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Unusual occurrence of oral wart in childhood: A case report

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Abstract

Oral warts are benign proliferative lesions of the oral epithelium that are caused by human papillomavirus (HPV). Very few occurrences of these lesions have been documented in pediatric populations; they are more frequently observed in adults. The diagnosis and clinical management of such lesions are difficult because of a lack of literature and lack of health practitioners' awareness of these lesions. This case report details a 7-year-old child who developed an oral wart on the lower lip that was asymptomatic and lasted for several months. A soft, well-defined exophytic growth with a papillomatous surface was seen during clinical examination, suggesting a viral origin. Squamous papilloma was discovered via histopathological analysis. Under local anesthetic, the lesion was surgically removed, and recovery time after the treatment was uneventful.

A six-month follow-up revealed that the lesion had not returned. This illustration emphasizes how crucial it is to differentiate oral warts from other oral mucosal growths, especially in children, in order to guarantee prompt diagnosis and suitable treatment. It also draws attention to possible routes of transmission, difficulties with diagnosis, and the necessity for clinicians to be aware of HPV-related lesions in young patients.

Keywords: Oral wart, pediatric patient, surgical excision, benign lesion

Introduction

Oral warts are nothing but benign epithelial growths which are caused by Human papilloma virus (HPV), predominantly HPV-6 and HPV-11^[1]. These lesions are more commonly seen in adults, while their occurrence in children is quite rare^[1]. HPV is a DNA virus that affects the basal layer of the epithelium and manifesting as papillary or verrucous lesions by inducing hyperplastic growth. Their transmission may occur through vertical transmission during childbirth, horizontal transmission through direct touch or through autoinoculation from other body areas like the fingers or perioral area^[2].

Clinically, oral warts appear as exophytic, painless growths with a distinctive verrucous or cauliflower-like appearance. They usually affect the vermilion border of lips, palate, buccal mucosa, or tongue and can be sessile or pedunculated^[3]. Even though oral warts typically don't cause any symptoms, parents and other caregivers may be concerned about their look and growth potential.

Diagnosing oral warts in young patients can be difficult as they have a broad differential diagnosis that includes various benign lesions like fibromas, verruca vulgaris, and verruciform xanthomas, as well as occasionally more concerning pathologies like pyogenic granulomas or even oral cancers. Consequently, in order to establish a conclusive diagnosis, histological confirmation is frequently required^[3].

Depending on the size, location and patient tolerance of the lesion, various management strategies are discussed in the literature. surgical excision, cryotherapy, or laser ablation are usually used to treat oral warts. Complete excision seldom results in recurrence, however follow-up is essential to monitor for potential regrowth^[4]. This case report presents a rare case of oral wart in a 7 year old patient and describes the clinical representation, treatment modalities and outcome of the same. This case report contributes to the limited literature present on oral warts found in pediatric population.

Case Report

A 7-year-old child with a little growth over his lower lip came to the dentistry department with his parents. There had been no pain or discomfort associated with the lesion for the previous two to three months. According to the parents, there was no history of trauma, related lesions, or systemic diseases.

Upon inspection, a cauliflower-like, pedunculated, exophytic growth was seen (figure 1). The lesion was located on the lower lip and was around 0.4×0.4 cm. With a rough surface, absence of erythema, ulceration, or non progressive lesion, it seemed to be a benign growth.

To rule out any contraindications for surgical therapy, routine blood examinations were performed. Under local anesthetic, an excisional biopsy was carried out with the parents' agreement and one suture was given (Figure 2). The excised specimen (figure 3) was sent for histopathological analysis. The lesion's histopathological analysis revealed acanthosis, hyperkeratosis and parakeratosis. Additionally, with the basement membrane intact, blunt rete ridges with downward projection were seen (figure 4).

Discussion

oral warts are very uncommon in children. Their etiology is mainly associated with low-risk HPV strains, including HPV-11 and HPV-6^[1]. Epithelial cells are infected by the virus, which causes hyperplasia and the distinctive exophytic, verrucous growth. Despite being benign, oral warts in children present significant challenges regarding the knowledge of routes of transmission, the precision of diagnosis, and appropriate management strategies.

HPV can spread in pediatric patients through autoinoculation from other body areas, vertical transmission during childbirth, or horizontal transmission through direct contact with caregivers^[2]. In this case, no history of trauma, immunosuppression, or exposure to other HPV lesions was reported, suggesting horizontal transmission as the most likely route.

The clinical presentation of oral warts can be easily confused with other oral mucosal lesions, including verruca vulgaris, fibromas, verruciform xanthomas, and even early manifestations of malignant conditions^[3]. The solitary, soft, and papillomatous lesion in this case was consistent with a squamous papilloma, confirmed through histopathological examination (Figure 2). Histologically, these lesions exhibit hyperkeratosis, papillary projections, and koilocytosis, which are pathognomonic for HPV-induced epithelial changes.

The most effective way to treat oral warts is still surgical removal, especially if the lesion is easily accessible and well-defined^[5]. Complete excision was carried out in this instance under local anesthesia, the patient experienced an uneventful recovery and after six months of follow-up showed no signs of recurrence. When surgery is not an option, other therapies such cryotherapy, laser ablation, and topical antiviral medications may be taken into consideration; however, the rate of recurrence may differ based on how thoroughly the lesion is removed^[5].

This instance is consistent with the limited literature on juvenile oral warts, which frequently highlights how uncommon these presentations are in young patients^[6, 7]. The difficulties in diagnosing these lesions and the significance of histological evidence in ruling out other illnesses have been highlighted by similar cases. Unlike adult cases, pediatric presentations are often asymptomatic and found incidentally, highlighting the necessity of careful oral examinations during

normal dental visits.

The significance of clinician awareness in assessing pediatric oral lesions is emphasized by this case. Early identification and effective management can save unneeded anxiety for caregivers and minimize potential problems, such as secondary infection or recurrence. Additionally, educating parents about the benign nature of oral warts and their transmission mechanisms is crucial to alleviating concerns.



Fig 1: Clinical representation of oral wart on lower lip



Fig 2: Placement of suture



Fig 3: Excised Specimen

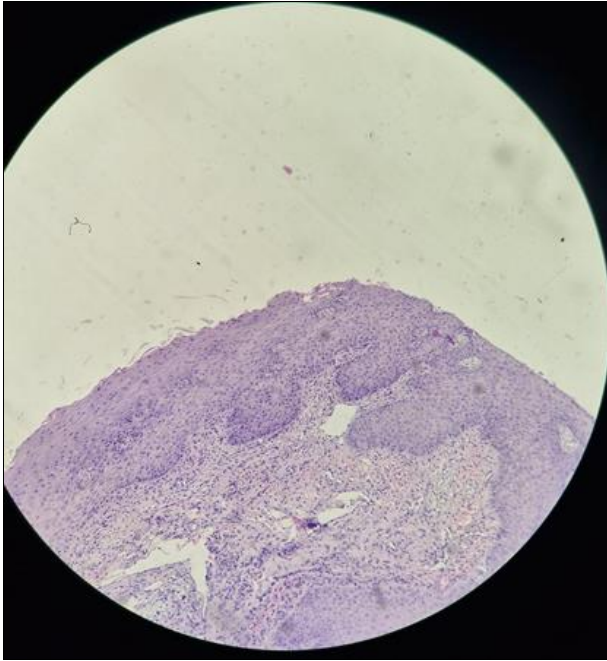


Fig 4: Histopathological examination

Conclusion

Oral warts in children, though rare, present diagnostic and management challenges due to their similarity to other oral lesions. Histopathological examination is crucial for an accurate diagnosis. Surgical excision remains the most effective treatment, with minimal risk of recurrence when performed thoroughly. This case highlights the importance of early detection and intervention, as well as educating caregivers about the benign nature of the condition to reduce anxiety and ensure proper follow-up care.

Conflict of Interest

Not available.

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