Oral Squamous Cell Carcinoma: A Clinical Case Report

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Abstract

The most common carcinoma affecting the oral mucosa is oral squamous cell carcinoma, with prevalence seen in the age groups above 50 years in males and with rare occurrence below 30 years. Studies reveal approximately 30-40 % of deaths in oral squamous cell carcinoma occur due to various tissue abuse habits. The present case definesa classic incident of oral squamous cell carcinoma concerning the alveolo-buccal sulcus in a male having 50 years of age.

Keywords: *Alveolobuccal Sulcus, Oral Squamous Cell Carcinoma, Mandible.*

Introduction

One of the potential scarring and incapacitating disorder which harms the physical stature and mental health of patients is Oral Squamous cell carcinoma (OSCC).(1) It is the most familiar malignant mucosal neoplasm of head and neck accounting for over 90% of all malignant neoplasm.(2) The frequency and mortality rates of OSCC arise with the age of the patient and males are affected more than females.(1) It typically affects the older age groups throughout the fifth-eighth span of life with less occurrence reported in the younger age groups below 40 years.(3) The maximum prevalent threat for the occurrence of oral SCC is due to the habit of tobacco or betel intake, ingestion of intoxicating drinks, and contamination with human papilloma virus (HPV) having high-risk factors. Also a nutrition comprising of inadequate fresh fruits and vegetables was reported in OSCC patients.(4)

Since, the oral mucosa is more approachable to the comprehensive investigation; early perception of potentially malignant and cancerous lesions can be easily marked. But sometimes due to unawareness or unapproachability of therapeutic facilities, the carcinoma gets diagnosed in the advanced stages. Thus, an enhancement in primary recognition of oral carcinoma should be adopted, by adopting the chairside diagnostic procedures like toluidine blue, brush biopsy, etc.(5) In the current paper, we represent a case of a small swelling which grew to a larger size after 2 months.

Case Report: A male patient of age 50 years came with a history of pain in the left side mandibular back tooth region for 8 days. The patient had tuberculosis and is under medication for 2 months and he has undergone extraction in the left side mandible before 12 years. The patient had a habit of pan and khaini chewing 10-15/day for 20 years and has left the habit since 4-5 years. Extra-orally there was presence of a single, submandibular lymph node measuring approximately 1x1cm in size, non-tender and mobile on palpation. Intraoral examination showed localized growth present in the left lower edentulous region on the alveolar ridge with relation to 36, measuring 1x0.5 cm approximately having

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irregular borders. On palpation, the tumor was soft in consistency, non-pedunculated, tender on palpation which bleeds on probing with slight obliteration of gingivo-buccal sulcus.(Figure-1.1)

Hence a provisional diagnosis of gingival epulis was given along with differential finding of pyogenic granuloma and peripheral giant cell granuloma, but patient didn't reported to the department, had not taken any medications, or performed any investigations advised. After approximately 2 months,the patient again reported to the hospital with the same complaint (as he had previously) of pain along with swelling in the mandibular left side back tooth region. Extra-orally swelling present in the left lower 1/3rd of face measuring 2x2 cm in size approximately of normal skin color, appears shiny and stretched. On palpation swelling was firm in consistency and tender with no secondary changes or symptoms associated with it. Skin over the swelling was warm to touch and was non-pinchable. (Figure-2.1)

Left submandibular lymph node measuring 1x1 cm was palpable which is tender on palpation and fixed to the underlying structures. A single, ulcero-proliferative growth present in the left gingivo-buccal sulcus with relation to 34 35 36 37 region, measuring 3x2 cm in size having irregular margins and erythematous in appearance with no secondary changes present. On palpation, growth was firm to touch, having indurated margins and remained tender on palpation with obliteration of gingivo-buccal sulcus with relation to 34-37 regions. (Figure-2.2)

Figure 1. 1. Extra-oral view of patient; 1.2-Intra-ora view showing a localized growth

Figure 2.1. Extra-oral view of patient after 2 months; Figure 2.2. Clinical view of ulcerative growth which increased in size in the gingiva-buccal sulcus.

The patient was further advised to do radiographic investigations. An intraoral periapical radiograph and panoramic radiograph was done.Intraoral periapical radiograph reveals a single diffused radiolucency with relation to 34 35 36 measuring 1x2 cm in size. There is vertical and inter-radicular bone loss,with widened pdl space i.r.t 35 36, and loss of lamina dura i.r.t 34.(Figure-3.1)

Panoramic radiograph reveals a localized, ill-defined radiolucency involving the left side body of mandible, measuring 3x2 cm in sizewith loss of buccal cortical plate and intact lingual cortical plate.Missing tooth present i.r.t 36 with mesially tilted 37.(Figure-3.2)

Figure 3.1-Inra-oral periapical radiograph; Figure 3.2- Panoramic radiograph

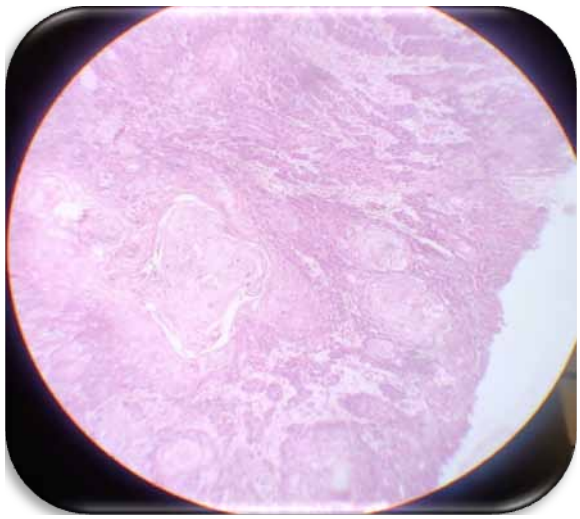

Figure 4. Histopathological slide showing para-keratinized stratified squamous epithelium, withtumorislands, nests and cords along with diffusely arranged chronic inflammatory cells.

Correlating the clinical features, radiographic findings a provisional diagnosis of Malignant ulcer-proliferative with clinical staging of tumor T1N1M0 was presented. A chairside investigation was carried out by applying toluidine blue staining which showed the presence of dysplastic cells. Further incisional biopsy of the lesion was done under local anesthesia and was submitted for histopathological examination. Histopathology revealed hyperplastic proliferated para keratinized stratified squamous epithelium invading into the underlying moderately dense fibro collagenous stroma as strands and cords.(Figure-04)

The definite diagnosis was moderately differentiated SCC patient was further sent for complete excision of the lesion to the department of oral surgery.

Discussion

This case report described an unusual case of oral SCC of alveolo-buccal sulcus of a 50-year-old male patient who has previously reported with a small growth which gradually increased in size over 2 months. World Health Organization(WHO) described carcinoma of the oral cavity as the 6th most commonest cancer in males in developing countries, the first being lung, followed by prostate cancer and involvement of carcinoma of other organs, while studies revealed that in women, it is the 10thusualspot for cancer, the first being breast cancer, followed by colorectal cancer and carcinoma of the stomach.[6]

Risk factor associated are tobacco (smokeless and smoking), alcohol, betel quid, agents containing phenols, emission of radiation, lack of iron and Vitamin A in diet, syphilis, environmental and occupational factors, oncogenic viruses (HPV and EBV), Candidial infection, genetic predisposition, immunosuppression[2]. It has been reported that tobacco and alcohol intakeis not only prime risk factors for oral carcinoma but also hasrobust effects on the morbidity, mortality, recurrence and second primary tumor in patients.[3]

A plethora of clinical forms of Oral SCC have been reviewed. It may be in the form of leukoplakia, leukoplakia with verrucous growth, an erythroplakia[7] some of them may exaggerate in the future into a necrotic type of ulcer comprising of indurated edges. It may perhaps give rise to a comprehensive mass having papillary projections with irregular superficialtexture.[4] There is the presence of bleeding in oral SCCin case of trauma with pain after they become superficially secondarily infected whereas otherwise oral SCC is usually painless in nature[4].

The sites with the most frequent occurrence of OSCC are the inner side of the tongue along with the floor of the mouth due to the presence of thin non-keratinized epithelium. The oral sites with less frequent occurrence are the gingivae, palatal mucosa, retromolar region along with the buccal and labial surface of the oral cavity.[4] Patients who have a positive histopathologic report for oral squamous cell carcinoma should undergo contrast-enhanced computed tomography of the head and neck to help in the physiological examination to know the extent of tumor and involvement of lymph node. Magnetic resonance imaging should be indicated in case of involvement of soft tissues especially in the tongue.[9] Surgery is considered the first line of treatment. Always a multidisciplinary approach should be made including chemotherapy, radiotherapy or surgery or a combination of all of these for the better prognosis of Oral SCC.[9]

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Ethical Issues: Approved

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