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VERRUCOUS CARCINOMA OF LEFT BUCCAL MUCOSA– A CASE REPORT

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ABSTRACT:
Oral verrucous carcinoma accounts for 0.57-16.08% of oral squamous cell carcinoma (SCC) with a 5-year survival rate of only approximately 50%. Verrucous carcinoma is a low-grade variant of squamous cell carcinoma (SCC) with specific morphologic, cytokinetic and clinical features. It is a locally aggressive tumour and does not metastasize to regional lymph nodes or to distant sites. Etiological factors include alcohol consumption, tobacco chewing and other irritants to the oral mucosa such as betel nut chewing, poor oral hygiene, a poorly fitting dental prosthesis and earlier mucosal injuries or scars have also been described as the risk factors in the development of oral verrucous carcinoma. The purpose of this article is to present the histological characteristics of oral verrucous carcinoma in a 50 year old female patient.

Keywords: verrucous growth, left buccal mucosa, histopathology.

INTRODUCTION:

In many places of the world, cancer is a major health concern. The World Health Organization's International Agency for Research on Cancer (IARC–WHO) predicts that the number of new instances of cancer would rise alarmingly, from 10 million in 2000 to 15 million in 2020[1]. One of the top 10 most prevalent diseases in the world, oral cancer primarily affects older people from impoverished backgrounds. Use of tobacco, alcohol, and betel is the primary risk factor for oral squamous cell carcinomas (OSCC), which account for the majority of malignancies of the oral cavity [2]

In India, head and neck cancer is most common cancer. [3] About 45%–48% of instances of oral cancer present as ulcers or ulcerated tumors. [4]

Oral verrucous carcinoma was initially reportsed by Ackerman in 1948, while Fridell and Rosenthal reported the first verrucous carcinoma case that was supported by evidence in 1941. They presented as well-differentiated case of squamous cell carcinoma (SCC) [5]

Numerous synonyms, including carcinoma cuniculatum, epithelioma cuniculatum, Beckman's tumor, Buschke Lowenstein tumor, and florid oral papillomatosis, have been used in literature to describe this malignancy. [6] One of the lesion that has little chance of becoming aggressive is verrucous carcinoma. [7] It mostly has a pebbly micronodular surface, a sluggish growth pace, and an exophytic growth [8]. The diagnosis in verrucous lesions of the oral cavity can range from verrucous hyperplasia to verrucous proliferative leukoplakia and verrucous carcinoma.

In this, we discuss a case presentation of 50 year old female who presented with a ulcer on the left buccal mucosa.

CASE REPORT:

A 50 year old female patient came to the Department of Oral and Maxillofacial Pathology, with a chief complaint of painful ulcer and swelling in left side of the cheek for past 2 months, pain was continuous, dull throbbing in nature that aggravated on mastication and relieved on taking medications and also ulcer increased in size to attain the present size. Patient had a personal history of betel nut chewing with the frequency of 2-3 times a day for the past 10 years. There was no relavent medical history.

On extra-oral examination, a mild gross facial asymmetry was seen since a diffuse swelling was evident over the left lower middle third of the face and the swelling was 5*4 cm in size ,diffuse in shape with no discoloration and skin over the swelling was normal and pinchable. The surface was smooth and soft in consistency with no tenderness evident on palpation. There were no evidence of pus discharge or bleeding. On intra-oral soft tissue examination, an ulceroproliferative lesion was seen, measuring of size 3*2cm, oval in shape, red in color with a rough surface with irregular edges. The ulcer extended anteriorly 2cm from left commissure of lip, posteriorly approximately 4cm from retromolar trigone, superiorly into maxillary buccal vestibule and inferiorly 2cm below the occlusal level. With these clinical findings, the provisional diagnosis was attained to be verruca vulgaris of left buccal mucosa.

Under local anesthesia, an incisional biopsy was performed and the incised specimen was sent for histopathological evaluation and it revealed features like stratified squamous lining epithelium exhibiting hyperkeratosis, parakeratosis and irregular acanthosis resulting in bulbous intrusions into the underlying stroma with pushing margins. The individual tumor cells were evident with intraepithelial keratin pearls. By this a diagnosis of verrucous carcinoma of left buccal mucosa was given.

The patient was also advised to take blood investigations. Complete hemogram, blood glucose, liver, and kidney function tests were performed and was found normal. The patient was then referred again to the Department of oral and maxillofacial surgery for surgical management. Wide local excision with selective neck dissection and buccinator muscle rotational flap reconstruction surgery was performed and the tumor was excised. The excised tumor was then sent for histopathological examination.

In histopathological findings, the macroscopic features showed mucosal surface showing a proliferative grey brown lesion measuring 1.8 x 1.5 x 0.4 cm and on microscopic examination, the mucosa was lined by hyperplastic squamous epithelium with hyperkeratosis, papillomatosis, dysplasia, atypical epithelial downgrowth and underlying infiltrating malignant neoplasm composed of few nests and islands of atypical cells in the subepithelium. The atypical cells were polygonal with nucleomegaly, vesicular nuclei, prominent nucleoli and moderate cytoplasm. Keratin pearls were seen. Subepithelial fibrocollagenous stroma shows brisk lymphoid infiltrate with few eosinophils. The tumor invaded subepithelial fibrocollagenous stroma and skeletal muscle fibers. The tumor did not

infiltrate underlying fibroadipose tissue or minor salivary gland acini. Single lymph node on the deeper aspect showed reactive changes, free of tumor. Deep margin was free of tumor. The pathological stage classification (ptnm, ajcc 8th edition) of pT1 / N0 / Mx (STAGE I) was given. Hence the final diagnosis of verrucous carcinoma of left buccal mucosa was given.

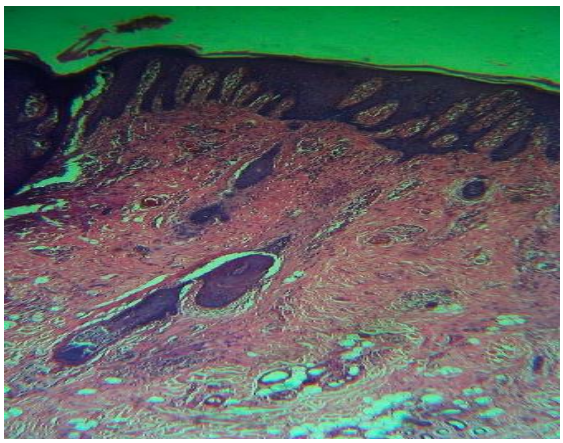

Figure 1: Hyperplastic squamous epithelium with hyperkeratosis, papillomatosis with subepithelium composed of nests and islands of atypical

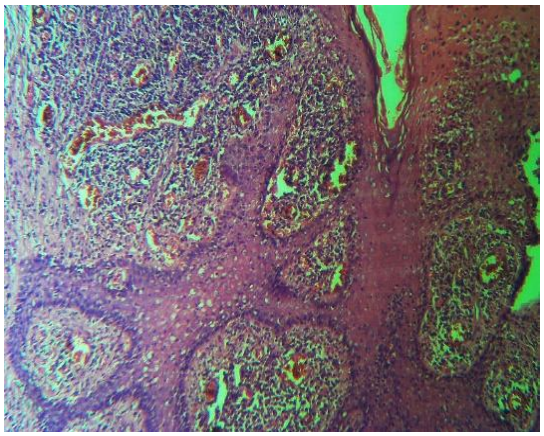

Figure 2:Fibrocollagenous stroma with lymphoid infiltration with few eosinophils

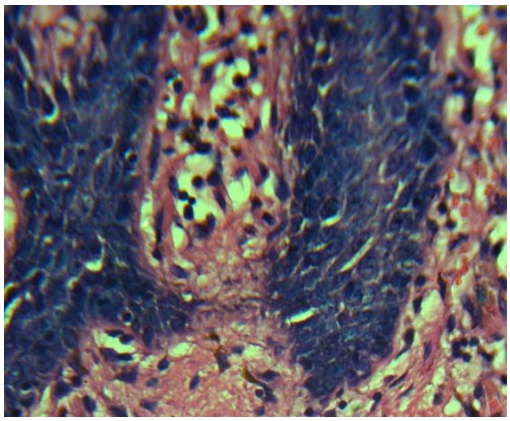

Figure 3: atypical cells were polygonal with nucleomegaly, vesicular nuclei, prominent nucleoli and moderate cytoplasm.

DISCUSSION:

Verrucous carcinoma (VC) is an uncommon, well-differentiated, low-grade SCC of the skin or mucosa that appears as a cauliflower- or verrucoid-like growth [9]. A distinction should be made between verrucous hyperplasia and verrucous carcinoma. Verrucous hyperplasia was described by

Shear and Pindborg in 1980. It is more superficial and does not extend deeper than the surrounding normal epithelium. It shows dysplasia and can later develop into verrucous carcinoma or squamous cell carcinoma [10]

It has been proved that 20% of the cases of VCs have small foci of well-differentiated SCCs within them and such tumors should be correctly recognized. A correct biopsy with sufficient depth can lead to the precise differentiation between the comparatively better VCs and those with frank malignant foci [11] verrucous carcinoma's has a lower reccurence rate, especially compared to other carcinomas of the oral cavity. Since it metastasizes only locally, surgical modalities are successful in managing it as long as an appropriate margin for excision is taken. Irriadiation may be added supplementally if there is extension to the retromolar area [12]

The term "verrucous" was applied for lesions showing a keratotic exophytic surface composed of sharp or blunt epithelial projections with keratin-filled invaginations (plugging), but without obvious fibrovascular cores [13] Verrucous carcinoma can develop de nova or from preexisting leukoplakia and in older individuals. OSMF, a premalignant condition caused by chronic betel nut chewing, can also lead to the development of verrucous carcinoma irrespective of the age of the patient [10]. Histopathology features of verrucous carcinoma was seen in the histological findings of this case which came to the confirmatory diagnosis of verrucous carcinoma in the left buccal mucosa.

CONCLUSION:

Verrucous carcinomas(VC) are a rare oral cancer with a promising prognosis. It is well established that Verrucous carcinoma can arise from potentially malignant disorders and it is expected that early screening and diagnosis of these disorders can help in improving the overall health quality of the patient and prevent mortality. As VCs in oral cavity are a distinct clinical entity with varied histopathology it becomes mandatory for the dental practicioners to detect and identify its course of development.

ANONYMITY:

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