



Unusual Oral Squamous Papilloma Imitating Exophytic Carcinoma: A Case Presentation

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Abstract: Background: Oral squamous papilloma (OSP) specifies a generally benign slowly growing usually painless epithelial pathologic overgrowth. Although the exact etiology of OSP is debatable, human papilloma virus (HPV) is suggested to be an etiologic factor. Human papilloma viruses (HPVs) are associated with various benign and malignant lesions of mucosa and skin and may present as a proliferation of the stratified squamous epithelium which classically results in papillary exophytic growths. Current epidemiologic studies show that HPVs can be an essential carcinogen for the development of oral and oropharyngeal cancer. OSP is visible to the naked eye, and approached by conventional visual and tactile examination (CVTE). Currently the preferred treatment modality for the management of such persistent growth is surgical excision, which also secures a definitive diagnosis through histopathological evaluation. Objective: This article aims to present a case of a labial sessile overgrowth that mimics exophytic carcinoma and to describe its management. Based on histopathological analysis the diagnosis was confirmed as OSP. Method: We describe the management of a lower labial lesion that doubts -at first glance- presence of malignancy. Result: After surgical excision of the lesion, patient restored satisfactorily both function and esthetic of lower lip, with no recurrence. Conclusion: Authors emphasize that correct clinical judgement in addition to incisional biopsy are all of paramount importance in initial management of oral suspicious lesions.

Keywords: Human Papilloma Virus (HPV), Squamous Papilloma, Carcinoma, Malignancy

1. Introduction

Oral squamous papilloma (OSP) is a benign proliferation of squamous epithelium. Clinically it presents as rough white to pink - depending on the degree of associated keratinization and vascularization - exophytic overgrowth with granular or finger-like surface projections imparting a cauliflower like or verrucous appearance, sometimes with clinical appearance that imitates carcinoma. The base of which may be sessile or pedunculated [1]. It is usually a painless slowly progressive lesion that can affect any oral region, being more common on the tongue, lip, uvula and soft palate, frequently affects children but any age group may be involved [2]. The diagnosis is based on both clinical and histopathological evaluations. The treatment of choice for OSP is surgical removal [3].

Currently, 227 Human Papilloma Viruses (HPVs) types are known to persist in the human population. They are classified into two categories: low-risk Human papilloma viruses (LR-HPVs) strongly associated with wart-like benign lesions in the skin and oral mucosa and high-risk Human papilloma viruses (HR-HPVs) shown to be the causative agents of more than 750,000 cases of human malignancies annually. Fortunately, only a small number are high-risk strains [4-7]. The HPVs induce proliferative changes in oral epithelial cells that result in both benign and malignant tumors and can only infect basal or parabasal cells of the epithelium. Infection may be initiated by micro abrasions on the surface, which allows better access for this virus into the basal cells, as normal intact skin or mucosa are resistant to viral entry [8].

2. Case Presentation

A 40-year-old previously healthy male Egyptian patient was referred to the Oral and Maxillofacial Surgery unit at Bneid alQar Specialty Dental Center, Kuwait, with a chief complaint of a slowly growing proliferating sessile mass in the lower lip for over a year associated with intermittent pain and itchiness in the area, (Figure 1).



Figure 1. Pre-operative photograph of the lesion, showing crusted masses on the lower lip.

Clinical examination revealed a tender firm nodular mass, with crusted surface mainly located at vermilion zone of the lower lip. There was no fever nor regional lymphadenopathy. Medical history and physical examination did not reveal any significant findings. The lesion involved more than half of lower lip vermilion zone. An incisional biopsy was done under local anesthesia, and the specimen sent for histopathological examination. The histopathology report revealed presence of numerous classic finger-like papillary projections lined by keratinized stratified squamous epithelium with fibrovascular connective tissue as a core, negative for any epithelial dysplasia. Malignancy was ruled out. Surgical planning included excision of the lesion and reconstruction of the resulted defect.

Due to the size and the expected extension of the lesion to underlying tissue, together the expected need of deformity reconstruction, the lesion was fully excised under general anesthesia, at its base with 1mm healthy margin, using scalpel. The specimen placed in formalin and sent for histopathological examination. The report confirmed the initial diagnosis of squamous papilloma, with classic proliferation of stratified keratinized squamous epithelium arranged in finger-like projections. Reconstruction of the defect with a full function and aesthetic result in long-term monitoring was a challenge. A musculomucosal local flap would be more suitable to restore the color and texture of oral mucosa, so labial mucosa was undermined to the vestibular level and a musculomucosal advancement flap was elevated and elastically stretched without any tension to the vermilion

zone, to enable the patient eating and speaking without restriction. Post-operative result, (Figure 2) demonstrated wound closure, minimal scar tissue formation with good functional and cosmetic outcome. No recurrence was noted upon follow up.



Figure 2. Post-operative photograph showing complete healing and wound closure.

3. Discussion

OSPs – among other lesions – are caused by human papillomaviruses (HPVs). The presence of human HPVs in the oral cavity of healthy individuals has been well documented. The manifestations of HPVs infections can be multiple, varying from asymptomatic infections to benign warty or potentially malignant lesions. HPVs genotypes are categorized into five genera, of which Human papillomaviruses in the alpha genus are of main clinical importance as this genus contains most of the mucosal HPVs, which include both low-risk and high-risk HPVs. The low-risk mucosal HPVs, such as HPV-6 and HPV-11, cause benign papilloma, condyloma, verruca vulgaris (common wart), and focal epithelium hyperplasia, whereas the high-risk mucosal HPVs, such as HPV-16 and HPV-18, cause squamous intraepithelial lesions that can progress to squamous cell carcinoma in the head and neck region [9]. Presently, HPV is present in approximately 35% of head and neck squamous cell carcinoma (HNSCC) and most HPV-positive cases emerge in lingual and palatine tonsils [10].

The most common differential diagnosis between squamous papilloma and other oral papillary lesions (condyloma, verruca vulgaris, and focal epithelium hyperplasia) can be clinically difficult. Squamous papilloma is familiar in appearance to verruca vulgaris which is papillary exophytic white overgrowth, commonly found on the skin and occasionally on keratinized regions of the oral mucosa such as the lip vermilion zone, gingiva, and hard palate. Squamous papillomas in the oral cavity do not usually become malignant when left untreated since the most common types of HPV in the oral cavity are HPV-6 and 11 [11]. OSP should be differentiated from condyloma acuminatum occurring in the oral cavity. They usually present

as multiple clusters with a cauliflower-like appearance and are usually larger than oral squamous papillomas [12]. Another differential diagnosis is focal epithelial hyperplasia, commonly known as Hack's disease. Hack's disease is a rare disease and usually associated with young individuals, lesions are usually asymptomatic and may resemble normal mucosal color with a cobblestone appearance [13]. Focal epithelial hyperplasia usually heals spontaneously and surgical excision is usually only needed when the lesion is causing a functional or aesthetic challenge [4].

Diagnosis of oral papilloma is based on clinic and histopathologic characteristics of the lesion. The treatment of choice is complete surgical excision including the base of the lesion and a small marginal area to prevent recurrence. Surgical excision may be performed using cold blade, laser ablation, electrocautery or cryotherapy. After removal, recurrence of oral squamous papillomas is not common [4].

In the present case, lesion was located on lower lip mimicking squamous cell carcinoma. However, incisional biopsy, showed classic papillomatous-like appearance with benign squamous lined mucosa, extensive ulceration, and crust formation.

Reconstruction of the lip can pose a surgical challenge, and had to come across two essential elements of having acceptable esthetic quality for the lower lip to go unnoticed on the face as well as recovery of labial function. Oral competence is the prime function, enabling the patient to feed normally, without dribbling saliva or food, and to express him or herself easily [14].

Re-orientation of the orbicularis oris muscle with buccal advancement was necessary in our case to restore the lower vermilion zone.

4. Conclusion

As a conclusion, this presentation focuses on a relatively rare exophytic lesion that may undergo a malignant transformation. Early meticulous examination, proper differential diagnosis, precise treatment and regular follow ups are important and highly advised to avoid future complications. The most commonly recommended adequate treatment of oral HPV-related lesions is surgical excision with a cold scalpel, to get lesion-free borders. It looks worthy to emphasize that clinician cannot rely only on the clinical manifestation to reach a definitive diagnosis of lesions, but further investigations are very important.

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