

Case Report

Case Report: Persistent Oral Mucosal Warts in a Child Treated Surgically with Long-Term Remission

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Abstract

Oral mucosal warts are a rare manifestation of human papillomavirus (HPV) infection in children. We report a 7-year-old Sudanese female with persistent multifocal oral warts resistant to medical therapy. Histopathology confirmed HPV-related verruca. Due to limited molecular resources, HPV DNA PCR and genotyping were not performed, representing a study limitation. The patient underwent complete lesion removal using electrocautery under general anesthesia followed by adjuvant acitretin (0.4 mg/kg/day), cautious reintroduction of topical imiquimod, and zinc supplementation. Sustained remission was achieved at 24 months without recurrence or scarring. This case highlights the value of combining surgical debulking with structured immunomodulation in refractory pediatric oral HPV lesions.

INTRODUCTION

HPV-related oral lesions in children are uncommon and diagnostically challenging [1]. Common subtypes reported in oral warts include HPV-2, HPV-4, HPV-6, and HPV-11. Molecular confirmation is ideal for genotype correlation. However, access to PCR testing may be limited in resource-constrained settings [2].

CASE PRESENTATION

A 7-year-old Sudanese female presented with multiple verrucous lesions affecting the buccal mucosa, tongue, and inner lips for over one year. The lesions increased in size and number and interfered with feeding and speech. There was no history of abuse, trauma, or systemic disease [3].

Baseline lesion burden:

- Total lesions: 18
- Size range: 0.2–0.5 cm
- Distribution: Buccal mucosa (8), Tongue (5), Inner lips (5)

DIAGNOSTIC WORKUP

Histopathology revealed hyperkeratosis, acanthosis,

papillomatosis, and koilocytosis consistent with HPV-induced wart. HIV testing and immunologic screening were negative [4].

HPV Virological Assessment

HPV DNA testing and genotyping via PCR were not performed due to limited availability of molecular facilities. This represents a limitation of the manuscript. Subtype discussions are therefore based on published epidemiological data rather than patient-specific molecular confirmation [5].

MANAGEMENT

Electrocautery under general anesthesia achieved complete removal of all visible lesions in a single session. No intraoperative or postoperative complications occurred [6].

Adjuvant Therapy and Safety Reporting

Patient weight: 24 kg

Acitretin

Acitretin was administered at 10 mg/day (0.4 mg/kg/day) for 6 months. Baseline and 8-week interval laboratory monitoring (LFTs, lipid profile) were performed.

Adverse effects: Mild cheilitis and lip dryness managed with emollients. No hepatotoxicity or lipid abnormalities observed [7].

Imiquimod Reintroduction Protocol

Imiquimod 5% cream was reintroduced 3 weeks postoperatively after complete healing.

- Application site: previous lesion beds only
- Initial frequency: twice weekly for 2 weeks
- Increased to: every other day as tolerated
- Contact time: 30 minutes gradually extended to 2 hours
- Stopping rule: discontinue if ulceration or significant irritation occurred

Tolerability: Mild transient erythema occurred without ulceration or feeding difficulty [8].

Zinc Supplementation

Oral zinc sulfate at 1 mg/kg/day elemental zinc for 6 months. No gastrointestinal adverse effects reported.

CLINICAL TIMELINE

Month 0: Presentation

Month 0–6: Failed conservative therapy

Month 6: Electrocautery

Week 3: Complete healing

Month 1–6: Adjuvant therapy

Month 12: No recurrence

Month 24: Sustained remission

OUTCOME

At 24-month follow-up, the patient remained lesion-free with normal feeding, speech, and age-appropriate weight. No scarring or functional impairment was observed.

Guardian consent for photography and publication was obtained [9].

DISCUSSION

This case demonstrates that surgical debulking combined with structured immunomodulation can provide durable remission in refractory pediatric oral warts. The absence of molecular HPV confirmation is acknowledged as a limitation, and future cases should incorporate PCR-based genotyping where feasible [10].

CONCLUSION

Early surgical eradication followed by carefully monitored immunomodulatory therapy may represent an effective strategy for persistent pediatric oral HPV lesions.

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