

CARCINOMA OF BUCCAL MUCOSA WITH REGIONAL METASTASIS: A CASE REPORT

Case Report

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ABSTRACT

Squamous cell carcinoma (SCC) of the buccal mucosa is the sixth most common type out of all cancers in the world with contributing to 10% of all oral cancers. Buccal mucosa SCC is known to be aggressive in nature compared with oral cancers at other sites. It has been seen to have poor local control and 5-year cause-specific survival rates in early-stage carcinomas. Here we present a 53 years old male patient presented with an ulcero-proliferative growth involving the left buccal mucosa. From the history and clinical examination a provisional diagnosis of Carcinoma of left buccal mucosa was made and patient was advised for an incisional biopsy & CECT of face with neck. The advanced radiologic assay revealed poorly defined irregular heterogeneously enhancing soft tissue thickening involving the left buccal mucosa. Histopathology report confirmed a case of Well differentiated SCC. Patient was taken for surgery and Level IA & IB lymph nodes were resected along with the submandibular gland. Reconstruction of the intra oral defect was done by ipsilateral nasolabial flap and buccal pad of fat. Hopefully this case will give the readers new insights into diagnosing and treating oral cancer cases

Key Words: Orbit; Solitary fibrous tumor; Recurrence . Carcinoma of left buccal mucosa, cellular pleomorphism, lip split incision, nasolabial flap, sub centimetre lymph nodes

Received: 25 April 2024, **Accepted:** 29 April 2024.

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ISSN: 2090-097X, July 2024, Vol. 15, No. 3

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] Primarily buccal mucosa cancer seen on the occlusal plane with painful growth and ulceration. Squamous cell carcinoma (SCC) of the buccal mucosa is sixth most frequent cancer in the world and it is approximately 10% of all oral cancers. SCC has a sex predilection slightly towards men and it is the most common cancer for male (17%) and fourth most common cancer for female (11%).

The mortality rates of SCC increase with the age and affects older age group patients (fifth or eighth decade) than the younger age groups (below 40 years). Buccal mucosa SCC is known to grow more rapidly and penetrate well with a higher recurrence rate than oral SCCs at other sites, therefore, buccal mucosa SCC requires careful treatment even at early stages.^[2]

SSC affects the buccal mucosa and its adjacent structures, such as vestibule of the maxilla and mandible, retromolar trigone, masticatory muscles, and cheeks. In Southeast Asian countries such as India, Malaysia and Taiwan, however, SCC of the buccal mucosa is seen more frequently.^[3] The risk factors associated with SSC is

tobacco chewing, betel nut intake, intoxicating drinks ingestion, and contamination with human papilloma virus (HPV).

CASE PRESENTATION:

A 53 years old male patient presented with an ulcero-proliferative growth involving the left buccal mucosa. The lesion has existed for 2 months. (fig1) Patient had a history of Gutkha (tobacco laden areca nut mixture with slaked lime) chewing since last 15 years. The growth was small in size to start with (about 1 cm), and gradually progressed to attain a size of about 2 cm over the period.

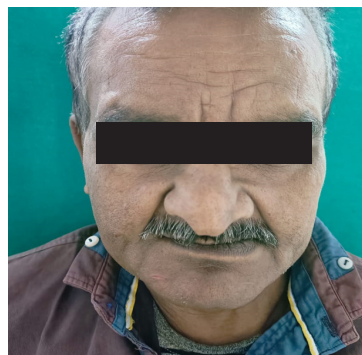


Figure 1: Pre-operative extra-oral picture

On general physical examination, solitary left submandibular lymph node was palpable, roughly oval in shape, about 1x1cm, soft to firm in consistency, tender and mobile. Extraoral Skin was smooth, non-erythematous, non-febrile and tender on palpation. Intraoral examination revealed a solitary well defined ulcerated brownish-red oval shaped sessile growth of approximately 2 cm, protruding from the left posterior buccal mucosa extending from approximately 3 cm from the retromolar area and upto about 3 cm from the left angle of the mouth mediolaterally and approximately 3 – 4 cm from the depth of left maxillary posterior buccal sulcus to the depth of the left lower posterior buccal vestibule superior- inferiorly. The lesion was not scrapable and presented with surface roughness, peripheral erythematous area and some active bleeding points. On palpation it was soft and non-tender. Induration was not present. The patient also gave a positive history of weight loss and anorexia for last 2-3 months.

From the history and clinical examination a provisional diagnosis of Carcinoma of left buccal mucosa was made and patient was advised for an incisional biopsy, which revealed severe dysplastic features like; loss of basement membrane continuity, hyperchromatism, cellular pleomorphism and invasion of epithelium into connective tissue. Underlying connective tissue showed keratin pearls with varying sized epithelial tumor islands. The overall histopathological features were suggestive of Well differentiated Squamous cell carcinoma of left buccal mucosa. CECT of face with neck was advised which revealed poorly defined irregular heterogeneously enhancing soft tissue thickening involving the left buccal mucosa extending upto the retromolar trigone and medially mildly protruding into the vestibule. No evidence of any adjacent bone erosion or abnormality in the overlying cutaneous and subcutaneous planes were seen. Few homogeneously enhancing sub-centimeter bilateral level IB and level II lymph nodes were seen largest measuring 6mm in short axis diameter.

MANAGEMENT: After informing the patient regarding the findings, the patient was taken for surgery with due aseptic precautions. Intra-oral intubation was done due to the fact that patient was suffering from tonsillitis and endo tracheal intubation would not have been possible. Level IA & IB lymph nodes were resected along with the submandibular gland. Other lymph nodes of level II & III were sub centimetre lymph nodes. Lip Split incision was given and extended for wide resection of the lesion with 2 cm of margins was done. All the excised sentinel lymph nodes were sent for biopsy. Reconstruction of the intra oral defect was done by ipsilateral nasolabial flap and buccal pad of fat. Layer wise closure with 3-0 vicryl & 4-0 ethilon sutures were done. The patient tolerated the entire surgical procedure and his vitals were normal. The patient was shifted to ward and after 7 days he was released with no post-operative complaints. The patient was referred for post-surgical radiotherapy and still on regular follow ups.



Figure 2: Pre-operative intra-oral picture showing the lesion



Figure 3: Biopsy specimen taken from the representative site

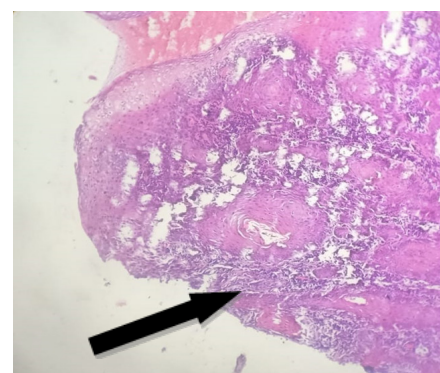


Figure 4: H & E stained section showing characteristic keratin pearl appearance

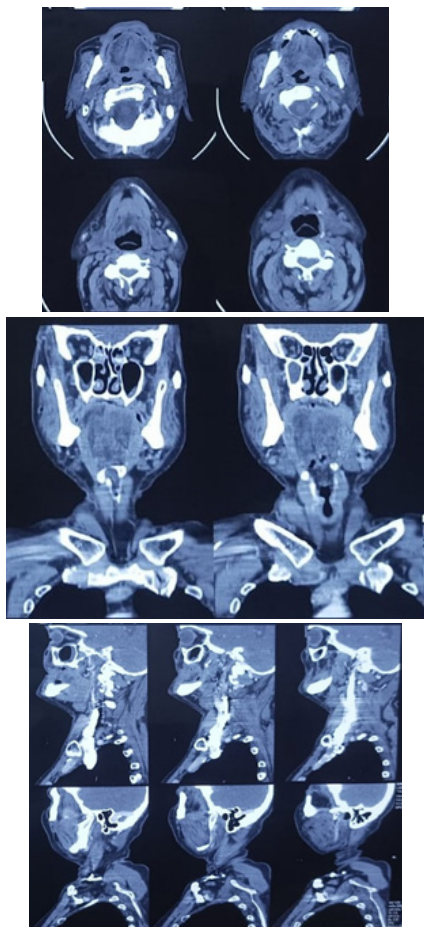


Figure 5: CECT images showing poorly defined irregular heterogeneous soft tissue thickening involving left buccal mucosa extending upto the retromolar trigone with lymph node level IB and level II involvement

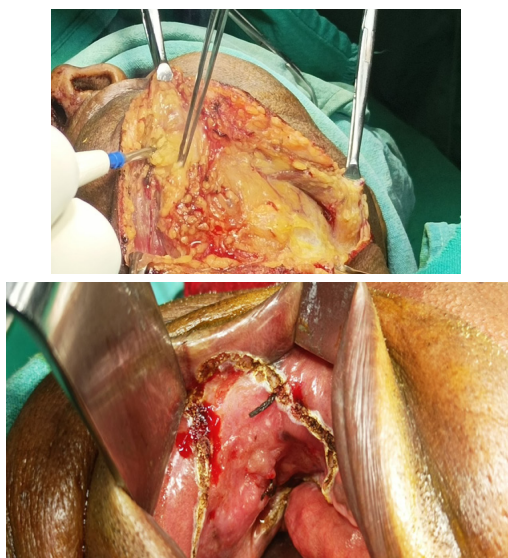


Figure 6: Intra-operative picture showing excision of the lesion and the sentinel lymph nodes



Figure 7: Excised tumour mass 5.5 x 3.5 cm 2



Figure 8: Post-operative extra-oral 30 days follow-up picture

DISCUSSION:

Buccal mucosa SCC is known to be aggressive in nature compared with oral cancers at other sites. It has been reported to have poor local control and 5-year cause-specific survival rates in early-stage carcinomas compared with those in the oral cavity, tongue, and mouth floor.^[2] The reported recurrence rate of buccal mucosa SCC is 30% to 80%.^[4] SSC is the most common oral carcinoma with 60% cases arising from the anterior 2/3rd of the tongue and remainder from the base. 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), Candida infection, genetic predisposition, immunosuppression.^[5]

It has been reported that tobacco and alcohol intake not only prime risk factors for oral carcinoma but also has effects on the morbidity, mortality, recurrence and second primary tumour in patients.^[6]

Squamous cell carcinomas have a predilection for the posterior buccal mucosa, followed by the middle third and rarely the anterior third. They arise at commissures, along the occlusal plane of the teeth or at the retromolar area.^[7] Tumours of the buccal mucosa can be broadly subdivided into two groups. The first comprises of those tumours (usually stage T1 and T2) which have not invaded the buccinator muscle, and which as a consequence, have not widely infiltrated the soft tissues of the cheek. The second group (usually T3 and T4) have widely infiltrated the cheek tissues and may also involve the cheek skin by the time they present.^[8]

Concomitant change in mucosal texture by way of firmness or induration by digital palpation, friability on slight manipulation, and distortion of normal anatomy can be seen, while more advanced cases may feature lesions fixed to surrounding and deeper tissues often without pain or symptoms.^[9] Cancer of the buccal mucosa may extend to deeper structures to involve the buccinator muscle and buccal space including the parotid duct and body of the buccal fat pad as well as to the dermis and mandible.^[10] With clinical progression additional clinical signs become evident including ulceration, induration/fixation, bone invasion, tooth mobility and pain. These ulcerative lesions can be deeply infiltrative.^[11]

although its efficacy remains yet to be substantiated^[21]. Additionally, the exploration of chemotherapy as an adjuvant therapy for OSFT has been undertaken, particularly in instances where non-operable recurrence or metastatic disease is present^[11].

Locoregional extension to draining lymph nodes generally occurs in the later stages of the disease progression as a result of lymphatic vessel permeation by lymphatics by invasive tumour, thus increasing the staging to levels less likely to be successfully managed.^[9] Cervical node metastasis is noted on initial clinical examination in approximately 30% of patients who have oral Squamous cell carcinoma.^[10] The presence of cervical lymph node metastasis is the single most reliable factor in patients who have oral Squamous cell carcinoma. In patients with cervical metastasis at the time of diagnosis, 5- year survival rate is reduced by 50%. Late diagnosis and advanced stage diseases are considered to be important factors leading to poor prognosis of oral cancer.^[12]

CONCLUSION:

Squamous cell carcinoma is perhaps the most common form of oral cancer affecting the tongue, alveolus, lips, palate, buccal mucosa etc. this variant of SCC which had affected the left buccal mucosa was diagnosed and treated keeping in mind all possible outcomes. The patient has undergone post-operative radiotherapy with minimal side effects. It is suggested to keep a long term follow-up with the patient and look for the earliest signs of recurrence, if any in future.

CONFLICT OF INTEREST:

The authors declared that there is no conflict of interest.

CONSENT:

Written informed consent was obtained from the patient for the publications of this case report and any accompanying images.

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