

# Human Papilloma Virus Related Warts in the Pediatric Dental Patient: A Case Report

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## INTRODUCTION

The human papilloma virus (HPV) is a DNA virus that infects the basal epithelial cells<sup>1</sup>. HPV is associated with multiple benign and malignant diseases<sup>2</sup>. HPV has been associated with benign lesions in the oral cavity including squamous papilloma, condyloma acuminatum, verruca vulgaris, and focal epithelial hyperplasia<sup>2</sup>. HPV has also been found to be associated with oral and oropharyngeal cancers<sup>2</sup>. In addition to sexual transmission of HPV, this virus can also be transferred via fomites, fingers, mouth, and skin contact<sup>3</sup>. Self-inoculation is another mode of transmission for HPV<sup>3</sup>.

Due to the high prevalence of HPV and its impact on oral and overall health, healthcare providers, including dentists, must be well educated in the diagnosis, treatment, and prevention of HPV. This includes Pediatric Dentists, who have a unique role with the pediatric and adolescent populations.

## CASE REPORT

A 7 year old male presented to the University of Connecticut Pediatric Dental Clinic in March 2022 for an emergency visit. The mother entered with the chief complaint of “he has warts”. The patient has a past history of warts on both his thumbs that fluctuate in size then subsequently fall off. About 8 months ago, the patient developed additional projections on his chin and left eyelid. The patient was not experiencing any pain or discomfort.

Clinical exam revealed no palpable lymph nodes, no adenopathy, and no facial asymmetry extra orally. Two white fingerlike projections were noted on the chin under the midline of the lower lip. One fingerlike projection was noted on the upper left eyelid to the left of the midline. Two round skin colored papules with rough surfaces were located on the left and right thumbs.

Intraorally one fingerlike projection was noted on the inner left lip adjacent to the area of tooth #M. There were no other significant findings on the gingiva, tongue, or palate. No significant findings in the dentition.

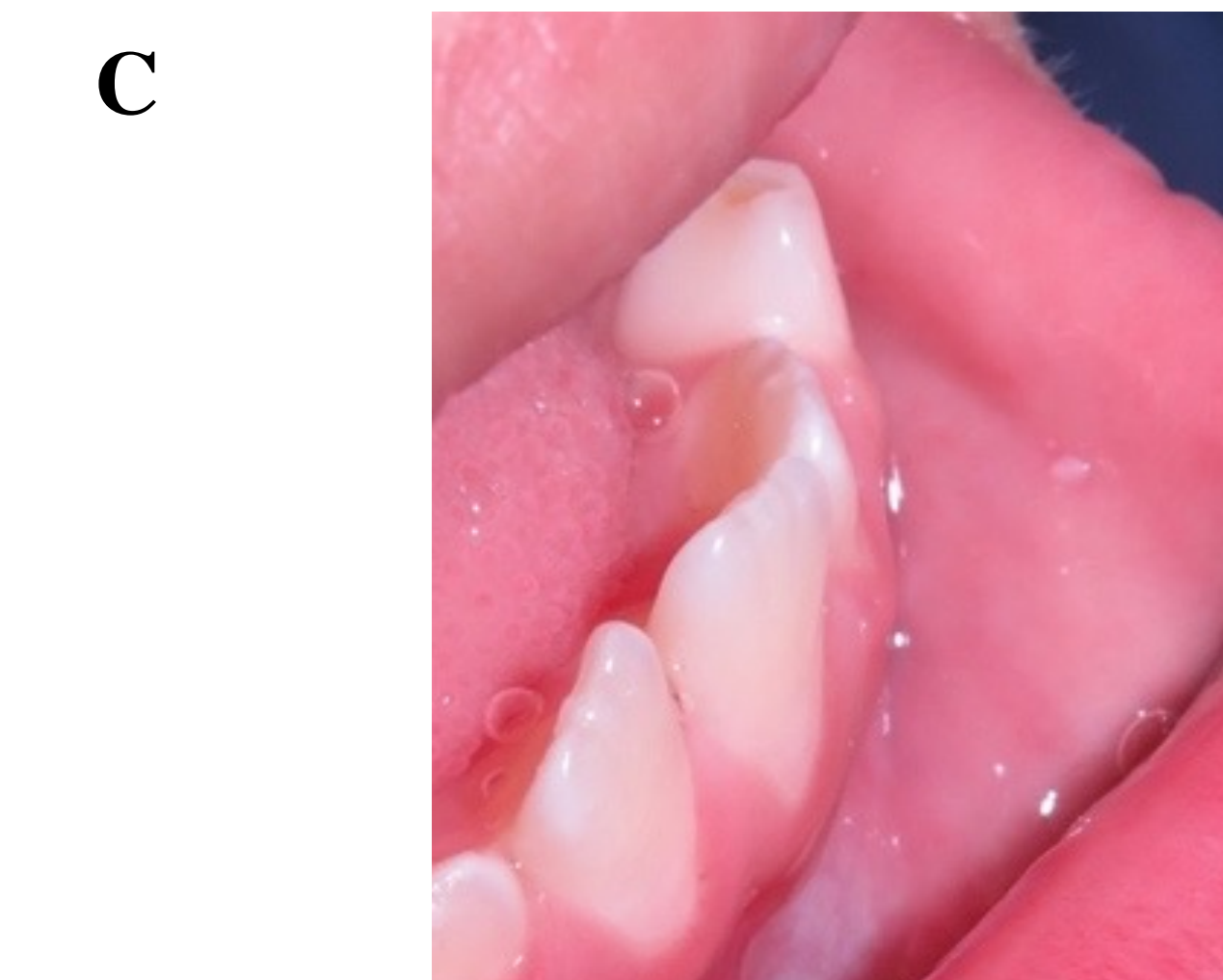
## CLINICAL PRESENTATION



A. Two soft white pedunculated finger like projections located in the mentolabial sulcus below the lower lip.



B. Another view demonstrating the two finger like projections located below the lower lip.



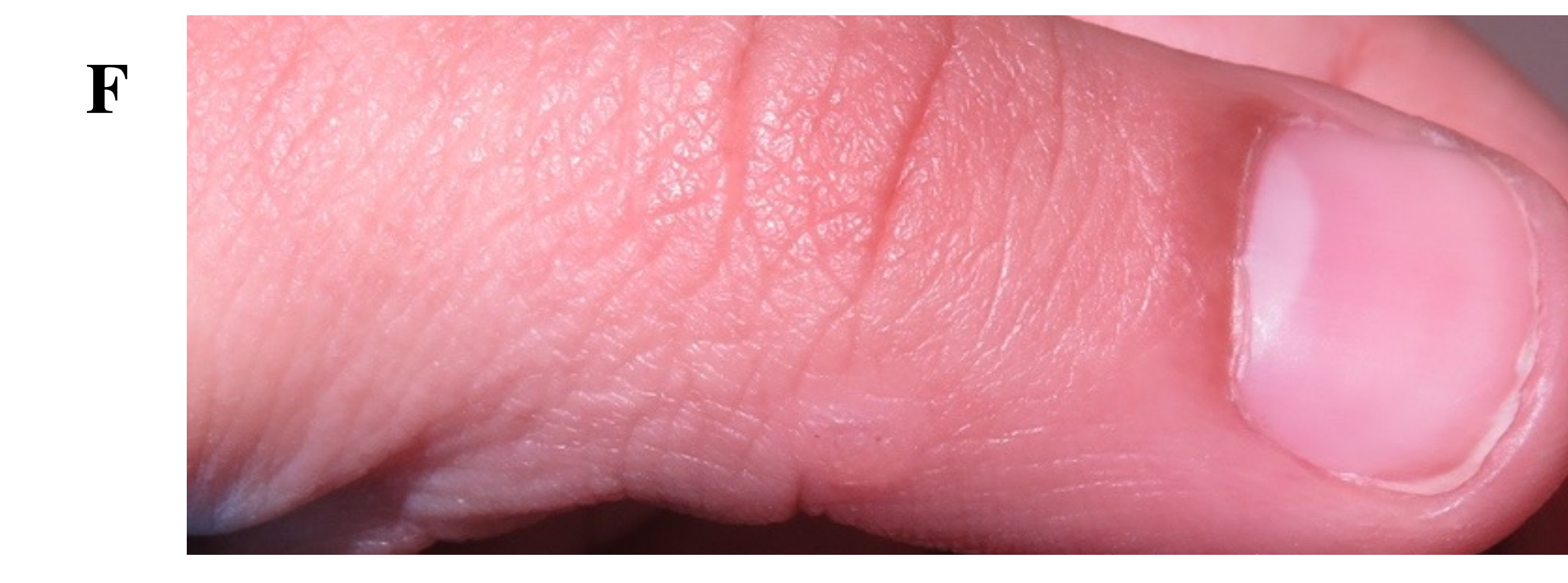
C. One soft white pedunculated finger like projection located inside the lower lip to left of the midline adjacent to tooth #M.



D. One soft white pedunculated finger like projection located on the upper left eyelid.



E. One skin colored round papule with rough surface located on the dorsal portion of the thumb.



F. One skin colored round papule with rough surface located on the lateral portion of the thumb.

## TREATMENT PLAN

An oral pathology consult was completed, and the differential diagnosis included verruca vulgaris and HPV related warts or squamous papilloma. Treatment options were reviewed, including continual monitoring due to the warts often regressing on their own or surgical removal. Another option for treatment included a Dermatology referral for the removal of the cutaneous warts by cryosurgery or Cantharidin treatment<sup>4</sup>. According to the American Academy of Dermatology (AAD), electrosurgery and curettage, excision, laser treatment, and chemical peels are additional treatment options that may be considered<sup>4</sup>. Options were presented to and discussed with mother. The mother decided to seek alternative care outside the health center for additional treatment.

## DISCUSSION

This case illustrates the clinical presentation, diagnosis, and treatment options of HPV related warts in the dental setting. The discussion about HPV should also include the importance of the HPV vaccine. The current HPV vaccine, Gardasil-9 (9vHPV), protects against 9 strains of HPV<sup>5</sup>. This includes HPV types 6, 11, 16, 18, 31, 33, 45, 52, and 58<sup>5</sup>. The two strains of HPV most commonly associated with benign warts of the mouth and skin are HPV 6 and 11, both of which are included in this vaccine<sup>6</sup>. In addition, this vaccine helps protect against cervical cancer and oropharyngeal cancers, making it an essential part of the education provided by Pediatric Dentists.

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