

Dental Management of Gingival Pathology: A Case Report

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Introduction

Spongiotic gingival hyperplasia (formerly known as localized juvenile spongiotic gingival hyperplasia) is a benign condition that frequently presents itself in younger individuals. The affected attached gingiva of the maxillary incisors appears edematous, erythematous, and velvety. The etiology of this condition is idiopathic; however, there is evidence that histologically, the lesions demonstrate ectopic junctional epitheliums (1). The condition affects more females than males, and in individuals younger than 20 years old. This case reports on a 10-year-old Hispanic male who presented with erythematous maxillary anterior gingiva and the various conservative treatment attempts made before moving forward with an incisional biopsy. It also stresses the importance of interprofessional collaboration and patient compliance for the most desired outcome.

Case Report

Patient Background

Chief Concern: red gums that are sensitive only when brushing for the past 3 years (no sensitivity with hot or spicy foods)

Medical Conditions: none

Medications: none

Allergies: seasonal

Birth: the patient was in the hospital for a week due to seizures from low Vitamin D and calcium levels, but these symptoms resolved with no recurrence

Intraoral Evaluation (see Figure 1): erythematous facial gingival margins of teeth C, 7, 8, 9, 10, and H; generalized plaque buildup (orange hue); no bleeding upon probing (1-4 mm probing depths circumferentially); bleeding when brushing

Radiographic Evaluation (see Figure 2): no signs of bone loss or pathologies

Differential Diagnosis #1: Localized Plaque-Induced Gingivitis

a. Oral Hygiene Routine (see Figure 3)

The patient’s mom stated that the patient does not brush his teeth on his own and she must brush for him. The patient does not floss at all. Oral hygiene instructions were reviewed after prophylaxis completed. Recommended use of an electric toothbrush and manual floss for the next 2 weeks to see if there are improvements.

b. Chlorhexidine Rinse

After 2 weeks of strict home oral care, there was improvement. However, the spongy gingival appearance was still present. Consulted with the pathologist at this time, and a chlorhexidine rinse was recommended for 2 weeks.

Differential Diagnosis #2: Allergic Contact Reaction

a. Sodium Bicarbonate Toothpaste (see Figure 4)

Though the erythematous gingiva was still present, the pathologist agreed that the rinse seemed to dull the intensity of the erythema. Therefore, the patient was to continue using the rinse as well as switch out his Colgate mint toothpaste to a neutral one, Arm & Hammer, to rule out any possibility of allergies to toothpaste flavoring agents.

b. Cinnamon Allergy

Previous studies have shown many oral mucosal lesions are due to toothpaste flavoring agents or cinnamon (4). However, the patient and parent denied any consumption of cinnamon at home.

Confirmed Diagnosis: Spongiotic Gingival Hyperplasia (see Figures 5 and 6)

An incisional biopsy was performed with a metal 15 scalpel around the lesion above tooth 7. The incised tissue was placed in formalin and silver nitrate was placed on the surgical site to control hemorrhage. The incised tissue was sent to a pathology lab for analysis. Histologically, there was stratified squamous epithelium with spongiosis and intraepithelial neutrophils. Inflammation and hyperemia were present in the connective tissue layer. These findings are consistent with spongiotic gingival hyperplasia (2).

Treatment choices included excision (laser versus scalpel) in conjunction with corticosteroids or monitoring. Studies show that there can be spontaneous regression of the hyperplastic tissues, but recurrence can occur around 6% to 29% of the time for solitary lesions or around 39% for multifocal lesions (3). Regression can occur after the patient passes puberty (1). All risks, alternatives, and benefits were discussed with the patient’s guardian, but the patient’s mother chose to monitor for now.

Conclusion

As the case report demonstrated, spongiotic gingival hyperplasia does not resolve with improved oral hygiene nor removal of possible allergic contacts. Pediatric patients are much more likely to tolerate conservative treatment approaches, which the guardian chose in this situation. It is important to note that this approach usually takes several years for clinical improvement, but relapse may occur. However, even with excisional removal of these lesions, recurrence is possible. Currently, most researchers recommend surgical intervention especially if there are concerns with esthetics or symptoms such as constant pain (1). Clinicians should treat each patient on a case-to-case basis when deciding on conservative versus surgical intervention.



References

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