Large squamous papilloma in unusual site: A case report and review of the literature

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ABSTRACT

Squamous papilloma is a benign proliferation of the stratified squamous epithelium, resulting in a papillary mass, which appears as sessile or pedunculated growth with cauliflower-like projection. The most common sites are palate, uvula followed by tongue and lip. Most of the time it usually presents as a solitary, exophytic growth with an average size of less than 1 cm. Here, we report the case of a 28-years-old male patient presented with a solitary sessile, white growth with multiple papillary projections on the right buccal mucosa measuring approximately 4 x 3 cm. An incisional biopsy followed by surgical excision of the lesion was performed confirming the diagnosis of squamous papilloma. This paper highlights a case of unusually large-sized papilloma in an uncommon site.

Keywords: Buccal mucosa, Human papillomavirus, Oral Squamous Papilloma, Papillary projection.

Oral squamous papilloma (OSP) is the fourth most common mucosal lesion, comprising of 3–4% of all the biopsied lesion [1]. These are benign exophytic masses of the oral cavity which are pedunculated or sessile, white or pink colored finger-like projections that arise from the mucosal surface [2]. The common sites are the palate, uvula, tongue, and lips [3]. As an oral lesion, it raises concern because of its clinical appearance, mimicking exophytic carcinoma, verrucous carcinoma or condyloma acuminatum [3,4]. Surgical excision or laser ablation is the treatment of choice [1,2,5].

CASE REPORT

A 28-years-old male patient reported to the Department of Oral Medicine and Radiology with the complaint of a painless growth on the inner part of the right side of cheek since 6 months. Initially, the growth started as a small nodule which gradually increased to the present size within one month after which there was no change in the size of the lesion. There was slight interference while chewing. There was no history of trauma, difficulty in speech and swallowing. There was no history of paresthesia or anesthesia. No history of similar growth in other parts of the body. The patient was neither alcoholic nor a tobacco chewer.

On examination, a solitary, ovoid shape sessile growth, white in color with multiple finger-like projections was seen on the right buccal mucosa approximately 4.5X3 cm, extending antero-posteriorly from mesial of 44 to distal of 47 and superior-inferiorly from line of occlusion to 0.5 cm above the mandibular buccal vestibule (Fig. 1). The surrounding area appeared normal. It was non-tender and firm in consistency. Deep caries with relation to 47 was present. Regional lymph nodes were not involved. The lesion was provisionally diagnosed as squamous papilloma. Differential diagnoses of Verrucous carcinoma and Verruca vulgaris were considered.

A routine hematological investigation including tri-dot was done and all the reports were within the normal range. Later, the patient was subjected to wide surgical excision of the growth along with normal surrounding tissue and split thickness graft was done. Histopathologically, H&E stained section revealed, proliferative hyperkeratinized stratified squamous epithelium of
finger-like projections with a central core of connective tissue. Thick surface keratin along with basilar hyperplasia and spongiosis and scattered moderate amount of chronic inflammatory infiltrate and minor salivary gland within the stroma were suggestive of squamous papilloma (Fig. 2). The patient reported for the follow-up after a week and was asymptomatic (Fig. 3).

**DISCUSSION**

Oral squamous papillomas (OSP) are benign neoplasm [2,6]. They are seen in approximately 4 out of 1000 persons and accounts for 3-4% of biopsy specimens of oral cavity [1]. Whites are more affected than the black population [7]. Major et al., 2005 and others considered its pathogenesis as being from the human papillomavirus (HPV) [4] most commonly HPV-6 and HPV-11. 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 that might develop into oral cancer. These double-stranded DNA viruses are integrated with the DNA of host leading to papilloma (Table 1) [2,3,4]. But recent literature states HPV may be merely an incidental finding unrelated to the development of a squamous papilloma (Marx and Diane, 2003) [4]. Not all squamous papillomas are virally induced, some may be the result of mechanical irritation as in the present case and the lesion was in the line of occlusion and existing caries tooth and others (although possibly viral related) are genetically determined such as those occurring as a component of Cowden’s syndrome [6]. The route of transmission of the virus is unknown for oral lesions, although direct contact in an area of local trauma would be favored [8].

The oral squamous papilloma is usually diagnosed in people between 30-50 years with equal sex predilection [2,7]. It could be found on the vermilion portion of the lips and any intraoral mucosal site, with a predilection for the hard and soft palate and the uvula. The latter three sites account for approximately one-third of all lesions. In our case, the lesion was seen on buccal mucosa. The lesions generally measure less than 1 cm in range [4]. 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 around the lesion. Less keratinized lesions are pink or red in colour and resemble a raspberry, while heavily keratinized

<table>
<thead>
<tr>
<th>Lesions</th>
<th>Papillomavirus involved</th>
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<tbody>
<tr>
<td>Oral papilloma/wart</td>
<td>2, 6, 11, 57</td>
</tr>
<tr>
<td>Focal epithelial hyperplasia</td>
<td>13, 32</td>
</tr>
<tr>
<td>Dysplastic wart (HIV)</td>
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<td>Verruca vulgaris, skin</td>
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<tr>
<td>Laryngeal papilloma</td>
<td>11</td>
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<tr>
<td>Conjunctival papilloma</td>
<td>11</td>
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</tbody>
</table>

**Table 1: Lesions caused by Human Papilloma Virus**

![Figure 2: Histopathological examination showing (a) proliferative hyperkeratinized stratified squamous epithelium showing finger like projections with central core of connective tissue (H & E stained original magnification 10X); (b) scattered moderate amount of chronic inflammatory infiltrate and minor salivary gland within the stroma (H & E stained section, original magnification 40X).](image)

![Figure 3: Postoperative follow-up of the patient after 1 week.](image)
lesions are white and look like the head of a cauliflower [2]. The lesions are generally asymptomatic as was in the present case [4].

Squamous papillomas are traditionally divided into two types: isolated-solitary and multiple-recurring. The former is usually found in an adult’s oral cavity, while the latter is mostly found in a child’s laryngo-tracheobronchial complex. The isolated-solitary lesions are exophytic, pedunculated growths that resemble a cauliflower in appearance [4].

The differential diagnosis of oral squamous papilloma, includes verruciform xanthoma, papillary hyperplasia, and condyloma acuminatum, evusuniuslateris (ichthyosisystrix), acanthosis nigricans, tuberous sclerosis and focal dermal hypoplasia (Goltz-Gorlin) syndrome [8]. HPV 6 and 11 are considered less virulent and the rate of malignant transformation is less as supported by the study done by Thalassa et al for the p53 gene by immunohistochemistry [9].

The keratinolytic agents containing lactic acid or liquid nitrogen can be used for small benign cases. In the case of a large lesion, conservative surgical excision or ablation with the use of a laser can be done [3,10]. Recurrence is uncommon, except for lesions in patients infected with HIV [8].

CONCLUSION

In patients presenting with large exophytic growth of oral cavity, squamous papilloma should be considered as one of the differential diagnosis. The conservative therapy to be considered as the rate of malignant transformation is less.

REFERENCES


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