

Case Report**Squamous papillary lesions of oral cavity- Report of two Cases**

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ABSTRACT

Oral squamous papillomas (OSP) are one of the most common lesions of the oral mucosa usually seen in hard and soft palate of adults. The origin and pathogenesis of oral papillary lesions are debatable, however, subtypes of the Human Papilloma Virus (HPV) may be responsible but can remain undetected. OSP are mostly asymptomatic with slow progressive changes in size. It often raises suspicion of malignancy in clinicians and patients and can lead to inappropriate management. This article reports two cases of squamous papillary lesion on tongue.

Key words: HPV, oral papillary lesion, oral squamous papilloma, tongue

Introduction

Oral squamous papilloma is a benign lesion which proliferates on being provoked by human papilloma virus. These lesions are slow growing, painless causing discomfort and irritation during oral physiological processes. Most of these lesions remain unreported as they are painless but can pose a threat to life due to the unexpected biological behavior. The squamous papillomas are of two types i.e. solitary and multiple recurring.

The solitary papillomas are mostly reported in adults. The most common sites are soft palate, tongue, vermillion border of lip. The etiopathogenesis is mostly related to HPV 6 and 11, while the route of the transmission is not precisely known. Syrjanen et al in 1983, proposed the concept of HPV induced carcinogenesis.¹ The types of HPV known to have oncogenic potential include HPV 16, 18, 31, 33, 35, 39, 45, 51, 55, 56, 58, 59, 66, 68.² The DNA sequencing of HPV16 and 18 have shown a potential role in invasive

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squamous cell carcinoma and in dysplastic lesions especially with smoking; nutritional deficiencies, immunocompromised states as the predisposing factors. P53 protein is known to play an important role in DNA repair and cell cycles, cell apoptosis and cell growth. HPV recruits E6AP protein led ubiquitin-ligase which led to P53 degradation which further led to cell division without repair.³ The differential diagnosis of solitary squamous papillomas are papillary hyperplasia, condyloma accuminatum, verruciform xanthoma. Solitary squamous papillomas have been reported mostly in adults but the present article reports similar lesion in tongue of young individuals.

Case reports

Case 1

A 21 year old patient reported to the department of oral diagnosis with a complaint of grass like growth on the posterior aspect of the tongue since 6 months. The medical and family history was noncontributory. On intra oral examination, a whitish exophytic, pedunculated, non-tender growth, in form of 4-5 finger like projections of size 0.6 x 0.6 cm² was present (Figure 1a & 1b). Diagnostic investigations which included routine

hematology and PCR depicted normalcy in parameters. Excision of the lesion was planned under local anesthesia and was sent for histopathological examination. The histology revealed epithelium showing acanthosis and papillary projections with occasional presence of connective tissue cores. There were evident koilocytes in the spinous layer of the epithelium and the underlying connective tissue was fibrous with inflammatory component (Figure 2a & 2b). Based on the clinical examination and histopathology, a diagnosis of oral squamous papilloma was made. On one year follow-up, no recurrence of the lesion was observed.

Case 2

A 13 year old male patient reported to the department of oral diagnosis with small whitish elevations on the midline of the posterior tongue in a focal area of 0.5 x 0.6 cm² (Figure 3a). This was associated with history of fever and loss of appetite since one week. A provisional diagnosis of viral induced papillary hyperplasia was made. A recommended divided dosage of acyclovir 400 mg was prescribed for 7 days. Complete resolution of lesion was observed after one week. The patient is on routine follow up (Figure 3b).

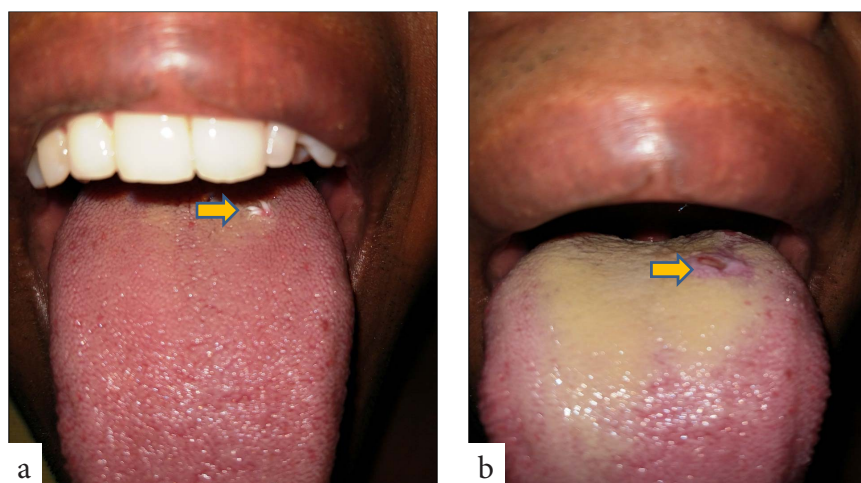


Figure 1: (a) Grass like projection of solitary oral squamous papilloma (b) Post surgical healing

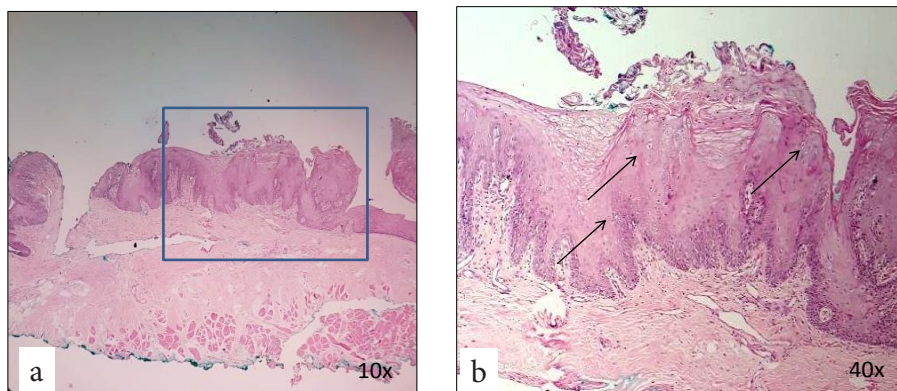


Figure 2: (a) Blunt papillary projections with acanthosis in spinous layers (b) Koilocytes in spinous layers.



Figure 3: (a) Viral fever induced papillary hyperplasia (b) One week follow-up.

Discussion:

Oral squamous papillomas are benign, asymptomatic exophytic masses of the oral cavity often raising concerns due to its clinical appearance. It is usually seen as an exophytic lesion with a white surface and are mostly pedunculated, but sometimes may found to be sessile. Few authors believe that the term (oral squamous papilloma) is generically used for verrucous growths composed of benign epithelium and small

amount of connective tissue.^{1,3} The average size of OSP reported is usually less than 1.0 cm lesions. The commonly involved sites are palate, uvula, tongue and lips. The lesion has no gender predilection and a mean age of 36.4 years is reported with a range of 2-9 years. The duration of the lesion ranges from weeks to 10 years. However, most of the reported lesions have a duration of 2–7 months.⁴

The clinical presentation was quite classic with an exophytic mass which roughly

measured less than 1 cm histopathological features of OSPs include long, thin, finger like projections extending above the mucosa. Each finger like projection is lined by stratified, squamous epithelium with central connective tissue. Spinous cell layer proliferate in a papillary pattern and the koilocytic changes in the histopathology reveal the presence of the viral particles. Several studies show koilocytic changes to be associated with basilar hyperplasia. The differential diagnosis of OSP, in the solitary form include verruciform xanthoma, papillary hyperplasia and condyloma accuminatum.⁶ Recurrent squamous papilloma in children was found in various sites of oral cavity, an etiology of sexual abuse was predicted but couldn't be traced with evidences.⁷ Sexual abuse can be an etiology behind transmission when other modes of transmission are ruled out.⁸

Of the several types of papillomas, the lesions present in mouth and oropharynx are mostly found to be OSP. It was first reported as a gingival "wart" by Tomes in 1848. Das & Das (1993) reported a case series including 2370 biopsy samples from patients up to 20 years of age. It was found that neoplastic lesions accounted for 12% of the samples and of all neoplastic lesions papillomas account for 28%.⁹ Rautava et al discussed the available methods of detection for HPV in the oral mucosa. These include morphological methods like assessment of HPV-induced changes by means of clinical inspection or microscopy of exfoliated cells, they also used biopsy samples for detection of viral nucleic acids detection by antibody response to HPV. However, serological methods do not have an established role in diagnosis of HPV infections in individual patients.¹⁰ The presence of virus is confirmed by PCR and by in situ hybridization using radioisotope labelled specific probes.⁶

The histologic criteria include a pedunculated exophytic growth and a

central fibro-vascular connective tissue core with an inflammatory infiltrate; covered by papillary epithelium (papilla = "nipple-shaped projection"). Atypia has been described in 25% of the lesions.¹² Various treatment modalities for OSP include laser ablation, cryotherapy, cold-steel excision, electrocautery, intralesional injections of interferon, salicylic acid application and conservative surgical excision.¹¹ The rate of recurrence of solitary lesions is low compared to multiple lesions which show a different behavior clinically.¹³ Multiple recurring type of OSP commonly transform into malignancy. Early detection of these lesions both clinically and histopathologically is important as they are associated with oral cancers and dysplasias. The malignant transformation rate ranges from 4.5%-9%.¹³

Conclusion

Squamous papillary lesions are rare in young age group, but must be diagnosed appropriately so that growth of such lesions can be checked at an early stage and it can be well managed.

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