



## CASE REPORT

### SQUAMOUS PAPILLOMA OF THE HARD PALATE: A CASE REPORT

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#### ABSTRACT

Human papilloma virus (HPV) is amongst the most common virus groups affecting the skin and mucosal areas of the body globally today. Occurrence of squamous papilloma may represent a caveat of viral, venereal or pre-cancerous conditions. As an oral lesion, with cauliflower-like clinical appearance and exophytic growth, it raises aesthetic concerns and hence warrants an early diagnosis and prompt treatment. The presented article discusses the benign, painless, slow growing, proliferative squamous papillomatous lesion of the hard palate which was treated by surgical excision and examined histopathologically.

## INTRODUCTION

Squamous papilloma is a benign proliferation of stratified squamous epithelium resulting in an asymptomatic papillary or verruciform exophytic mass. The lesions are traditionally divided into two types: isolated solitary lesion is usually found in the oral cavity of adults and multiple recurring lesions are mostly identified in children's laryngotracheobronchial complex (Jaju, 2010). Incidence reported of squamous papilloma is 4 in every 1000 adults and it makes up approximately 3 to 4% of all the biopsied oral soft tissue lesions (Neville, 2004). The occurrence is influenced by smoking, usage of smoke-less tobacco, co-existing infections, dietary deficiencies and hormonal changes (Carneiro, 2009). It is reported to be diagnosed most often in the third to fifth decade of life. Sites of predilection include the tongue, (where is most commonly found), soft palate (uvula region), lips, but any oral surface might be affected (Neville, 2004). Pathogenesis of oral squamous papillomas is attributed to human papilloma virus (HPV) which comprises of a large family of double stranded DNA viruses with myriad subtypes of papovirus subgroups. This virus is capable of becoming totally integrated with the DNA of the host cell and atleast 24 types are associated with lesions of head and neck. Viral subtypes HPV 6 and 11 have been identified in upto 50% of the oral papillomas.

Even though all HPV lesions are infective, the squamous papillomas appear to have an extremely low virulence potential and infectivity rate. These lesions don't seem to be contagious and are considered to be of low oncogenic potential (Carneiro, 2009 and Kumar, 2005). A latency or incubation period of 3-12 months has been suggested (Neville, 2004).

## Case Report

A 54 year old male patient reported to Clove dental centre, New Delhi, with a painless growth on the anterior palatal surface of the mouth which was interfering with speech and mastication. The lesion was noted initially 10 months ago as a small round pink growth which gradually grew to the present size of 1.5cm x 2cm over the last 8 months (Figure 1). Family history was insignificant. There was no positive dental or medical history. Patient was a smoker since last 15 years and also used chewable forms of tobacco. On examination soft, painless, pink-red colour pedunculated exophytic growth was noted with irregular surface topography. The lesion was well circumscribed and restricted to the hard palate (Figure 2). The patient was informed and educated about the need for surgical excision of the growth. Signed informed consent was obtained for the same. After administration of local anaesthesia with 2% lignocaine hydrochloride and epinephrine concentration of 1:80,000, the exophytic mass was conservatively excised in total including the base of the lesion (Figure 3) and sent for histopathological examination (Figure 4).

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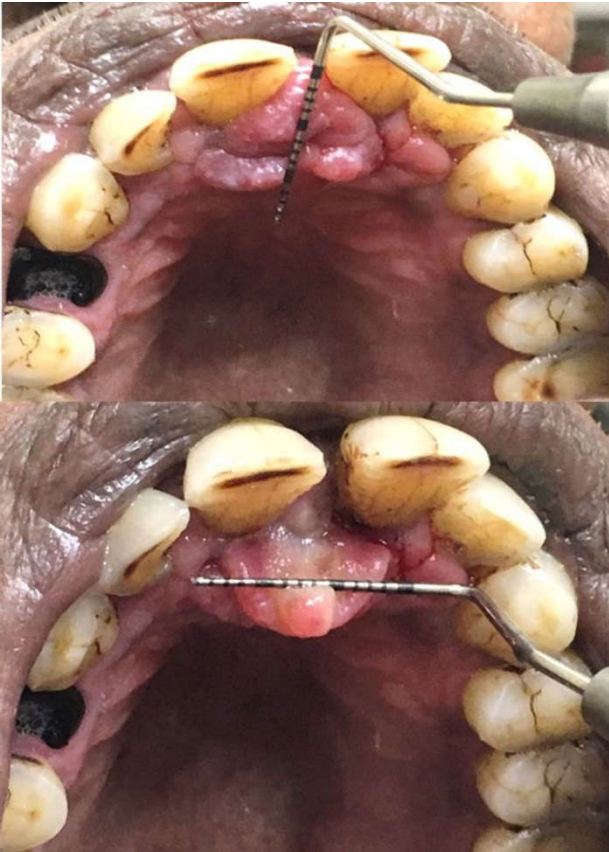


Figure 1. Squamous papilloma lesion in the anterior palatal region

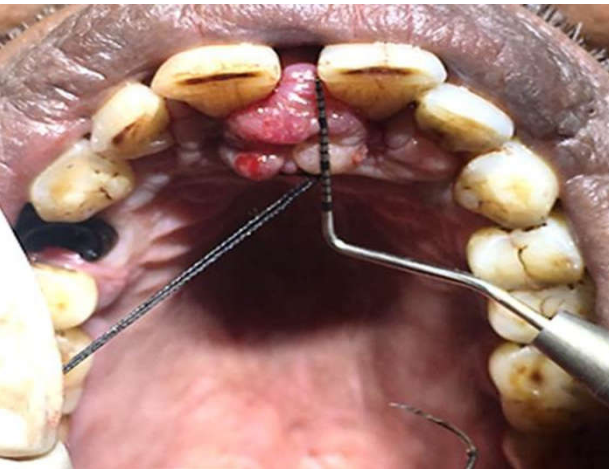


Figure 2. Pedunculated pink-red lesion on the hard palate

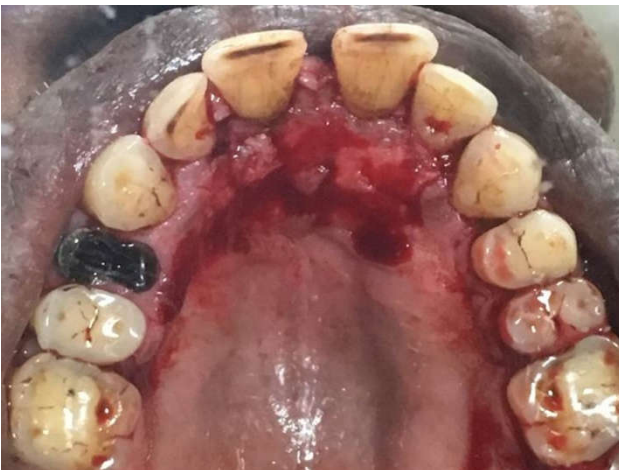


Figure 3. Palatal view after the surgical excision

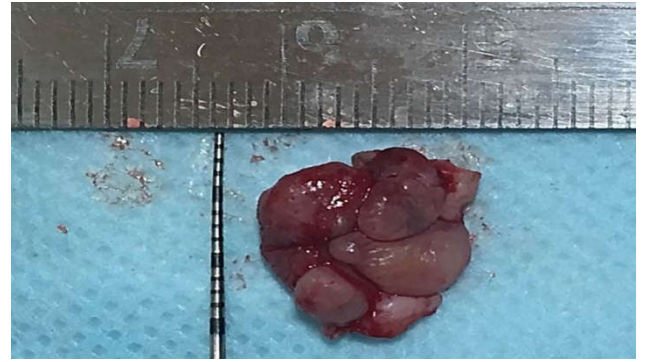


Figure 4. Exophytic mass excised in toto

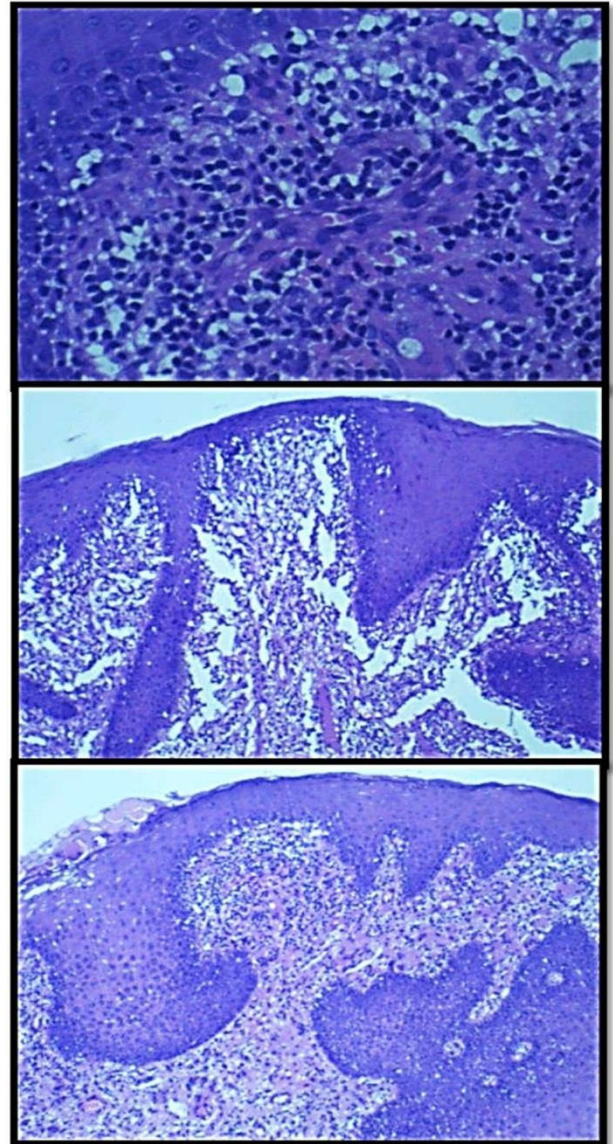


Figure 5. Histopathological section with finger like projections into the connective tissue and inflammatory cells

The histological examination section revealed polypoid mucosa covering the tissue lined by thickened and hyperkeratotic stratified squamous epithelium having smooth, rounded surface profiles with elongated and down projection of squamous epithelial tracts. Upper connective tissue showed dilated capillaries and focal dense acute inflammatory cells. No dysplasia or malignancy reported. Diagnosis was established as an oral squamous papilloma of the hard palate (Figure 5). The patient was kept on a regular follow up and uneventful healing was noted. One month follow up showed satisfactory, stable and completely healed surgical site (Figure 6).





Figure 6. One month follow up

## DISCUSSION

Squamous papilloma lesions are reported to be more prevalent in males (Abbey, 1980), being unique with the localization on the palate, flaccid consistency, cauliflower like surface appearance and pedunculated attachment (Babaji, 2014). Histologically, these lesions present with many long, thin and finger-like projections extending above the mucosal surface. Each finger-like projection is lined by stratified squamous epithelium and connective tissue core as also reported in the present case report. The surface keratin is often quite thickened, usually with parakeratin.<sup>7</sup>Koliocytes are HPV altered cells with pyknotic nuclei, often surrounded by edematous or optically clear zone, the so called 'koliocytic' cell. HPV has shown to immortalize epithelial cells and has a synergistic effect with chemicals, like tobacco. This combined mutagenic effect plays a key role in HPV-induced carcinogenesis (Ottoman, 2015 and Dhanpal, 2015). Nevertheless, in the presented report no such evidence of dysplasia or malignancy was evident. HPV can be identified by- in situ hybridization, immune-chemical analysis and PCR technique, but it is not visible with routine histo-pathological staining. Oral HPV lesions can result in different clinical appearances ranging from benign, hyperplastic, papillomatous or verrucous lesions to carcinomatous changes.<sup>10</sup>The differential diagnosis clinically of solitary oral squamous papilloma are verruca vulgaris, verruciform xanthoma, focal epithelial hyperplasia, condyloma acuminatum, acanthosis nigrans, tuberous sclerosis and focal dermal hypoplasia (Goltz-Gorlin) syndrome (Ottoman, 2015). Moreover, an innocuous squamous papilloma may herald the serious pre-cancer proliferative verruciform leukoplakia (Scully, 1999).

Surgical excision is the treatment of choice as was done in this case. Other treatment modalities like electro-surgical excision, cryosurgery, intra-lesional injections of interferon also have been reported in literature (Babaji, 2014). Laser ablation is also effective but it does not offer the opportunity for microscopic examination to confirm the diagnosis (Ottoman, 2015). Prognosis after excision is good, as rare malignant transformation or dissemination in other parts of the oral cavity have been reported. Fixation of the base or induration of the deeper tissues should always be viewed with suspicion. Recurrence is uncommon, except seen in patients infected with human immune-deficiency virus (HIV).

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