50, most of them with a history of high tobacco and alcohol consumption.[1,2] SCC rarely occurs in the young, i.e., patients under the age of 40.

The risk of oral cancer is more with cigar and pipe smoking. It occurs due to heat, trauma of the pipe stem and end products of tobacco. [3]Alcohol rather than tobacco is the major factor in carcinogenesis. This is due to the addition of certain beverage

*Corresponding Author Address: Dr. Vinayak KM. Email: drvinayakkm@gmail.com

congeners like nitrosamines and other impurities. Alcohol dehydrogenase oxidizes ethanol to acetaldehyde which is cytotoxic and results in production of free radicals and DNA hydroxylated bases; Alcohol dehydrogenase type 3 genotype appear predisposed to oral SCC.[4]

In olden days, the higher incidence of squamous cell carcinoma in patients with syphilis may have been due to precancerous nature of the condition or due to arsenic which was used in treatment of the disease in olden days.[5]Also, Poor oral hygiene, faulty restorations, sharp teeth, and ill-fitting dentures are co-factors which have synergistic role with smoking and chewing tobacco in causation of oral squamous cell carcinoma.[6]Certain deficiency states like anemia, Vitamin A deficiency make the epithelium atrophic and thus more vulnerable to action of carcinogen like tobacco. Viruses induce cancers by altering the DNA and chromosomal structure of host cells inducing the cells to proliferate in an uncontrolled manner. HSV-1 virus infection with snuff exposure has been shown to produce squamous cell carcinoma. A significant correlation has also been noted between patients of AIDS and AIDS related complex and oral squamous cell carcinoma.[7]

CASE DETAIL:

A 60 Year old male patient from Banswara Rajasthan presented to the department of oral pathology Darshan Dental College and Hospital Udaipur with complain of pain and ulcer in the upper right back region of jaw. He gave the history of smoking 5-6 bidi per day over last 30 years. Patient was asymptomatic 5 months back then he went to private dental clinic for extraction of tooth in 27,28 region. Unsuccessful extraction was done, root piece was left behind. He spitted with warm water after that he developed ulcer and pain then he was referred to RNT Medical college Udaipur. Since then difficulty in chewing and brushing was still present. Extraoral clinical examination revealed submandibular and submental gland palpable and tender, hard in consistency. Intraoral examination showed inflamed buccal and labial mucosa, gingiva enlarged ,bleeding on probing present. Teeth irregularities missing with 15,16,17,18,25 26,27,28,36,45,46,44 and carious 14(O),35(D).Mucosal lesion was erythromatous ulcer extending from 24 to 28 region anteroposterriorly measuring 4 cm and supero-inferiorly extends from buccal vestibule to 1/3rd of palate. Growth was diffuse and erythematous halo was present. Floor was covered with slough; edge was everted in respect to posterior aspect and sharp in anterior. Surrounding mucosa was normal. On palpation the edge was everted, base-fixed, surrounding mucosa- firm and tender. An exophytic growth with 24 to 28 region showed a roughened & irregular surface and keratosis. Fibro purulent exudates was present on the surface. There was diffuse swelling present along with tenderness. There was dull aching intermittent type of pain which relieved on medication to some extent. (Fig 1&2). Sub mandibular and sub mental salivary gland was

palpable and tender. 21, 22, 23, 24 and 35 was decayed and remaining dentition was missing.

Investigation: OPG Orthopantomogram of the patients jaw revealed compartmented appearance with septa of bone extending into the radiolucent tumor mass. Periphery is smooth and lesion is multilocular. There was slight erosion of the cortical bone was evident. (Fig 3).

Provisional Diagnosis: Chronic Non Healing Ulcer

Histological Examination: Biopsy was taken for histological examination. Histologically it was diagnosed as Oral squamous cell carcinoma. Under low power view, stratified squamous hyper keratinized proliferating epithelium showing focal areas of discontinuous basement membrane and invasion into stroma with background of inflammatory cells. Under high power view, numerous pleomophic tumor cells within stroma represent anaplastic changes like altered nuclear cytoplasmic ratio, pleomorphism, hyperchromatism, abnormal mitosis, loss of cohesiveness and abnormal stratification. (Fig 5,6).

DISCUSSION:

SCC is the most frequent malignant neoplasm of the mouth, corresponding to 96% of all malignant tumours in this region. In general, SCC mainly affects older than 40 years and is extremely rare in young patients.[8] The most affected sites in the mouth are, in decreasing order, the lower lip, lateral border of the tongue, retromolar region, floor of the mouth, and gingival.[3] Although the clinical presentation of the SCC varies according to the affected site, the degree of differentiation and the invasiveness or the exophytic characteristics of most lesions are notice.SCC of the alveolar ridge more frequently involves the mandible than the maxilla [3] and is mainly observed in female older than 50 years. However, some investigators have reported a higher incidence in male. This controversy in the literature is mainly observed between current studies and those performed before the 1980s, a fact indicating a trend towards a higher incidence among females over the years as also observed for carcinomas involving other oral sites. According to Yoon et al.[9] and Meleti et al.,[8] SCC does not show a strong association with classical risk factors such as actinic radiation, tobacco use, either smoked or chewed in its various forms especially when associated with excessive consumption of alcohol. Otherwise, Souza et al.[10] have reported a significant association between SCC and smoking and alcohol consumption.

In a study analyzing a period of 18 years (1975 and 1992), Barasch et al.[2] reported a non-significant increase in the proportion of alveolar ridge SCC compared to the total number of SCCs affecting other oral sites and also observed an increase of the tumour among females. With respect to age, in that study, gingival SCC was most frequent in the seventh decade of life.

Cases published by Wallace and Neville [1] in 1996, Levi et al.[11] in 2005 and Meleti

et al.[8] in 2006 were supported by the observations regarding SCC made by Barasch et al.[2] in which this neoplasm was associated to female, showing clinical aspects similar to those observed in the periodontal processes of inflammatory origin. Thus, Barasch et al.[2] suggested further studies evaluating particular factors related to alveolar ridge SCC that differ from oral SCC affecting other sites, mainly differences between genders.

A situation similar to that reported for other countries is observed in Brazil. In an analytical study of 1440 cases, Perussi et al.[12] observed an association between oral SCC and old age. Alveolar ridge SCC occurred in 11.5% of patients younger than 60 years old and in 14.5% of patients older than 60 years. This frequency is lower than the observed at other sites such as tongue and floor of the mouth. The present case, which involved a male patient diagnosed with SCC of the alveolar ridge and palate in the sixth decade of life, agrees with the previously reported findings.

In the present case, a proliferative lesion was detected in the maxillary alveolar ridge of a patient who had SCC. The first symptoms reported suggested a periodontal disorder. However, more detailed assessment of clinical characteristics such as staining, verruciform surface and ulceration, which, according to Torabinejad and Rick [3], are generally observed at the onset of SCC led to its inclusion in the differential diagnosis of the lesion. SCC should be diagnosed early for a better prognosis. The chance for cure is favourable when the size of the lesion is less than 1 cm.

CONCLUSION:

SCC is a condition in which chance of cure is higher when carcinomatous lesions are diagnosed and treated early. In this instance dentists play an important role in early detection of oral squamous cell carcinoma.

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FIGURES:

Fig 1. Extraoral view of the patient

Fig 2. Intraoral proliferative ulcerous growth

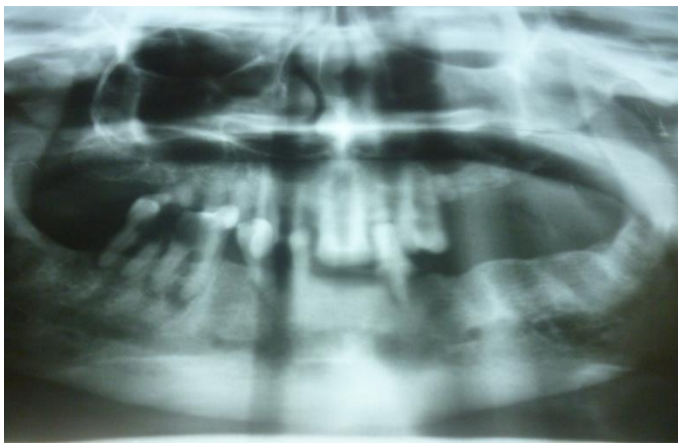

Fig 3. Radiographical view

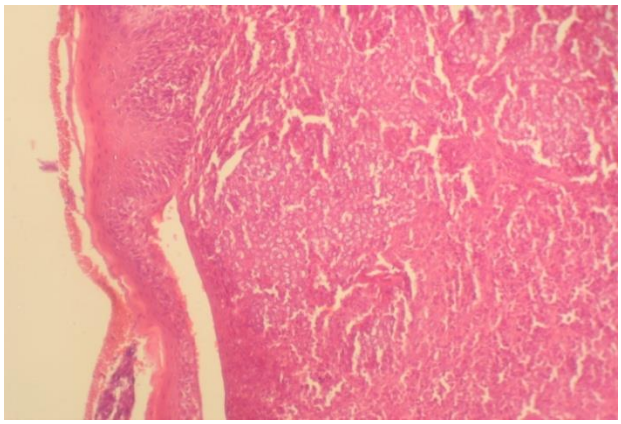

Fig 4. Under low power view histological view

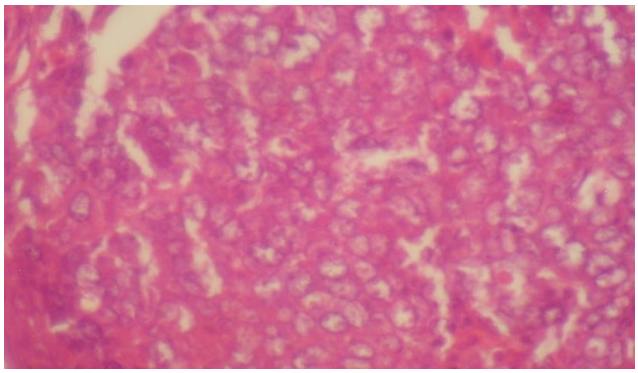

Fig 5.Under high power view histological view