

# **Fibro-epithelial Hyperplasia Mimicking Oral Squamous Papilloma in an 8-year-old child - A Rare Case Report**

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### **ABSTRACT:**

*Oral mucosa is affected by various papillary lesions. Any oral lesion raises concern because of its clinical appearance. This case report describes the management of an 8-year-old girl with an exophytic papillary growth on the palatal aspect of 64. The lesion clinically resembled an oral squamous papilloma but did not show any signs of a virally infected lesion histopathologic ally or on immunohistochemistry analysis which was unique with this case.*

*Clinical Relevance: The lesion clinically resembled an oral squamous papilloma but ON further investigation a final diagnosis of fibro epithelial hyperplasia was made. Hence to come*

*to a definitive diagnosis we cannot rely only on the clinical manifestation of the lesion and further investigations are very important.*

**Key words:** *Immunohistochemistry, Hyperplasia, Carcinoma, Squamous cell*

## INTRODUCTION

Exophytic lesions of the oral cavity might be quite challenging to diagnose. Oral exophytic lesions are pathologic growths that project above the normal contours of the oral mucosa. (1) The oral cavity is constantly exposed to various external and internal stimuli, resulting in several diseases, from developmental to reactive and neoplastic in origin, either generalised or localised. Exophytic lesions can be classified according to the surface texture (smooth and rough), the type of base (pedunculated, sessile, nodular, and dome shape), and consistency (soft, cheesy, rubbery, firm, and bony hard). The oral mucosal lesions prevalence is controversial in children due to the different diagnostic criteria, limited oral lesions included in surveys and lack of standardization. (2, 3) In a study by Majorana A et al., (4) most frequent lesions in children recorded were the oral candidiasis (28.4%), geographic tongue and other tongue lesions (18.5%), traumatic lesions (17.8%), recurrent aphthous ulcerations (14.8%), herpes simplex virus type 1 infections (9.3%), and erythema multiforme (0.9%), and also when compared to healthy children, children suffering from chronic diseases had a higher frequency of oral lesions. The present case report describes a fibro epithelial hyperplasia mimicking a lesion of viral origin in an 8-year-old child.

## CASE REPORT

An 8-year-old female reported to the Department of Paedodontics and Preventive Dentistry with the chief complaint of decayed teeth in the upper left back tooth region. No history of pain was reported with the teeth in question. On intraoral examination the patient had a mixed dentition with presence of permanent incisors and first permanent molars in both the maxillary and mandibular arch with deciduous canines and primary molars. Class II dentinal caries were present with respect to tooth number 64 and 65. The patient had an increased overjet and gave history of mouth breathing habit since childhood which was seen more frequently at night while sleeping as observed by the parents. On the palatal gingiva of 64 an exophytic growth was noticed (Figure 1a). The growth was a pedunculated mass, with small finger like projections, coral pink in colour extending 7mmx5mm mesiodistally and cervicopalatally involving the marginal and attached gingiva. The lesion on palpation was non-tender and soft in consistency and no bleeding was noticed while probing. No such similar lesion or growth was observed elsewhere on the other parts of the body on examination. The patient or parents had not noticed this growth in the oral cavity earlier. There was no history of pain, parasthesia or numbness associated with the growth. Family history was not significant and there was no relevant medical history noted. No history of viral fever or illness in the past year as reported by the parents. An intraoral periapical radiograph was taken to rule out any bony involvement and to know the extent of carious involvement with respect to 64 and 65 (Figure 1b). The radiograph revealed radiolucency

involving the enamel and dentin without involvement of pulp and absence of furcal radiolucency suggestive of class II dentinal caries of the associated teeth and no bony involvement of the lesion was confirmed. On the basis of clinical findings a provisional diagnosis of squamous papilloma and differential diagnosis of verruca vulgaris of the oral cavity and chronic hyperplastic gingival tissue were made.

The caries was excavated, and the teeth were restored with resin modified glass ionomer cement using a T- band. The lesion was surgically excised completely from the base using a no. 15 surgical blade under local anaesthesia. (Figure 1c) Bleeding was controlled using pressure pack and instructions were given to the patient to maintain good oral hygiene and chlorhexidine mouthwash (0.2%) was prescribed for 1 week. The excised lesion was sent for histopathological examination. Histopathological view of the specimen stained by Hematoxylin and Eosin (Figure 2a) showed hyperplastic parakeratinized stratified squamous epithelium overlying a fibrous connective tissue stroma that exhibited dens bundles of collagen interspersed with blood vessels and mild chronic inflammatory cell infiltrate (predominantly lymphocytes). The histopathological findings confirmed a final diagnosis of Fibro- epithelial hyperplasia. To rule out the presence of a virus induced lesion, P16 immunohistochemistry test was carried out, and the results were negative (Figure 2b). The patient was recalled after 1 week for review. The patient was asymptomatic, and the healing was satisfactory with no post-operative complications. The patient was then referred to the department of orthodontics for correction of the existing malocclusion and oral habit.

## DISCUSSION

Fibrous hyperplasia is a benign soft tissue which occurs as a response to a local irritant like calculus, a sharp tooth, a broken filling, excessive plaque and any other irritating factors. Fibrous hyperplasia clinically presents as a well-demarcated exophytic mass and the colour ranges from normal to white or reddish depending upon whether the surface is ulcerated, keratotic or both or neither. It can be soft or firm in palpation. (5) In the present case the histopathological view showed the presence of hyperplastic parakeratinized stratified squamous epithelium and chronic inflammatory cells which led to a diagnosis of Fibro- epithelial hyperplasia. There are various papillary lesions that affect the oral mucosa. Papilloma commonly found in children are benign neoplasm of the stratified squamous epithelium. (6, 7) Squamous papillomas usually occur between 30 and 50 years but can also occur before the age of 10 years and the oral squamous papilloma account for 8% of all oral tumors in children. (7) Papillomas are generally asymptomatic and measure 1 cm in range and appear as pink to white exophytic granular or cauliflower-like appearance. (8) Histologically, these lesions present as many long, thin and finger-like projections extending above the mucosal surface. Koilocytes- HPV altered cells may be observed. (9) Verruca vulgaris which is commonly known as wart was another differential diagnosis in our case. It is estimated to occur in 10% of children and young adults, most commonly seen in the age group of 12-16 years. (10) This lesion is also associated with HPV mostly occurring on the skin (finger). These lesions are elevated, firm nodules with characteristic

papillomatous surface projections. Microscopically these lesions are seen as intra nuclear viral inclusions and specially altered clear cells with small, pyknotic nuclei (koilocytes). (11) Oral lesions are rare and usually are thought to be a cause of auto inoculation from lesions on the fingers and hands. Joshi M et al., (12) in 2013 reported two cases of verruca vulgaris on palatal gingiva but without lesions elsewhere in the body.

The uniqueness in our case was that the lesion clinically had a very close resemblance to oral squamous papilloma and verruca vulgaris but on histopathological and immunohistochemistry (p16) analysis it did not show any signs of viral infectivity or did not resemble any of these lesions microscopically. To the best of our knowledge this is the first case of fibroepithelial hyperplasia on the palatal gingiva of an 8-year-old girl child with resemblance to lesion of viral origin clinically.

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**FIGURES**



FIGURE 1A) Exophytic growth on palatal gingiva of 64.1B) Intraoral periapical radiograph of 64. 1C) surgically excised exophytic growth.

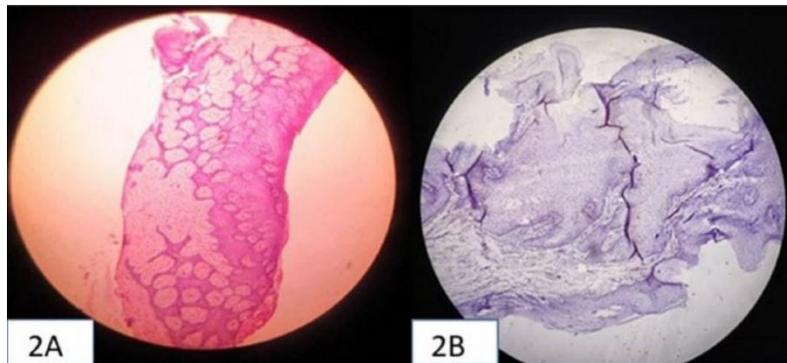


FIGURE 2A) Histopathological view. 2B) P16 immunohistochemistry test