

D240 as a Potential Marker that Differentiate Verrucous Carcinoma from Squamous Cell Papilloma

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Abstract

- Background** Verrucous carcinoma is a distinct variant of oral squamous cell carcinoma characterized by slow growth and rare metastases. It may present diagnostic difficulties as it may be inaccurately diagnosed as squamous cell papilloma.
- Objective** The study performed a comparative immunohistochemical staining for both entities to obtain a possible method of differentiation.
- Methods** The study involved 13 samples of oral verrucous carcinomas and 10 samples of oral squamous cell papillomas which were stained immunohistochemically with antibodies to the lymphatic endothelial marker D240.
- Results** In all samples, the entire epithelium of verrucous carcinomas was positively stained with D240 whereas only the basal cell layer of squamous cell papillomas was positive.
- Conclusion** D240 could be used as a differentiating marker between oral verrucous carcinomas and squamous cell papillomas.
- Keywords** Verrucous carcinoma, Squamous cell papillomas, D240.

Introduction

Verrucous carcinoma (VC) is a rare variant of oral squamous cell carcinoma which was first described by Ackerman in 1948⁽¹⁾. It is distinct in its slow growth and ability to become locally aggressive if not treated properly. However, even with local tumor progression, regional or distant metastasis is rare⁽²⁾. Its occurrence originally was related to the use of chewing tobacco or snuff, although this was never substantiated by controlled epidemiologic investigations. Moreover, HPV appears to be of etiologic significance⁽³⁾, although not supported universally. VC predominantly occurs in older people, the majority of cases being observed in individuals in

their sixth decade or later, and has a higher incidence in males⁽⁴⁾.

On clinical examination, VC appears as a relatively well-circumscribed, elevated, nodular mass with a surface that may be pebbled, papillary, verrucous, or smooth. Depending on the degree of surface keratinization, it varies in color from white to red to admixtures of both⁽⁵⁾.

VC is broadly based and invasive, with plump papillary invaginations of thickened and infolding epithelium that lack the usual cytologic criteria of malignancy⁽⁴⁾. The exophytic surface is covered by abundant orthokeratin and/or parakeratin that also fill the crevices of deep surface invaginations. Because the lesions are well differentiated,