Case Report

ORAL SQUAMOUS CELL PAPILLOMA- A CASE REPORT

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ABSTRACT

Squamous cell papilloma is a very rare disease whose occurrence may represent a caveat of viral, veneral or precancerous condition. The most common site is the palateuvula area followed by tongue and lips. As an oral lesion, it raises concern because of its clinical appearance, which may mimic exophytic carcinoma, verrucous carcinoma or condyloma acuminatum. Its pathogenesis is related to human papilloma virus but there is controversy regarding its viral origin. Conservative surgical excision is the treatment of choice with rare recurrence. We present a case of squamous papilloma presenting as oral.

Keywords: Squamous papilloma, Human papilloma virus, Condyloma acuminatum, Koilocytic cell, Interferon

INTRODUCTION

WHO defines papilloma as “a range of localised hyperplastic exophytic and polyoid lesions of hyperplastic epithelium with a verrucous or cauliflower-like morphology.” Squamous papilloma is considered to be benign, hyperplastic wart-like localized proliferation of the oral epithelium¹. Papillomas are the fourth most common oral mucosal mass accounting for around 3-4% of all biopsied oral soft tissue lesions². It is still unknown whether all intraoral squamous papillomas are related etiologically to verruca vulgaris of the epidermis as both these lesions are clinically and microscopically indistinguishable³. In the oral cavity it may raise concern as it clinically may resemble number of verruca-papillary proliferations⁴. We present a case of squamous papilloma arising on an attached gingiva of the oral cavity.

CASE REPORT

A 26 year old female reported to the outpatient department with growth on gums on lower left posterior teeth since six months which initially was small in size but gradually increased in size
since two months. The patient gave a history of dull intermittent pain associated with the growth during chewing. Patient had a history of cleaning her teeth with a tobacco powder. Past medical and dental history was non-contributory. General and extra oral examination of the patient did not reveal any significant findings. At the time of intraoral examination, gingival overgrowth was present in attached gingiva in relation to 37, 38. The growth was solitary, exophytic with finger-like projection arising from a pedunculated base, round to oval in shape and irregular margins, creamy white in color, soft in consistency, measuring 0.8 x 0.5 cm. The left submandibular lymph node was palpable and non-tender. A provisional diagnosis of papilloma was made. The swelling was excised and sent for histopathological examination. H and E staining was performed. Histopathology revealed the presence of Stratified squamous parakeratinised hyperplastic epithelium extending in finger like projections having thin and long rete ridges with underlying fibrovascular connective tissue stroma. Few clear cells resembling Koilocytes were also seen in epithelium. The above features were consistent with the diagnosis of squamous papilloma. The patient was recalled after 7 days for suture removal and follow up, during which healing was found satisfactory.

**DISCUSSION**

Oral squamous papillomas are benign exophytic lesions presenting as a papillary or verruciform proliferation. This lesion was first described as a gingival “wart” by Tomes in 1848. The palatal complex is the most common site of occurrence. It has also been found to affect the uvula, tongue, lips and gingiva. These lesions are characterized by an exophytic, painless growth, the digitiform surface projections giving it a “cauliflower” like appearance. Papillomas usually take up the colour of the adjoining mucosa but may appear whitish if the surface is hyperkeratotic. Papillomas have been reported frequently in children but it may affect any age group, lesions in the fourth and fifth decade being most common. The scientific community is divided regarding the sex predilection of this lesion, but an assessment of the literature reveals a male predominance. Although the exact etiology of papilloma is unknown, it is most commonly associated with HPV 6, 11 and 16. The invasion of HPV into the nuclei of cells in the spinous layer, induces a series of proliferative alterations that results in tumor growth. In the oral cavity, HPV has been associated with other lesions such as verruca vulgaris (HPV type 2, 4 and 20) and focal epithelial hyperplasia (HPV types 13 and 32). Transmission of the virus occurs through maternal-fetal, maternal-neonatal, auto-inoculation or through sexual contact. The microscopic appearance of papilloma reveals the proliferation of the spinous cells in the form of long thin finger like projections extending above the surface of the mucosa containing a thin connective tissue core. The connective tissue is continuous with the stroma of the stalk, the body of the mass and the surface projections. The surface of the epithelium may reveal hyperparakeratosis.

![Fig 1: Clinical appearance of the lesion on the left gingival mucosa cauliflower shaped appearance of the lesion](image)

Basilar hyperplasia and mild mitotic activity may be present occasionally. This should be considered with caution as it can mislead to a diagnosis of mild epithelial dysplasia. There have also been reports of superimposed mycotic infections. The most characteristic feature of HPV infections is the presence of koilocytes. A Koilocyte is an HPV infected squamous epithelial cell. The cellular changes/cytopathic effects observed are nuclear enlargement.
malignancy being weak.\textsuperscript{11} Papillomas resemble a number of verruco-papillary lesions clinically and microscopically such as Verruca vulgaris, condyloma acuminateum, inflammatory papillary hyperplasia, verrucous carcinoma and papillary variant of squamous cell carcinoma (PSCC). Verruca vulgaris differs from papilloma in that the elongated rete ridges converge to the center of the lesion producing a “cupping” effect. More over verruca vulgaris presents with intra-nuclear viral inclusions which are seldom seen in papillomas.\textsuperscript{5} Condyloma acuminateum rarely presents as a pedunculated lesion and its surface projections are more elongated and pointed and dysplasia in basal cell layer, it is more pronounced in condylomas.\textsuperscript{5} In the case of inflammatory papillary hyperplasia, a cause and effect relation needs to established.\textsuperscript{4} Lack of prominent cellular atypia distinguishes papillomas from conventional SCC and PSCC. Differentiating papilloma from verrucous carcinoma could prove to be cumbersome. In verrucous carcinoma the rete ridges may reveal enodophytic growth pattern. The inwardly projecting epithelial zone often causes a margin of normal epithelium to retract down into the connective tissue which may help to distinguish it from other exophytic lesions.\textsuperscript{5} Even though squamous papilloma is a HPV induced lesion, its infectivity is much less pronounced. Malignant transformation of papillomas in other areas such as the larynx and the trachea has been reported. How far is this applicable to the oral cavity needs to be seen.\textsuperscript{12} The commonly

Fig 2- Biopsy specimen

Fig 3: Stratified squamous parakeratinised hyperplastic epithelium extending in finger like projections having thin and long rete ridges with underlying fibrovascular connective tissue stroma

(two to three times normal size), irregularity of the nuclear membrane contour, darker than normal staining pattern in the nucleus and the presence of peri-nuclear halo. In a study conducted by Carneiro et al, koilocytes were demonstrated in 100% of the oral squamous papilloma studied.\textsuperscript{11} Immunohistochemical analysis utilizing BP53-12 and Pab 240 showed negative or weak immunostaining for both the markers. This proved the benign nature of the lesion and the chances of conversion into
employed treatment modalities are surgical excision and laser ablation. Others include electrocautery, cryosurgery and intralesional injection of interferon. Recurrence is uncommon except for people infected with HIV.11

CONCLUSION
Even though squamous papillomas are common tumors of the oral cavity, its histopathological features are vague and overlap with a number of other verruca-papillary lesions. Differentiating papillomas from other lesions may prove to be a challenge and requires a shrewd eye to look for minute features that helps differentiate it from other similar lesions. With papillomas in other regions showing malignant transformations, the potentially malignant nature of papilloma if present needs to be explored.

REFERENCES


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