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A CASE REPORT ON EARLY INVASIVE SQUAMOUS CELL CARCINOMA PRESENTING IN THE SIXTH DECADE

Dr. Arnab Bhattacharyya*, Dr. Soma Kundu, Dr. Poulami Lohar

Post Graduate Student, Department of Oral Pathology and Microbiology, DJ college of Dental Sciences and Research.

***Corresponding Author: Dr. Arnab Bhattacharyya**

Post Graduate Student, Department of Oral Pathology and Microbiology, DJ college of Dental Sciences and Research.

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ABSTRACT

Oral squamous cell carcinoma (OSCC) is the most common malignant neoplasm of the oral cavity, often associated with risk factors such as tobacco and alcohol use. It commonly presents in the buccal mucosa, tongue, and floor of the mouth. In this case report, a 63 year-old male patient reported with a burning sensation, pain, and swelling in the right buccal mucosa for 4 months. Intraoral examination revealed an ulcero-proliferative lesion with indurated borders, extending from the commissure of the lips to the retromolar region. Histopathological analysis of the incisional biopsy confirmed the diagnosis of early invasive oral squamous cell carcinoma. The patient was referred to the cancer institute for treatment and is being kept under regular follow-up. This case highlights the importance of early diagnosis and prompt management of OSCC to improve patient prognosis.

KEYWORDS: Oral squamous cell carcinoma, Buccal mucosa, Tobacco, Exophytic lesion, Surgical excision.

INTRODUCTION

Oral squamous cell carcinoma (OSCC) accounts for over 90% of all oral malignancies and remains one of the most aggressive cancers affecting the head and neck region.[3] Incidence of OSCC is approximately 2- 10 per 10,000 population per year. The primary etiological factors include tobacco use, alcohol consumption, and betel nut chewing, which are especially prevalent in South Asian countries such as India, Pakistan, and Sri Lanka.[2] Clinically, OSCC often presents as a non-healing ulcer or exophytic mass with indurated borders and may mimic benign inflammatory conditions, leading to diagnostic delays.[1] Unusual presentations, such as desquamative gingival lesions, can further complicate early detection.[2] The five-year survival rate remains relatively low, particularly in advanced stages, underscoring the critical importance of early diagnosis and prompt treatment.[1] Raising awareness and promoting early biopsy are essential to improve outcomes. In this present case, a 63-year-old male came to our private clinic with a chief complaint of burning sensation and pain which was aggravated by chewing or speech and intraoral swelling. Clinical and cytological examinations were carried out to establish a primary diagnosis. Excisional biopsy was done under LA ad its histopathology is discussed in this case report.

CASE REPORT

A 63-year-old male came to our private clinic with a chief complaint of burning sensation and pain which was aggravated upon chewing and speaking and intra oral swelling on the right side of her cheek. The patient reported the onset of symptoms approximately four months ago, beginning with a minor ulcerative lesion on the inner aspect of the right cheek. Initially inconspicuous, the lesion progressively enlarged over time. The patient also noted intermittent episodes of burning discomfort, particularly triggered by the intake of spicy or hot foods. He was otherwise in good general health and had no significant medical history that could be linked to the current condition. Upon asking about personal habit, we came to know that the patient has been a smoker for last 30 years and usually smoked 3-4 cigarettes per day. Patient also had an occasional habit of chewing smokeless tobacco.

Extraoral evaluation revealed a symmetrical facial profile with no abnormalities in the eyes, ears, or nose. The lips appeared competent, and there were no visible scars, sinus tracts, or signs of tenderness over the maxillary sinus region. The patient had no issues in opening of his mouth which is suggestive of no fibrosis in the oral cavity. However, the patient was having a single ovoid right submandibular lymph node which was non- tender on palpation and soft.

On Intra oral examination, an ulcero-proliferative growth is seen with indurated borders. The lesion had an exophytic growth and was accompanied by inflammation. There is also a greyish white patch and erythematous area surrounding the lesion extending 20mm away from the commissure of the lips till the retromolar region. The lesion extended from the plane of occlusion and towards the maxillary vestibule superior-inferiorly and extended from the distal of tooth 45 till mesial of tooth 47. The lesion was irregular, soft and non-scrapable.

An initial diagnosis of oral squamous cell carcinoma was made and to confirm it a small biopsy was taken under the administration of local anaesthesia and was sent to histopathological lab. The H & E section shows hyperkeratotic stratified squamous epithelium exhibiting pseudoepitheliomatous pattern of proliferation, acanthosis and atrophy with dyskeratosis. The epithelium also shows broad and drop shaped retepegs surrounded by dense inflammation. There are few areas in the connective tissue showing isolated dysplastic epithelial islands. The final diagnosis was made, that is early invasive oral squamous cell carcinoma. Given the confirmed diagnosis, the patient has been referred to a specialized cancer institute for further evaluation and management. This referral ensures that the patient receives comprehensive treatment, including possible surgery, radiation, and/or chemotherapy, as required.

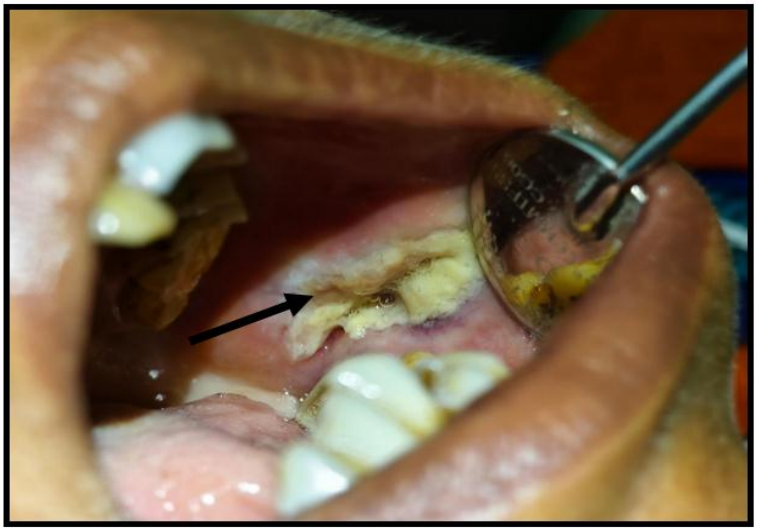

Figure 1: Intraoral view.

Figure 2: Biopsy specimen of the lesion.

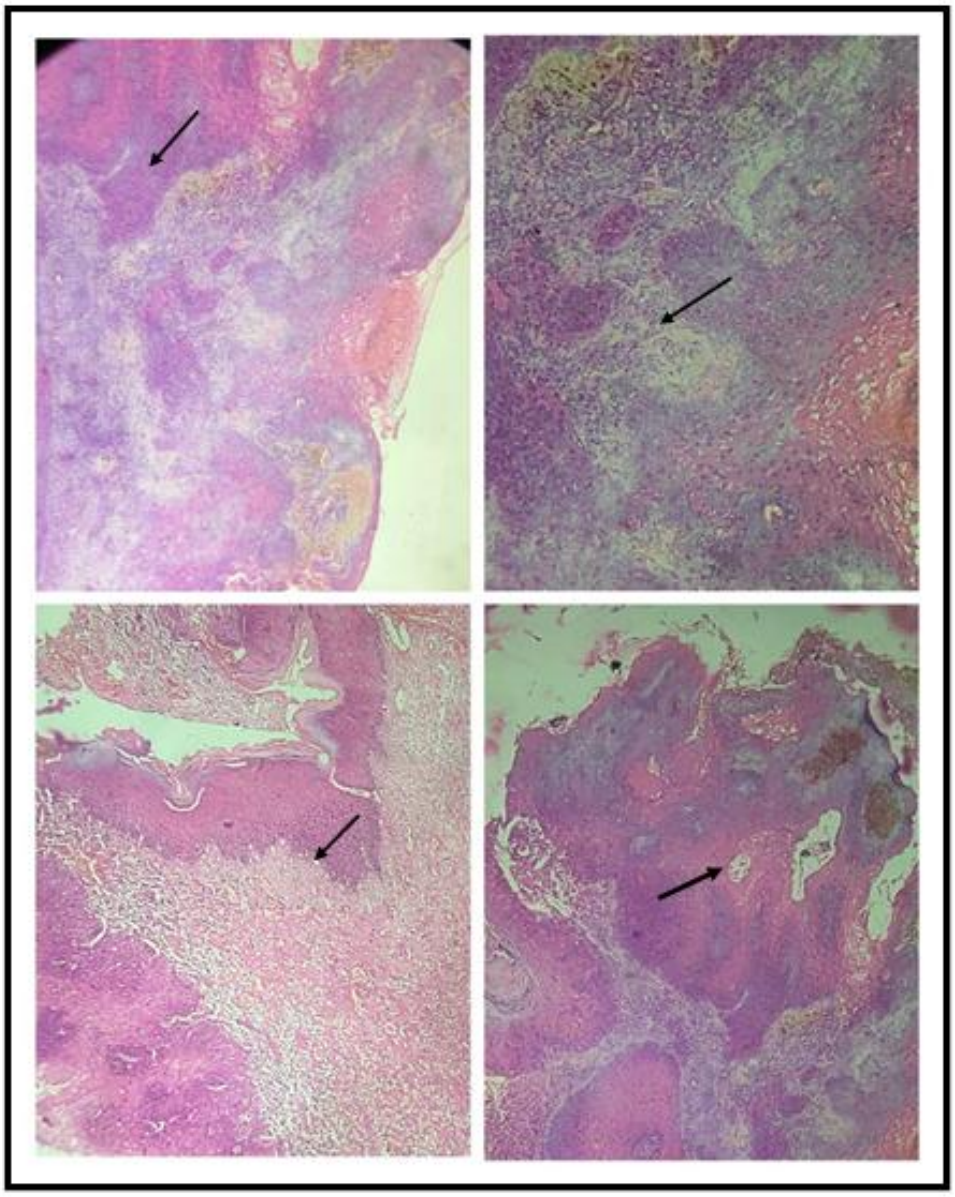

Figure 3: Histopathological section of the lesion showing epithelial island with keratin pearls formation, dysplastic squamous epithelium invading the underlying connective tissue stroma. (H&E stain, 10x).

DISCUSSION

Oral squamous cell carcinoma (OSCC) is the most common malignant neoplasm of the oral cavity, accounting for nearly 90–95% of all oral cancers.[1,2] It can present in multiple clinical forms such as leukoplakic, erythroplakic, ulceroproliferative, or exophytic growths. In many cases, the lesions remain asymptomatic in the early stages, leading to delays in diagnosis until significant progression has occurred.[1]

The buccal mucosa is one of the most frequent intraoral sites for OSCC, contributing to around 40% of cases, followed by the tongue, floor of the mouth, and lips.[1,2] In our patient, the lesion was localized to the right buccal mucosa, consistent with the common site distribution reported in the literature.

Several well-established risk factors predispose individuals to OSCC, including male gender, age above 40 years, chronic tobacco use, and alcohol consumption.[2] Our patient, a 63-year-old male with a history of cigarette smoking and occasional smokeless tobacco use, falls into a high-risk category. Chronic exposure to such carcinogens contributes to epithelial dysplasia and malignant transformation.

Clinically, OSCC of the buccal mucosa often manifests as a persistent ulcer with indurated and irregular margins, frequently associated with pain, burning sensation, and difficulty in mastication or speech. In our case, the lesion presented as an ulcero-proliferative growth with induration, extending from the commissure of the lips to the retromolar region, which is characteristic of advanced local involvement.[4]

Histopathological examination remains the gold standard for definitive diagnosis. The biopsy of our patient revealed hyperkeratotic stratified squamous epithelium with keratin pearls, epithelial dysplasia, and broad rete ridges infiltrating the connective tissue - features consistent with early invasive squamous cell carcinoma.

Early detection and timely intervention are crucial for improving patient prognosis and survival outcomes in OSCC.[5] Wide surgical excision remains the mainstay of treatment in localized lesions, while advanced stages may require adjunctive radiotherapy and chemotherapy.[6] In this case, the patient was diagnosed with early invasive squamous cell carcinoma and was referred to a cancer centre for the appropriate treatment of the lesion.

CONCLUSION

In this case report, the patient had oral squamous cell carcinoma involving the buccal mucosa. The lesion was the cause of the pain, burning sensation, and numbness, and was confirmed histopathologically. Early detection and timely referral are essential, as oral squamous cell carcinoma can progress rapidly and affect prognosis. Surgical excision remains the mainstay of treatment, often supplemented with radiotherapy or chemotherapy depending on the stage. Routine follow-up is crucial to detect recurrence at an early stage.

REFERENCE

1. Gayathri PS, M B, Ramani P, J M, Jeyakumaran S, Raman P. Oral Squamous Cell Carcinoma of the Right Buccal Mucosa: A Case Report. Cureus, May 3, 2024; 16(5): e59571. doi: 10.7759/cureus.59571. PMID: 38826907; PMCID: PMC11144300.
2. Tantray S, Chauhan K. Oral squamous cell carcinoma in 38 year old male: A Case Report [Internet]. J Oral Med Oral Surg Oral Pathol Oral Radiol, 2020; [cited 2025 Sep 30]; 6(2): 92-97.
3. Kukde MM, Lanjekar A, Deotale K, Noman O, Selokar D. Presentation of a 32-Year-Old Female Patient With Rapidly Growing Oral Squamous Cell Carcinoma: Report of a Rare Case. Cureus, Jun. 27, 2023; 15(6): e41042. doi: 10.7759/cureus.41042. PMID: 37519578; PMCID: PMC10373945.
4. Debnath S, Maji S. Oral squamous cell carcinoma: a clinical case report and review. IDA WB., 2025; 41(1): 8-10.
5. Sajjad, A., Patel, R.S., Amer, R. *et al.* A rare case of betel nut-associated oral squamous cell carcinoma in the United States: a case study. *Discov Med.,* 2025; 2: 142.
6. Choudhury BK, Priyadarsini S, Mohanty S, Niyogi S, Das P. Oral squamous cell carcinoma: A clinical case report. Indian J Forensic Med Toxicol, Oct-Dec., 2020; 14(4): 8348-51.