

Trends in Biopsy and Referral Patterns of Soft Tissue Lesions by Pediatric Dentists

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LEARNING OBJECTIVES

Upon review of this material, the observer will be able to...

1. Determine how many pediatric dentists perform biopsies.
2. Identify from the most biopsied lesions listed in AAPD's guideline "Management Considerations for Pediatric Oral Surgery and Oral Pathology" which lesions pediatric dentists biopsy themselves versus refer out to specialists for biopsy.
3. List trends in categories such as location, color, morphology, symptoms, size, or growth rate of soft tissue pathology that could determine if a pediatric dentist refers the patient for a biopsy.

INTRODUCTION

Pediatric dental guidelines exist about the presentation and characteristics of commonly observed pediatric oral pathological lesions. There are also pediatric dental guidelines about therapeutic treatment for some, but not all, of the commonly observed oral pathological lesions. Identifying and categorizing referral patterns could benefit patient care by decreasing visits and costs.

The American Academy of Pediatric Dentistry's Management Considerations for Pediatric Oral Surgery and Oral Pathology (2020) identifies the top 20 most biopsied lesions in children:

- mucocele
- fibrous lesions
- pyogenic granuloma
- dental follicle
- human papillomavirus (HPV) lesion
- chronic inflammation
- giant cell lesions (soft tissue)
- hyperkeratosis
- peripheral ossifying fibroma
- gingivitis
- gingival hyperplasia
- hemangioma
- ulcer
- lymphangioma
- sialadenitis
- Burkitt lymphoma
- melanotic macule
- pleomorphic adenoma
- nevus
- neurofibroma

This survey could shed light on whether pediatric dentists use biopsy procedures for diagnostic management of soft tissue abnormalities.

PROPOSED METHODS

- The survey was distributed to the American Academy of Pediatric Dentists (AAPD) members list.
- All were asked demographic questions.
- The survey branched if they answered "always or sometimes" or "never" to performing biopsies in office.

Select the characteristics of lesions that would direct you to perform a biopsy:	Select the characteristics of lesions that would direct you to refer for a biopsy:
Location: gingival, labial, buccal, lingual, skin of the face, or lesions of the neck	
Color: red, white, black or blue lesions	
Morphology: flat, raised, nodular	
Symptoms: painful, burning, itching, asymptomatic	
Size: size in millimeters	
Growth rate: rapid, slow, or stable	
Where are biopsy specimens sent? Oral pathologist, general pathologist, dermatopathologist	Where do you send your patient referrals for suspected pathology? oral surgeon, oral pathologist, periodontist, dermatologist, oral medicine specialist, pediatrician, general dentist
Would you perform a biopsy if your clinical diagnosis included any of the listed possibilities?	Would you refer for a biopsy if your clinical diagnosis included any of the listed possibilities?
Fibroma, gingival hyperplasia, gingivitis, hemangioma, hyperkeratosis, lymphangioma, lymphoma, melanotic macule, mucocele, nevus, neurofibroma, peripheral giant cell granuloma, peripheral ossifying fibroma, pleomorphic adenoma, pyogenic granuloma, ulcer	

PURPOSE

This study aims to examine if there are trends in which lesions are biopsied by pediatric dentists, referred by pediatric dentist to other specialists for biopsy, and overall characteristics of the lesions that may qualify a lesion to be biopsied in office or referred.

RESEARCH HYPOTHESES

- 1.) It is hypothesized that private practice pediatric dentists come across suspected oral pathology but do not perform biopsies of oral soft tissue abnormalities in their office.
- 2.) Additionally, it is hypothesized that there are trends in biopsy and referral patterns between pediatric dentists and other specialists.



Mucocele
brownmedpedsresidency.org/infant-oral-pathology/



Bohn's nodules
indianpediatrics.net/oct2014/oct-849-850.htm



Pencil graphite
jcda.ca/article/d14



Pyogenic granuloma
<https://www.ijcpd.com/abstractArticleContentBrowse/IJCPD/25810/IPI/fullText>



Localized juvenile spongiotic gingival hyperplasia
tosios.gr/dhmosiefseis/A79.pdf



Herpes simplex virus gingivostomatitis
rch.org.au/clinicalguide/guideline_index/HSV_Gingivostomatitis/

ANTICIPATED RESULTS

The survey through Qualtrics was dispersed to emails on the AAPD listserv totaling more than 7,000 members. The responses from the survey will undergo statistical analysis.

POTENTIAL SIGNIFICANCE OF FINDINGS

Should the Research Hypotheses be upheld, the findings might have the following significance:

1. Highlight which lesions are typically biopsied in office by pediatric dentists versus referred to specialists.
2. Underscore physical characteristics of lesions that warrant biopsy either by pediatric dentists or other specialists.
3. Quantify how many pediatric dentists perform in office soft tissue biopsies.

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