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Case Study

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VERRUCOUS CARCINOMA -A CASE REPORT

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ABSTRACT

White lesions both physiologic as well as pathologic are relatively frequent in the oral cavity, the most common pathology being oral leukoplakia (OL). There are many variants of OL, one of which is oral proliferative verrucous leukoplakia (OPVL). OPVL is a rare clinico-pathological entity, which is slow growing, long-term progressive lesion, but remains an enigmatic and difficult to define. The etiology of OPVL remains still unclear. Tobacco use does not seem to have a significant influence on the appearance of OPVL. These lesions may occur both in smokers and non-smokers. It is observed more frequently in women and elderly patients over 60 years at the time of diagnosis. The buccal mucosa and tongue are the most frequently involved sites. It develops initially as a white plaque of hyperkeratosis that eventually becomes a multifocal disease with confluent, exophytic and proliferative features. Various published case series have presented OPVL as a disease with aggressive biological behavior due to its high probability of recurrence and a high rate of malignant transformation. Prognosis is poor for this seemingly harmless-appearing white lesion of the oral mucosa.

KEYWORD: Carcinoma, Leukoplakia, Malignant transformation, Proliferative verrucous leukoplakia, Hyperkeratosis.

INTRODUCTION

White lesions are relatively frequent in the oral cavity with prevalence of approximately 24.8%.[1] Among them oral leukoplakia (OL) is quite prevalent (0.2-3.6%).[1] In a retrospective study, Hansen *et al*.,[2] reported that 26 of the 30 lesions initially diagnosed as OL became oral carcinomas in patients followed for 1-20 years (average, 6.1 years). After this study, these lesions were named oral proliferative verrucous leukoplakia (OPVL).[3] According to the latest World Health Organization nomenclature, OPVL conforms to the new terminology of "potentially malignant disorders" given that it is neither a delimited lesion nor a condition.[1] World Health Organization described Leukoplakia as a "Precancerous Lesion".[4] However, more recently it has been suggested that the terms "premalignant "and "precancerous" should be substituted for "potentially malignant", and that all precancerous lesions and conditions should be grouped under the common name of "potentially malignant disorders".[5] Proliferative verrucous leukoplakia (PVL), a rare form of oral leukoplakia was first reported in 1985 by Hansen *et al*. as a long-term progressive condition (sometimes more than 20 years), which develops initially as a white plaque of hyperkeratosis that eventually becomes a multifocal disease with confluent, exophytic and proliferative features. The term that has been used before until the description of Hansen *et al*., was oral florid papillomatosis, which has now disappeared from the literature.[6] PVL presents with specific characteristics, mainly a more aggressive biological behavior than other forms of leukoplakia expressed by: A tendency toward multifocality; a high probability of recurrence; and a high rate of malignant transformation, which can range between 40% and 100% in a follow-up period of 4.4 to 11.6 years.[7-10] The lesions are slow-growing yet persistent, as well as irreversible and resistant to all forms of treatment with a high recurrence rate. Throughout its development, it is common to find erythematous and/or verrucous areas that occasionally progress to verrucous carcinoma or squamous cell carcinoma (SCC).

A 47-year-old male patient presented to the Department of Oral Medicine and Radiology at Tagore Dental College and Hospital with a chief complaint of Pain in his lower right back tooth region for past 3 months. On further examination, patient gives history of pain which is sharp, shooting pain it aggrevates on mastication and relieves on its own.Patient have deleterious habits history such as alcoholic for past 5 years occasionally and known betel net chewer but he know quit the habit before 6 years. He gave no history of any prior dental treatment.

On examination of tongue, inspection revealed there is an exophytic hyperkeratotic overgrowth which is seen in the dorsum side of tongue on right side and it is extended from anterior one third to posterior middle third of tongue, it is approximately 5*3 cm in size and warty, verrucal long papillary like projection is seen.

A whitish patch like lesion is also seen on the ventral side of tongue and it is approximately 4*5 cm in size.

On palpation, it is non scrapable, non tender, there is no indurations is seen.

Figure 1: Exophytic hyperkeratotic overgrowth seen on the dorsum of the tongue.

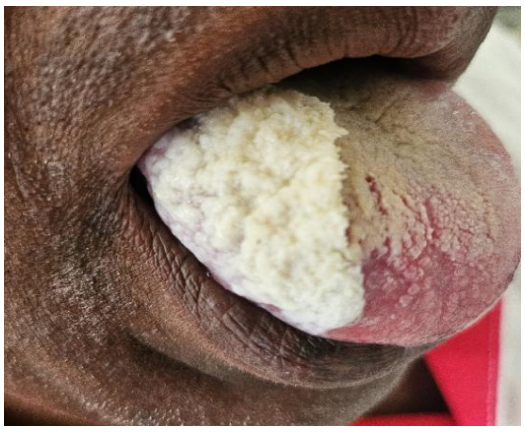

Figure 2: Veerucal pappilary projection is seen.

Figure 3: Whitish patch is seen on the ventral side of tongue.

The hard tissue findings revealed multiple dental caries along with moderate stains and calculus.

Taking into consideration the history and characteristic clinical features, the condition was provisionally diagnosed as proliferative verrucous leukoplakia. The differential diagnoses included lichenplanus, leukoedema, candidiasis, smokeless tobacco assocaiated lesion.

Because of enlarged size of this lesion and verrucal appearance biopsy was taken and send to histopathalogical examination was confirmed as VERRUCOUS CARCINOMA.

The patient was scheduled for HEMIGLOSSECTOMY. Surgical excision of the lesion was successfully completed. The patient advised to be checked for life at least once every 6 months.

DISCUSSION

OVC is a rare, and the pathogenesis is still debatable, but it is believed to be associated with human papillomavirus (HPV), and addiction to chewable tobacco and betel nut.[11] Walvekar et al.,[11] Huang et al.,[12] who studied Asian populations, found a higher incidence of OVC in men, with 77.4% and 94.9%, respectively. The culture of consuming betel nuts and chewing tobacco seems to explain these indicators.

Neville et al.[13] presents that in addition to the oral mucosa, VC has been identified in several extraoral sites, including the laryngeal, vulvovaginal, penile, anorectal, sinonasal and esophageal, as well as on the skin of the breast, armpit, ear canal and soles of the feet. Tumors in different anatomical sites of the mouth are not related to tobacco use.

Walvekar et al.,[11] Huang et al.,[12] Rekha e Angadi[14] agree that OVC mainly affects patients between 40 and 60 years old. Candau-Alvarez et al.1 found an average age of 69.14 years. We found an average of 77.6 years, corroborating the literature. Rekha e Angadi[14] showed a higher frequency in patients in the fifth decade of life. In addition, the authors found a higher prevalence of lesions in the mandible. Oliveira et al.[15] and Zhu et al.10 reported greater involvement in the lower lip, while Bagan et al.[16] and Gandolfo et al.[17] found that alveolar ridge and gingiva were the most affected.

The differential diagnosis of VC includes the SCC, verruca vulgaris, amelanotic melanoma, histoplasmosis, secondary syphilis, Darier's disease, white sponge nevus and lupus erythematosus.

Treatment modalities for OVC include surgical excision, chemotherapy, cryosurgery, intralesional or iontophoretic methods, systemic retinoid therapy and radiotherapy.

Neville et al.[13] points that the treatment of choice is surgical excision, and if cervical lymphadenomegaly is clinically evident, selective neck dissection can be

performed, although most cases may experience reactive lymphadenopathy instead of metastasis.

Approximately 90% of patients are disease-free after surgery. Radiotherapy is an alternative form of primary treatment, with worse local control, being considered less effective than surgery. In addition, it has been unpopular due reports of development of poorly differentiated anaplastic carcinoma after treatment.

CONCLUSION

OPVL is a rare, but highly aggressive form of OL, which requires special awareness on the part of the clinician. Therefore, it is recommended to have the earliest possible diagnosis and total excision of this lesion. The aim/intention of reporting this case was to report a case with typical clinical and histologic features of OPVL so as to sensitize the oral physicians. The care should be taken to follow-up these cases for a long time even after surgical management as they have higher recurrence rate and are also known to undergo malignant transformation. Because OVC are malignant lesions, knowledge of their epidemiology and characteristics is important for a correct management. The role of the dental practioner is to recognize the disease early, make the correct diagnosis and referral for medical treatment.

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