Oral Verrucous Carcinoma

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Key words: verrucous carcinoma, Ackerman's tumor, oral cavity

A 34-year-old Indian male presented with a white, painless growth on the upper posterior region of the oral cavity since 6 months. Patient had a history of chewing betel quid *(a combination of betel leaf, areca extract and lime)* since 8 years, 7-8 times/day in the lower right buccal vestibule for 10 minutes before spitting them out. Intra-oral examination revealed a proliferative, verruco-papillary growth on the left maxillary alveolar gingiva extending to the palate. The lesion was approximately 3x4 cm in size, well defined with irregular margins (Figure 1). On the basis of clinical features a provisional diagnosis of proliferative verrucous leukoplakia (PVL) was given. Incisional biopsy of the lesion was taken and excised tissue was sent for histopathological examination.

Histopathological examination revealed stratified squamous parakeratinized epithelium with broad acanthotic, elephant foot like rate ridges growing down into the stroma (Figure 2). Numerous cleft like spaces were seen, filled with parakeratin (Figure 3). The final diagnosis of oral verrucous carcinoma was made. Surgical excision of the lesion was done and six months follow up period of the patient was uneventful.

Oral verrucous carcinoma (OVC), a variant of squamous cell carcinoma (SCC), was first described by Lauren V. Ackerman in 1948.[1] OVC has a predilection for male in the sixth decade, with a slow growth rate, and with potential to become invasive if not treated properly. Distant metastasis is rare.[2]

In most cases, verrucous carcinoma, verrucous hyperplasia and proliferative verrucous leukoplakia are clinically indistinguishable from each other so histopathological evidence is necessary to render an appropriate diagnosis. Deeper sections and complete sampling are required not just to distinguish verrucous lesion in general, but to rule out the presence of concomitant conventional squamous cell carcinoma and hybrid squamous cell carcinoma in the sample. The differentiation of verrucous carcinoma with other verruco-papillary benign and malignant processes is difficult although it can be differentiated with keratinizing squamous cell carcinoma on the basis of characteristic histological features[3] (Table 1). The best treatment modality of OVC is surgical resection of the tumor.[4]

Table 1. Histopathological differences between squamous cell carcinoma and verrucous carcinoma

Verrucous carcinoma	Squamous cell carcinoma
Histopathological features	Histopathological features
Epithelium seldom shows dysplastic features.	Epithelium shows high dysplasia.
Elephant foot like rete ridges is seen.	Elephant foot like rete ridges is not seen.
Parakeratin plugging is present.	Parakeratin plugging is usually absent.
Keratin pearls are not seen.	Keratin pearls are seen.
Breach in the basement membrane is absent.	Breach in the basement membrane is present.
Islands of dysplastic epithelium are not seen in the connective tissue.	Islands of dysplastic epithelium are seen in the connective tissue.

ISSN 0118-3265
Printed in the Philippines.

Received: 3 March 2016.
Accepted: 13 April 2016.
Published online first: 27 April 2016.
http://dx.doi.org/10.21141/PJP.2016.001

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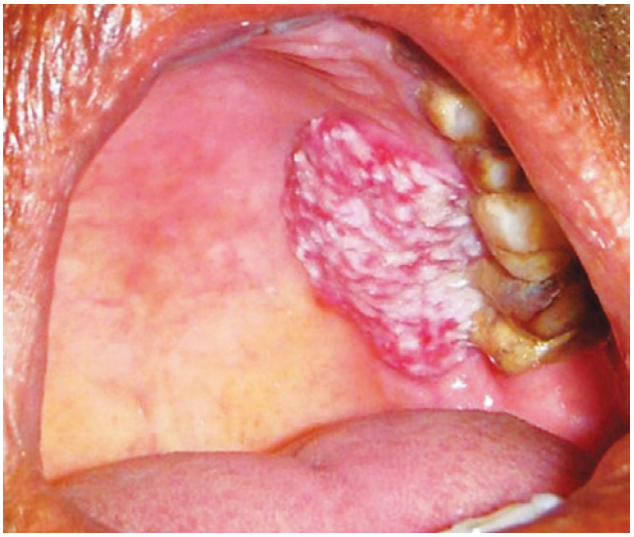

Figure 1. Clinical appearance of the lesion.

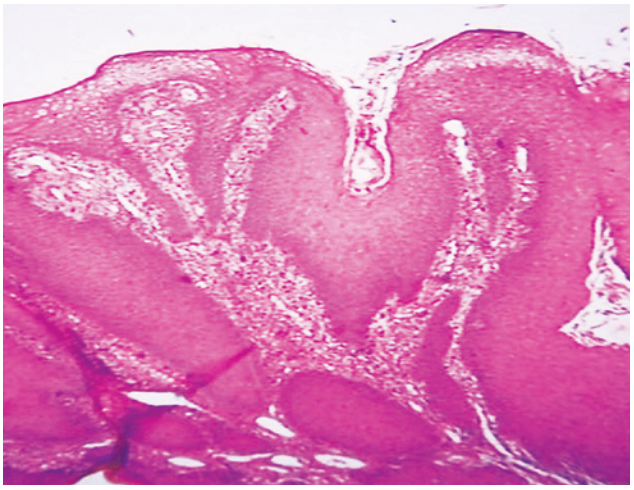

Figure 2. Broad elephant foot like rete ridges and underlying connective tissue stroma. (200x, H&E).

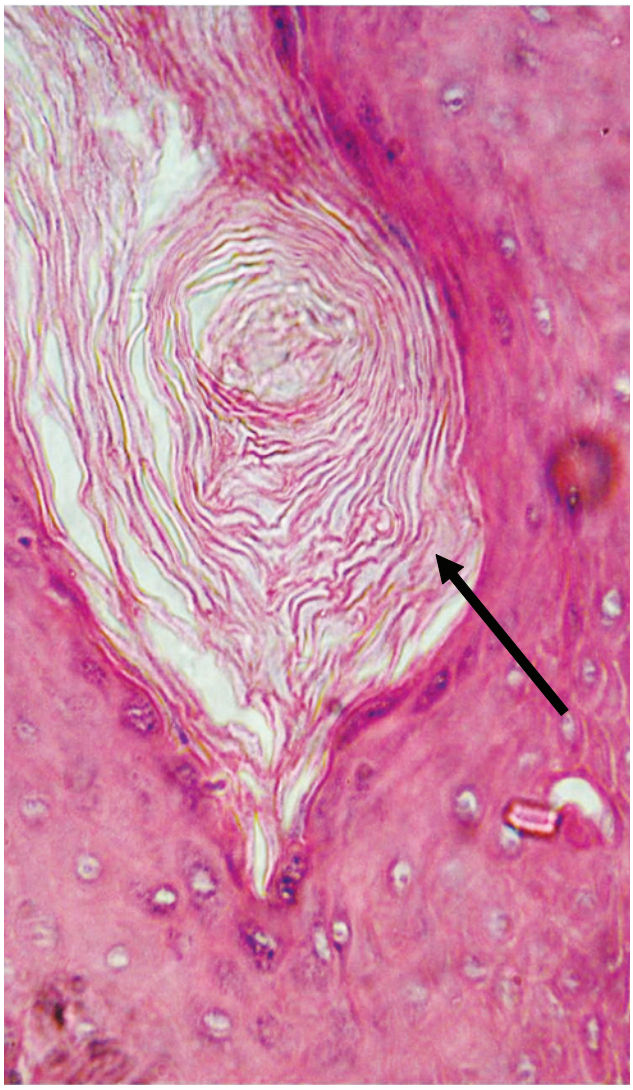

Figure 3. Parakeratin plugging (400x, H&E).

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