CASE REPORT

VERRUCOUS CARCINOMA ON LATERAL TONGUE – A CASE REPORT

Dr. Sayantani Maji*, Dr. Satarupa Debnath*

ABSTRACT

Verrucous carcinoma (VC) is an epithelial malignant tumour that can occur in skin and mucosa. The etiopathogenesis of this entity remains unclear although tobacco (smokable and chewed), alcohol, virus and oral sepsis have been mentioned as possible risk factors. It is considered to be a slow growing tumour with local aggressiveness, being exceptional reports of regional or distant metastasis. The most common morphological presentation is as an exophytic or verrucous lesion with a whitish coloration. Buccal mucosa, gingiva and tongue are the most frequently affected oral sites.

KEY WORDS

Verrucous Carcinoma, Human Papilloma Virus, Proliferative.

ABOUT THE AUTHORS

* Assistant Professor
Department of Oral Medicine and Radiology
Haldia Institute of Dental Sciences and Research,
Haldia

CORRESPONDING AUTHOR

Dr. Sayantani Maji
Assistant Professor
Department of Oral Medicine and Radiology
Haldia Institute of Dental Sciences and Research,
Haldia
drsayantanimaji@gmail.com
9749698761

INTRODUCTION

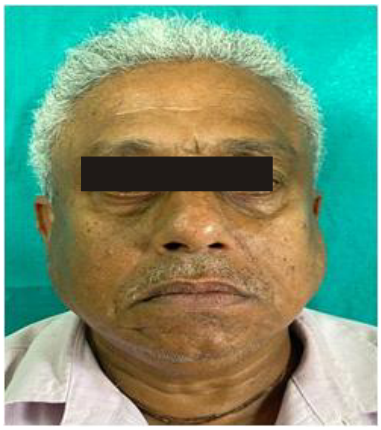
Cancer of the head and neck region is of significant public health importance in India. Most often, it is diagnosed at advanced or late stages resulting in extremely low and poor treatment outcomes with considerable financial constrain. Oral cancer often manifests itself in about 45%-48% of cases as ulcers or ulcerated tumors. Owing to its wide range of causative factors and unpredictable presenting features, the diagnosis of oral ulcerative lesions might be quite challenging.[1] Verrucous carcinoma (VC) presents predominantly as anexophytic, pebbly, micronodular surface, slow growing and locally invasive growth. In 1941, Fridell and Rosenthal reported a case of well-differentiated squamous cell carcinoma (SCC) of the oral cavity as "papillary verrucous carcinoma," which is the earliest known evidence of averrucous carcinoma.[2] In the early stages, these growths are frequently misdiagnosed as non-neoplastic lesions because they can be mistaken for other pathological entities. The best chance of long-term survival is achieved by early detection, investigations to narrow the diagnosis. In this report, we present a classic case of VC.[3]

CASE REPORT

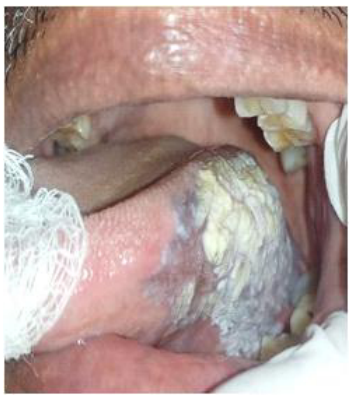
A 67-year-old male patient visited the department with a chief complains of a ulceration on the tongue since 2 years.

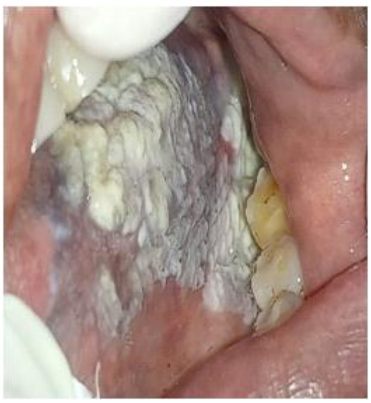
There is history of first appearance of the lesion about 2 years back. The lesion was initially smaller in size and increases over the period and achieved the present-day shape and size. There is no history of bleeding or pus discharge or any pain associated with the lesion.

Based on intraoral inspection a well-defined, whitish, keratotic, exophytic patch is present on the left lateral border of the tongue, left alveolingual sulcus, floor of the mouth, lingual attached gingiva, posterior border of base of the tongue, measuring about 7cmx5 cm approximately. The anteroposterior extension of the lesion is from about 2 cm posterior to tip of the tongue to the base of the tongue. The surface appears to be keratotic, rough, colour

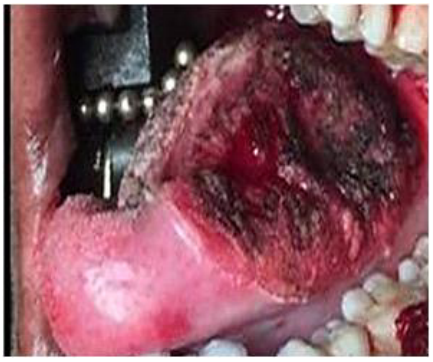


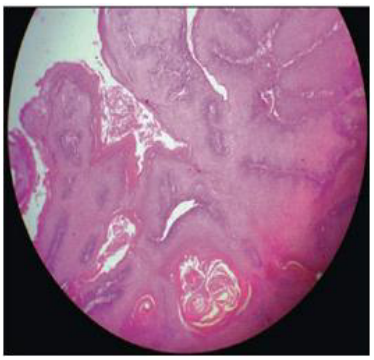
Front Profile





Intra Oral Findings





Intra operative Picture Histopathological Finding 10xmagnification

whitish. There is no restriction in tongue movement noted. There is no associated pain, or discharge noted. Surrounding mucosa appeared to be normal.

Based on intraoral palpation the growth is firm in consistency, non-tender, non-scrapable, not disappearing on stretching, border of the lesion is not indurated, surface is rough, fixed to the underlying mucosa. There is no bleeding or any kind of discharge associated.

After all these clinical findings a provisional diagnosis of non-healing ulcero proliferative growth in left lateral border of tongue is given.

Differential Diagnosis of Verrucous hyperplasia, Verruciform leukoplakia, Verrucous ulcer, Verrucous carcinoma, Squamous cell carcinoma was given.

Patient was advised for routine hematological investigations and an incisional biopsy was performed from lateral border of tongue was performed and 0.5x 0.5 mm tissue was submitted for histopathology and antibiotic regimen was given.

Based on the histopathological findings, revealed exophytic component with papillomatosis of the stratified squamous epithelium displaying dysplasia. Focal areas show invasion of sub epithelium by dysplastic squamous cells. These cells contain abundant cytoplasm with hyperchromatic nucleoli. Stroma shows chronic inflammatory cell infiltration.

These findings were consistent with verrucous carcinoma, there by confirming the case to be one. Immunohistochemistry (IHC) analysis of Ki-67 and p53 revealed a week positivity supporting the low-grade nature of VC. Furthermore, positive signal for cytokeratin CK 10 in all the layers confirmed the epithelial origin of the tumour. Follow up after 6 months revealed complete healing and no evidence of recurrence.a final diagnosis of verrucous carcinoma was made.

DISCUSSION

Oral VC (OVC) is a slow growing lesion with exophytic growth pattern and predilection for males in fourth to sixth decade which becomes locally invasive if not treated properly. Regional lymph node metastases are exceedingly rare, and distant metastases have not been reported.

Betel nut chewing, poor dental hygiene, and human papillomavirus (HPV) infection have been implicated in the development of OVC. The likelihood of detecting HPV in VC was found to be 29.5%. Use of tobacco in the smokeless and inhaled forms has been predominantly reported in the affected patients, followed by areca nut chewing and use of alcohol.[4]

Histomorphology features include densely parakeratinized papillary surface, deep clefts in the epithelium, blunt and voluminous rete ridges with little or no dysplastic changes exhibiting a pushing border effect, and an intact basement membrane. The

resilient basement membrane probably acts as an effective barrier to prevent the carcinomatous growth.[5]

The clinico-histopathological diagnosis of VC is often exclusionary and extremely difficult. Because it is cytologically benign, besides the focal basal cell nuclear hyperchromatism, distinction from VC, and VH cannot be based only on cytologic features.

A correct diagnosis is founded on the precise comparison and integration of all the results and not on the isolated valuation of the different findings. Nor should the VC be treated as lightly as VH nor should it be approached as invasive as SCC. Appropriate treatment is surgical excision. Using radiotherapy is controversial as there may be radiation-induced anaplastic transformation of the lesion as reported by some authors, whereas some suggest VC is radiosensitive.

OVC associated with leucoplakia or submucous fibrosis may be an indication of "field cancerization" and can lead to multiple recurrences, so it is highly suggestive that such patients be kept under regular follow-up. Our patients were on regular follow-up for 6 months, and no recurrence was reported.[6]

CONCLUSION

In conclusion, VC is a rare, slow-growing, yet locally invasive malignancy that poses diagnostic and therapeutic challenges, particularly in younger patients. This case highlights the importance of considering VC in the differential diagnosis even in the absence of traditional risk factors such as HPV infection. Early diagnosis through histopathological confirmation and prompt surgical intervention with clear margins are critical to ensuring favourable outcomes and reducing the risk of recurrence.

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