Oral Squamous Papilloma with Dysplastic Features
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ABSTRACT
Squamous papillomas are common lesions of the oral mucosa with a predilection for the mucosa of the hard and soft palate. 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. We present a case of squamous papilloma with moderate dysplasia presenting as oral lesion.

Keywords: Squamous papilloma, Human papilloma virus, Condyloma acuminatum

INTRODUCTION
Oral squamous papilloma (OSP) is a benign proliferation of the stratified squamous epithelium, which results in a papillary or verrucous exophytic mass. It appears as pedunculated or sessile, white or normal coloured cauliflower-like projections that arise from the mucosal surface. The common sites in the oral cavity are the palate, uvula, tongue and lips. The soft palate is the most common site and accounts for 20% of the lesions[1]. Most of the papillomas measure <1.0 cm. Squamous papillomas are common lesions of the oral mucosa with a predilection for the mucosa of the hard and soft palate including the uvula and the vermillion of the lips. It is an innocuous lesion that is neither transmissible nor threatening. As an oral lesion, it raises concern because of its clinical appearance, which may mimic exophytic carcinoma, verrucous carcinoma or condyloma acuminatum. Many considered its pathogenesis as being from the human papillomavirus (HPV). But the recent literature suggests that the presence of HPV may be merely an incidental finding unrelated to the development of a squamous papilloma (Marx an[2]). We present a case of squamous papilloma with moderate dysplasia in the form of oral lesions.

CASE REPORT
A 48-year-old married male reported with a chief complaint of growth on the right lateral border of tongue for 6 months (Figure 1). The patient was occasional alcoholic and non-tobacco chewer. History regarding the growth revealed that it was first seen 6 months prior as a slow-growing non-tender papule. The present lesion was exophytic and sessile in nature, whitish in colour with pebbled surface, soft in consistency, 1 cm × 1.5 cm in size, circular in shape and situated on right lateral border of the tongue area. There was mild pain over the swelling. The patient complains of difficulty in speech and eating. He is under medication for past 1½ years for parkinsonism and osteopenia in cervical and lumbar spine. The right submandibular lymph nodes were palpable and tender.

Provisional diagnosis of the oral wart was made. Excisional biopsy of the lesion was performed with a 1-mm margin (Figure 2). The histopathological section reveals broad-based elevated growth of stratified squamous epithelium, papilomatosis with acanthosis, hyperkeratosis, parakeratosis with marked hyperplasia, downward proliferation of rete-ridges with their fusion and budding with intact basal cell layer. Cells show moderate degree of pleomorphism, nuclei are large and
show moderate to severe dysplasia, foci of disorganisation of cells within epithelium with vertically arranged cigar-shaped nuclei of keratinocytes and abnormal mitoses. The subepithelial tissue shows haemorrhage and intense inflammation with no evidence of invasion.

The histopathological diagnosis of squamous papilloma with moderate dysplasia was made at 40 × magnification under H & E staining (Figures 3 and 4).
DISCUSSION

Oral squamous papillomas are benign mucosal neoplasm. It is caused by viral infection of the epithelium, especially from human papilloma virus (HPV), most commonly HPV-6 and HPV-11[3]. These subtypes are not associated with malignancy or pre-cancer. Several other subtypes of the human papilloma virus such as HPV-16, HPV-18, HPV-31 and HPV-45 could cause oral papilloma, which might develop into oral cancer[4]. These double-stranded DNA viruses are integrated with the DNA of host leading to papilloma. It is the merit of modern molecular techniques that human papilloma virus (HPV) has been identified in several proliferative epithelial of skin, anogenital and laryngeal mucosa[5].

HPV has also been identified in other oral pathologies such as leukoplakias, vulgar pemphigus and lichen planus. On the other side, HPV infection of the oral cavity could be manifest in other classic clinical ways such as verruca vulgaris (HPV types 2, 4 and 20) and focal epithelial hyperplasia (HPV types 13 and 32)[6].

At present, the gold standard for the assessment of oral potentially malignant lesions is microscopic evaluation of haematoxylin and eosin-stained sections for the presence of architectural and cytological changes, which are generally referred to as epithelial dysplasia. The diagnosis and grading of oral epithelial dysplasia is based on a combination of architectural and cytological changes, but evaluation of these is subjective and has been subject to considerable inter- and intra-observer variations in the grading of lesions. It should be noted at the outset that in the histological evaluation of oral potentially malignant lesions (usually clinical Leukoplakia) only ~ 50% of lesions show evidence of dysplasia, the remainder showing nonspecific hyperplasia and hyperkeratosis[7].

The differential diagnosis of oral squamous papilloma, when solitary, includes verruciform xanthoma, papillary hyperplasia and condyloma acuminatum. Verruciform xanthoma may resemble squamous papilloma, although this lesion has a distinct predilection for the gingiva and the alveolar ridge. A cause-and-effect relationship (e.g., lesion appearing under an ill-fitting denture) should be evident for inflammatory papillary hyperplasia. The condyloma would be larger than the papilloma, would have a broader base, and would appear pink-to-red as a result of less keratinisation. In addition clustered or multiple squamous papillomas would suggest focal epithelial hyperplasia (Heck disease) (Marx and Diane, 2003; Regezi et al., 2003)[2].

Epithelial proliferations of the oral mucosa can be looked at from etiological view points, clinical aspects, biological behaviour, and morphological patterns[5]. The oral squamous papilloma is usually diagnosed in people between 20 and 50 years[8]. The common sites are the palate, uvula, tongue and lips. A single lesion is most common and appears as a soft, pedunculated mass with numerous finger-like projections. The projections may be long and pointy or short and rounded if keratin has built-up round the lesion. Less keratinised lesions are pink or red in colour and resemble a raspberry, while heavily keratinised lesions are white and look like the head of a cauliflower. The oral squamous papilloma differs from other types of papilloma in a few important ways. While most of these growths are noncancerous in nature, a growth within the mouth does have a slightly higher likelihood of developing into a malignant mass. Oral papillomas also occur in greater frequency and are more likely to recur. As a result, they pose a potential respiratory risk if they overpopulate the throat. Papillomas found on the nasal or throat regions, although sharing the same clinical features and histology as oral papillomas, differ in that usually more than one lesion is present, they proliferate continuously over time and often recur. The rare intraoral verruca vulgaris, condyloma acuminatum and focal epithelial hyperplasia resemble papillomas and microscopic examination may be required to distinguish between them. Large papillomas may resemble early verrucous carcinoma[9].

Oral papillomas are painless and may be left untreated unless it is symptomatic. They appear not to change in size, spread to other parts of the oral cavity, or turn...
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into malignant tumours. The keratinolytic agents containing lactic acid or a liquid nitrogen can be used for small benign cases. In the case of large lesion conservative surgical excision may be performed. The recurrence is unlikely.

In conclusion, patients presenting with large exophytic growth of oral cavity, squamous papilloma should be considered as one of the differential diagnosis. The current gold standard is the finding of epithelial dysplasia on a tissue biopsy. Diagnosis of dysplasia is subjective and a considerable experience needs to be accrued before the significance of the variable features become fully apparent. Apart from the diagnosis and grading of dysplasia other significant diagnostic challenges include the evaluation of exophytic verruciform lesions and the diagnosis of benign reactive lesions that may mimic epithelial dysplasia or early invasive carcinoma. Further studies are warranted to elucidate this relationship. Smaller, asymptomatic lesions should be managed conservatively while larger lesion requires surgical resection with/without soft tissue cover.

REFERENCES


