Squamous cell Papilloma on the lip: A rare case report

ABSTRACT:
Squamous cell papilloma, is a benign, soft, cauliflower-like growth caused due to the rapid proliferation of the stratified squamous epithelium in the oral cavity. It's etiology is not exactly known but it is generally associated with infection Human Papilloma Virus (HPV). It predominantly occurs in middle age and in can also be seen in children accounting to 8% of all oral tumours in children This case report sheds light on one such case of a 14 -year female patient.

Keywords:begnintumour , Squamous papilloma, oral papilloma ,Human papilloma virus

INTRODUCTION:

Squamous papilloma is a benign epithelial lesion characterized by hyperplastic proliferation of squamous epithelium, often induced by human papillomavirus (HPV) infection. It commonly manifests as exophytic, cauliflower-like growths in various anatomical locations, including the oral cavity, upper respiratory tract, anogenital region, and skin with predilection for tongue and soft palate. While typically asymptomatic, squamous papillomas can present diagnostic challenges due to their diverse clinical presentations and histopathological features. Understanding the

epidemiology, etiology, clinical manifestations, and diagnostic approaches to squamous papilloma is crucial for accurate diagnosis and appropriate management. This case report aims to provide an overview of squamous papilloma, highlighting its clinical significance, diagnostic considerations, and management strategies.

CASE-PRESENTATION:

A 14-year-old female patient presented to our department (Sri Siddhartha Dental college , Tumkur ;Department of Pediatric and Preventive Dentistry) in August 2023, with a chief complaint of a small, white, soft growth on the inner corner of her left upper lip, which she had noticed for the past year. The growth had gradually increased in size to its current dimensions of 1.5 × 1.3 cm. The patient reported that the growth was painless and denied any associated symptoms such as rapid growth, paresthesia, or numbness.

Upon inspection, a single, cauliflower-like growth was observed near the left upper lip commissure. The lesion appeared white, soft in consistency, and non-tender upon palpation. There were no signs of inflammation or ulceration. The patient's hard tissue examination revealed normal permanent dentition with no evidence of dental caries or gingival abnormalities.

During history-taking, the patient denied any harmful habits such as smoking, tobacco chewing, alcohol consumption, or intravenous drug abuse. She also reported no relevant family medical history. Additionally, there were no other similar growths elsewhere on her body.

Based on clinical findings, a provisional diagnosis of papilloma was made. The decision was made to perform an excision biopsy of the growth under local anesthesia to confirm the diagnosis and assess for any underlying pathology.

The excision biopsy was performed successfully, and the specimen was sent for histopathological examination. Postoperative care was uneventful, and the patient was discharged with instructions for follow-up.

Histopathological examination of the excised tissue confirmed the diagnosis of squamous papilloma, ruling out any malignant features. The patient remained asymptomatic during follow-up visits, with no signs of recurrence noted.

HISTOPATHOLOGICAL REPORT:

The histopathological report revealed that numerous epithelial proliferations were seen in the form of finger like projections that were lined by stratified squamous Para keratinized hyperplastic epithelium with basal cell hyperplasia and acanthosis, which also showed hyperkeratosis. The epithelial proliferation contains the central connective tissue core showing blood vessels and few collagen fibres align with few fibroblasts. Few lymphocytes are also seen in the connective tissue stroma. Confirming the diagnosis as squamous papilloma.

Fig 1: Squamous papilloma present on the left upper lip .

Fig 2 : Intra-oral image of the lesion .

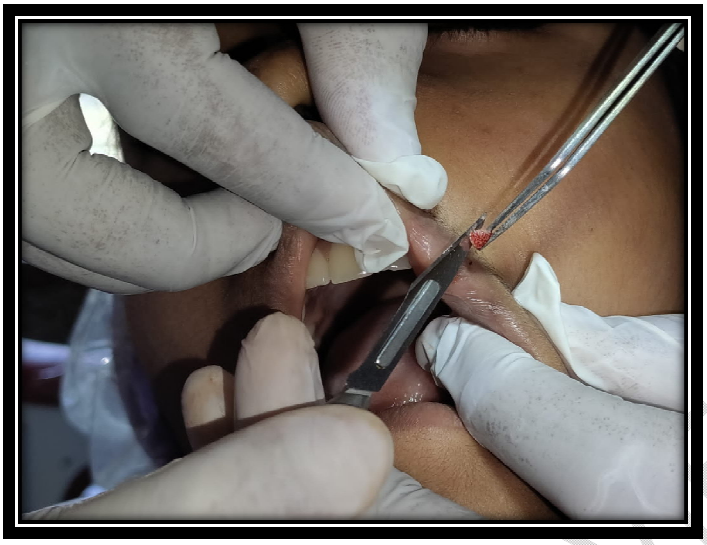

Fig3: Surgical excision done

DISCUSSION:

Squamous papilloma is an exophytic mass of the oral cavity, mostly benign and asymptomatic caused by proliferation of stratified squamous epithelium. Its pathogenesis is related to human papilloma virus (HPV) types 6 ,11(low-risk)13,23,16,18,31,33(high-risk) and trauma. HPV is said to have the capability to invade the nuclei of the cells in the spinous layer thereby inducing a series of proliferative alterations resulting in growth. The occurrence of these lesions is influenced by smoking, co-existent infections, dietary deficiencies, and hormonal changes, in infants the maternal neonatal HPV transmission implicated whereas in older children, it can be attributed to autoinoculation or hetero inoculation .[1]

Papilloma's are found in various locations in humans like oral mucous membrane (predominantly in hard and soft palate , uvula)brain, urinary tract

, larynx,skin,breastetc.Papillomas can be classified as Isolated/solitary or recurrent multiple.[2]

The differential diagnosis of oral squamous papilloma, when solitary, includes verruciform xanthoma, papillary hyperplasia, and condyloma acuminatum,Verruca Vulgaris , Acrochordon , Cowden syndrome , Gorlin-Goltz syndrome etc.

The various tests for Squamous Cell Papilloma in Children are :

A) Histopathological Examination: Carneiro et al strict criteria includes finger – like projections, normal maturation pattern, presence of hyper parakeratosis in epithelium .[1]

B) HPV Testing: Testing for HPV DNA within the lesion can provide valuable information regarding the viral subtype and guide treatment decisions. PCR or in situ hybridization techniques may be employed for HPV testing.

C)Follow-up: Regular follow-up examinations are essential to monitor for recurrence or any signs of malignant transformation. Children with squamous papillomas should undergo periodic clinical evaluations to ensure early detection and prompt management of any recurrent or new lesions.

Treatment of Squamous Cell Papilloma in Children can be done by

a) Surgical Removal: Surgical excision is the primary treatment for squamous papillomas in children. This involves removing the lesion along with a margin of healthy tissue to ensure complete removal. The procedure can be

performed under local or general anesthesia, depending on the child's age and the size and location of the lesion

b) Laser Ablation: Laser-assisted excision using CO2 or potassium titanyl phosphate (KTP) lasers may be considered, especially for lesions in anatomically sensitive areas or when precise tissue removal is necessary. Laser ablation offers benefits such as bloodless surgery, minimal scarring, and faster healing

c) Cryotherapy: Cryosurgery involves freezing the lesion using liquid nitrogen or a similar cryogenic agent. Cryotherapy can be effective for small, superficial lesions and is relatively less invasive compared to surgical excision.

d)Electrocautery: Electrocautery uses an electric current to remove the lesion by burning or cutting it. While effective, caution must be exercised to prevent damage to surrounding healthy tissue.

e) Intralesional Interferon Injections: In some cases, especially if there is a high risk of recurrence or if the lesion is associated with HPV infection, intralesional injections of interferon may be considered. Interferon helps boost the immune response and may aid in controlling viral replication.

Other methods are Radiofrequency Ablation (RFA) , Photodynamic therapy (PDT).

According to center for disease control and prevention, the maximum effectiveness of vaccine against HPV is at 9-12 years of age . Commonly used vaccines are Ceravix (HPV 16-18) and Gardasil (HPV 6,11,16,18,19). For the medical management of Papilloma Methotrexate(intralesional) 2mg/ml ,10-25%podophyllin resin (weekly once for 4 weeks) , 5% imiquimod cream (3 times /week for 16 weeks) , Cidofovir (sublesional) 12.5mg ,etc can be prescribed.

It can be classified as solitary or isolated and multiple or recurrent. Recurrence generally occurs before 15 months follow-up .[1,2,3]

CONCLUSION:

In conclusion, squamous papilloma, a benign soft tissue growth linked to HPV 6 and 11, is often detected incidentally during clinical examinations. These growths, appearing as sessile, cauliflower-like lesions, notably on the hard palate, necessitate timely treatment. Proper diagnosis through detailed history-taking and clinical examination is imperative, alongside patient education regarding the necessity of lesion excision. Recurrence rates are low, barring cases of immunocompromised patients, such as those with AIDS. Vigilant management and follow-up are advised to mitigate potential complications associated with these lesions.

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