

Verrucous Carcinoma of the Buccal Mucosa With Extension to the Cheek

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PRACTICE POINTS

- Verrucous carcinoma is a slow-growing tumor that often presents in advanced clinical stages because it is poorly understood and underrecognized, especially in developing countries.
- Good clinicopathological correlation is required in cases of verrucous carcinoma to avoid misdiagnosis and provide appropriate treatment.
- Case-specific management should be considered, as presentation of verrucous carcinoma varies.
- Radiography should be considered to assess for lymph node involvement.

To the Editor:

Verrucous carcinoma is an uncommon type of squamous cell carcinoma (SCC) and was first described by Ackerman¹ in 1948. Rock and Fisher² called this condition oral florid papillomatosis. The distinctive features of this tumor are low-grade malignancy, slow growth, local invasiveness, and rarely intra-oral and extraoral metastasis. Extraorally, it can occur in any part of the body,³ a common site being the anogenital region. Depending on the area of occurrence, the condition also is known as Buschke-Lowenstein tumor⁴ or giant condyloma acuminatum (anogenital region) and carcinoma cuniculatum⁵ (plantar region). The exact etiology of the condition is unknown, though it is associated with human papillomavirus infection, traumatic scars, chronic infection, tobacco, and chemical carcinogens.³ We report a rare case of verrucous carcinoma originating from the buccal mucosa

that subsequently spread to involve the lip and cheek as a large cauliflowerlike growth, which is an unusual presentation.

A 65-year-old man presented to the dermatology department with a painless growth inside the left side of the oral cavity that had developed 5 years prior as a growth on the left buccal mucosa. The lesion gradually increased in size to involve the left oral commissure including the upper and lower lips and the skin of the left cheek; it extended beyond the nasolabial fold in a cauliflowerlike pattern. The lesion was insidious in onset and was not associated with pain, itching, or bleeding. The patient chewed tobacco for the last 40 years, with no similar lesions on any part of the body. On physical examination a warty papilliform lesion was seen on the left buccal mucosa with extension to 2 cm of the upper and lower lip on the left side including the left oral commissure and the skin of the left cheek beyond the nasolabial fold where it appeared as a cauliflowerlike growth measuring 4×5 cm in size (Figure 1). No notable lymphadenopathy was present.

Digital radiographs of the skull (posteroanterior oblique view)(Figure 2) and mandible (left oblique view) showed a lobulated soft-tissue density lesion overlying the left half of the mandible (near the mandibular angle) with involvement of both the upper and lower lips on the left side. However, no obvious underlying bony erosion was noted.

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Figure 1. Cauliflowerlike growth originating from the buccal mucosa and extending to the skin of the left cheek.



Figure 2. A radiograph of the skull (posteroanterior [PA] oblique view) showed a lobulated soft-tissue density lesion overlying the left half of the mandible (near the mandibular angle) with involvement of both the upper and lower lips on the left side without obvious underlying bony erosion.

Computed tomography revealed a large soft-tissue mass (41.3×35.3 mm)(Figure 3A) involving the left buccal mucosa with extension into overlying muscle, subcutaneous tissue, and skin. Externally, the lesion was exophytic, irregular, and polypoidal with surface ulceration. Medially, the lesion involved the left oral commissure and parts of the adjoining upper and lower lips. No underlying bony erosion was seen.

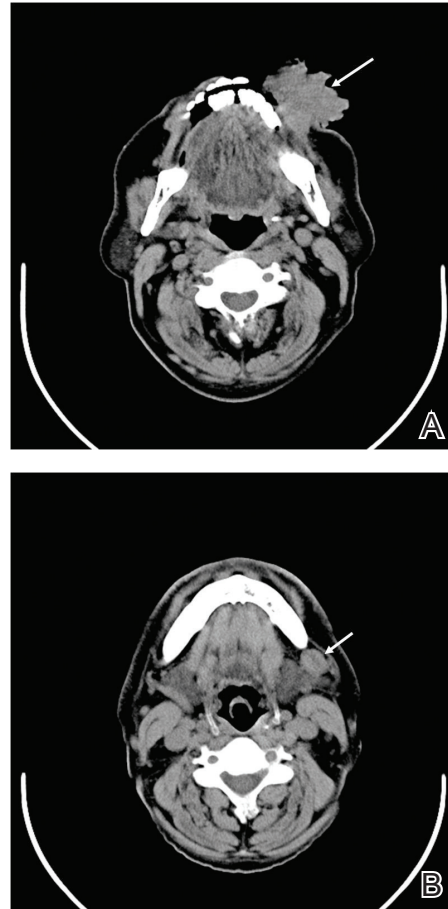


Figure 3. Computed tomography revealed a large soft-tissue mass involving the left buccal mucosa, overlying soft tissues and skin with exophytic ulceropolypoidal surface (white arrow)(A). An enlarged lymph node was noted in the left submandibular region (white arrow)(B).

An enlarged lymph node measuring 20×15 mm was noted in the left upper deep cervical group in the submandibular region (Figure 3B).

Our clinical differential diagnosis included verrucous carcinoma and hypertrophic variety of lupus vulgaris. A 1×2-cm diagnostic incisional biopsy was performed from the cauliflowerlike growth and ultrasound-guided fine-needle aspiration was done from the lymph node. Histopathology revealed a hyperplastic stratified squamous epithelium with upward extension of verrucous projections, which was largely superficial to the adjacent epithelium (Figure 4A). In addition to the surface verrucous projections, there was lesion extension into the subepithelial zone in the form of round club-shaped protrusions (Figure 4B). There was no loss of polarity in these downward proliferations. No horn pearl formation was present. Fine-needle aspiration revealed reactive lymphadenitis.

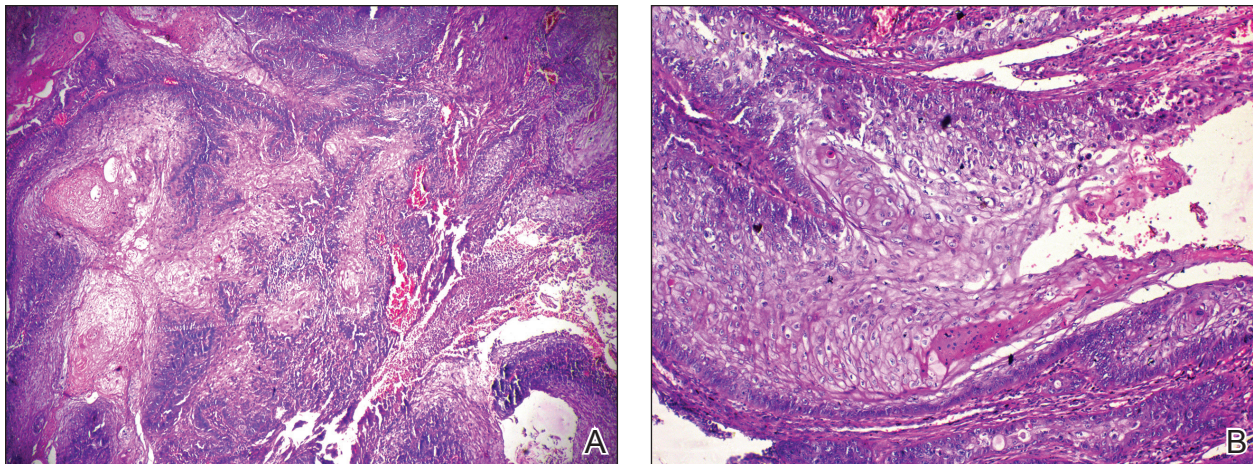


Figure 4. Histopathology showed verrucous configuration of the hyperplastic stratified squamous epithelium (A) (H&E, original magnification $\times 10$). Verrucous projections with round club-shaped edges extended into the underlying connective tissue (B) (H&E, original magnification $\times 40$).

The final diagnosis of verrucous carcinoma was made and the patient was referred to the oncosurgery department for further management.

Verrucous carcinoma is a rare, low-grade, well-differentiated SCC of the skin or mucosa presenting with a verrucoid or cauliflowerlike appearance. It shows locally aggressive behavior and has low metastatic potential,⁶ a low degree of dysplasia, and a good prognosis. Because it is a tumor with predominantly horizontal growth, it tends to erode more than infiltrate. It does not present with remote metastasis.⁷ It has been known by several different names, usually related to anatomic sites (eg, Ackerman tumor, oral florid papillomatosis, carcinoma cuniculatum).

In the oral cavity, verrucous carcinoma constitutes 2% to 4.5% of all forms of SCC seen mainly in men older than 50 years and also is associated with a high incidence (37.7%) of a second primary tumor mainly in the oral mucosa (eg, tongue, lips, palate, salivary gland).⁸ Indudharan et al⁹ reported a case of verrucous carcinoma of the maxillary antrum in a young male patient, which also was a rare entity. Verrucous carcinoma is thought to predominantly affect elderly men. Walvekar et al¹⁰ reported a male to female ratio of 3.6 to 1 in patients with verrucous carcinoma, with a mean age of 53.9 years. According to Varshney et al,¹¹ patients may range in age from the fourth to eighth decades of life, with a mean age of 60 years; 80% are male. The etiopathogenesis of verrucous carcinoma is related to the following carcinogens: biologic (eg, human papillomavirus), chemical (eg, smoking), and physical (eg, constant trauma).

Verrucous carcinoma should be considered in the differential diagnosis of slow-growing, locally

spreading tumors. Oral tumors, especially in tobacco chewers, should raise suspicion of verrucous carcinoma, which will enable prompt management of the tumor.

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