

Verrucous Carcinoma of Gingiva

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ABSTRACT

Verrucous carcinoma is a warty variant of squamous cell carcinoma characterised by a predominantly exophytic overgrowth of well differentiated keratinised epithelium having minimal atypia and with locally destructive pushing margins at its interface with underlying connective tissue. A 39-year-old male reported with a chief complaint of overgrowth of gums in the lower left jaw region for one year. Medical history was non-significant. White exophytic sessile cauliflower like mass of size 15 mm × 15 mm was present on the gingiva extending from lower left canine to first molar involving buccal vestibule. After phase I therapy, excisional biopsy was done and histopathological report confirmed verrucous carcinoma. Healing was uneventful and no recurrence was observed till 2 years. Patient is kept under regular follow up.

Keywords: Excisional biopsy; exophytic lesions; verrucous carcinoma.

INTRODUCTION

Verrucous carcinoma (VC) was defined by Ackerman in 1948 as a diagnostically problematic squamous-cell-neoplasia involving lip, oropharyngeal, and laryngeal mucosa.¹ Hence, this neoplasm was also known as "Ackerman's tumour." Different names of verrucous carcinoma are Buschke-Loewenstein tumour, florid oral papillomatosis, epitheliomacuniculatum, and carcinoma cuniculatum.²

This uncommon lesion, in its pure form, is considered a disease of later life, typically occurring in the seventh-eighth decades, with strong male predominance, because of their historically common practice of chewing tobacco. Verrucous carcinoma is a slow growing tumour which brings the patient to the clinician when it grows to a considerable size. It appears as papillary non-ulcerated gray white or red mass with very broad base of attachment. It is warty variant of squamous cell carcinoma and characterised by predominantly exophytic overgrowth of well differentiated keratinised epithelium having minimal atypia and with locally destructive pushing margin at its interface with underlying connective tissue.³ Usually, oral VC presents a high tendency of local

invasion, with low tendency of dissemination, depending on tumour size and evolution time, with very low tendency to metastasize.⁴ Verrucous carcinoma usually debuts as an abnormal growth or as change in the consistency of a previous potentially malignant disorder of oral cavity.

CASE REPORT

A 39-year-old male reported to the Department of Periodontology and Oral Implantology, BP Koirala Institute of Health Sciences with a chief complaint of overgrowth of gums in the lower left jaw for one year, the overgrowth progressively increased in size which was associated with mild pain while brushing and patient had difficulty in mastication. He had a non-contributory medical history. He had the habit of chewing tobacco in the form of gutkha for 20 years. On intraoral examination, white exophytic sessile cauliflower like mass of size approximately 15 mm × 15 mm was present on the gingiva extending from 33 to 36 region involving buccal vestibule (Figure 1, 2). Radiographically no any abnormalities were detected.



Figure 1: Pre-operative view.

Figure 2: Pre-operative view.

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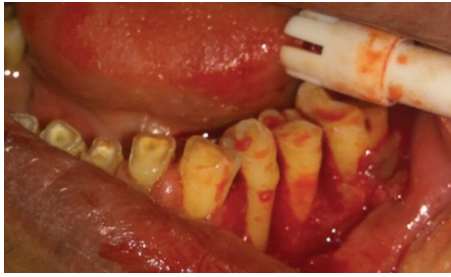


Figure 3: Intra-operative.

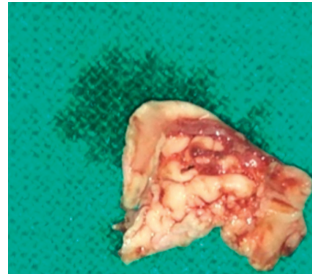


Figure 4: Specimen for H/P Examination (excisional biopsy).

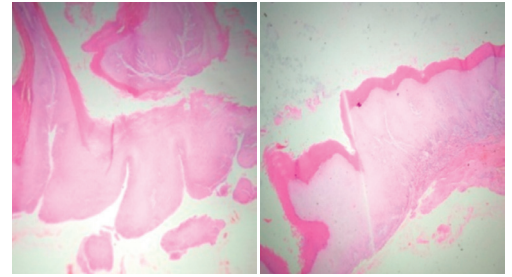


Figure 5: H and E stain under 4X.

Based on clinical findings provisional diagnosis of verrucous leucoplakia was made as the evidence was inconclusive to reach a confirmatory diagnosis. conventional squamous cell carcinoma, especially with those showing “verrucoid” features, proliferative verrucous leukoplakia (PVL), reactive keratosis and epithelial hyperplasia, pseudoepitheliomatous hyperplasia, verruca vulgaris, were kept under differential diagnosis. The laboratory tests were within normal limits and serological tests were negative.

In phase I therapy counselling for cessation of habit and scaling and root planing (SRP) was done. Under aseptic condition excisional biopsy was performed under local anaesthesia with 2% lignocaine and 1: 200000 adrenaline. The specimen was sent for the histopathological examination to the department of oral pathology after fixation in 10% formalin (Figure 3, 4). Periodontal dressing (Coe Pak) was applied locally at the surgical site, Ibuprofen 400 mg

thrice daily for two days was given for post-operative pain management. Chlorhexidine mouthwash 0.2% twice daily for two weeks was prescribed. Oral hygiene instructions were provided.

Histopathological examination revealed hyperparakeratotic hyperplastic stratified squamous epithelium with broad base rete ridges and parakeratin plugging. The underlying connective tissue was fibrocellular with subepithelial dense inflammatory cellular infiltrate predominantly lymphocyte and plasma cell. Numerous endothelial cells lined blood vessels of variable size were also evident. These findings were suggestive of verrucous carcinoma (micro photograph, Figure 5).

Healing was uneventful with regular follow up (10 days (Figure 6), one month (Figure 7), six months (Figure 8), two years (Figure 9). Patient is still under regular follow up with no recurrence.



Figure 6: After 10 days.



Figure 7: After 30 days.



Figure 8: After 6 months.



Figure 9: After 2 years.

DISCUSSION

The prevalence of oral verrucous carcinoma (OVC) among all carcinomas affecting the oral cavity and oropharynx is low.⁵ Asian patients reflect its greater incidence in men with prevalence as high as 77.4 to 94.9%.⁶

A very high percentage of patient with this disease are tobacco chewers, snuff or smoke tobacco heavily and these people usually have ill-fitting denture. The role of the Human Papilloma virus in OVC oncogenesis is less in comparison to the squamous cell carcinoma oncogenesis.⁷ Studies indicate that OVC primarily affects patients between age of 40 and 60 years.⁶ The patient in our case was also male of the almost similar age group, with long history of chewing tobacco. All mucosal sites of the oral cavity can be affected. Pain and difficulty in mastication are common complaints but bleeding is rare. The present case exhibited similar symptoms. The diagnosis of VC is established by correlating clinical and histopathological findings.

Verrucous carcinoma can be differentiated from squamous cell carcinoma on basis of mode of growth, infrequent dysplasia and absence of metaplasia. So, surgeons must provide adequate specimens including the full thickness of the tumours and adjacent uninvolved mucosa for correct diagnosis. Taking it into consideration, excisional biopsy was done in the current case.

Koch et al suggested that patients with OVC treated with surgery first had better survival.⁸ The literature supports the concept that radiotherapy is contraindicated in the treatment of VC for the occurrence of radiation-induced anaplastic transformation of the neoplasm.⁸ As the literature is confusing, it retains that radiotherapy could be used only in selected clinical settings, when surgery is not possible. Therefore, the management of our case was done with surgical approach. Recurrence rate at 2 years of follow-up stood at 7.69%.⁶ The long-term follow-up studies of OVC patients refer highly variable recurrence rates between 0 and 66.7% at 5 years, which mostly depend on the type of treatment that has been given.⁹

Recurrence was not observed in our case till 2 years of follow-up. Though there were gingival recession present in the few teeth of lower anterior segment patient was unwillingness for the treatment so, root coverage procedure was not performed.

When warty and exophytic lesions are present in the oral cavity, both the clinician and pathologist should be careful in making diagnosis and differentiating it with malignant lesion. Patient counselling and regular monitoring should be done after excision due to higher recurrence is vital in these cases.

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