



Differential Diagnosis of a 12-year-old Presenting with a Nodular Sessile Lesion on the Hard Palate: Review of the literature and report of a case.

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ABSTRACT/INTRODUCTION

Soft-tissue lesions in children present with a wide range of etiologies, including those related to normal development, underlying systemic illness and/or those associated with benign or malignant tumors.⁶ In children and adolescents, the most common soft tissue lesions include aphthae, fibromas, papillomas, pyogenic granulomas and traumatic lesions all of which may present on the hard palate.³ This case report details a 12-year-old female presenting to Children's Mercy Dental Clinic with a chief complaint of a flesh-colored nodular sessile lesion visualized on the anterior hard palate, directly posterior to teeth #8 and #9. The patient's medical history is non-contributory, and she has no known allergies. The purpose of this report is to present the relevant patient findings noted in this case including the clinical and radiographic exam, differential diagnosis, and referral for definitive treatment. A literature review of intra-oral soft tissue lesions in pediatric patients will also be presented.

CASE REPORT

A 12-year-old female presented to the dental clinic at Children's Mercy Hospital in Kansas City after a referral from her primary care physician due to a "fleshy growth on the hard palate". The patient and parent reported the lesion was noticed during a routine dental screening at school. They denied any previous trauma, stated that it will bleed occasionally and noted it had grown since it was detected. Her medical history was reviewed and was deemed noncontributory besides the recent start of her menses. The extraoral exam was within normal limits. The intraoral examination revealed mixed dentition, mild gingival inflammation with moderate crowding in the mandibular anterior region and existing sealants on the permanent first molars. Pertaining to the referral, there was a 1x1.5cm nodular sessile lesion on the hard palate directly posterior to teeth #8 and #9. A periapical radiograph and panoramic film were taken and revealed no pathology or hard tissue irregularities. Upon palpation and occlusion, the patient reported no pain.

A consultation with an oral pathologist was performed to obtain a differential diagnosis and plan for treatment. The differential diagnosis included: a pyogenic granuloma due to hormonal changes or traumatic occlusion or a peripheral ossifying fibroma. Although the lesion is likely benign and reactive, the patient was referred to University Health to have the lesion excised and biopsied. Follow-up in our clinic was recommended to the patient after the excision and biopsy are completed.

[Figure 1: Intraoral photo](#)



[Figure 2: Intraoral photo](#)



[Figure 3: Periapical radiograph](#)



DISCUSSION/CONCLUSION

Pyogenic granulomas are reactive lesions from low grade inflammation causing inflammatory hyperplasia in the oral cavity. This response is caused by irritation, trauma, poor oral hygiene or hormonal factors. They are most commonly seen in females ages 10-19 due to the vascular effects of female hormones.² The lesions are frequently found on the gingiva or palate presenting as painless, smooth or lobulated masses that bleed due to their excessive vascularity.^{1,2}

Peripheral ossifying fibromas (POFs) are reactive lesions that are commonly present on the anterior maxillary gingiva in females during their second decade of life. They can be described as pedunculated, smooth, range in color from pink to red and normally have no radiographic presentation. POFs can be caused by poor oral hygiene, oral appliances, and restorations.⁴

Excision and biopsies play a pivotal role in prevention of recurrence and establishing a definitive diagnosis when it comes to all oral lesions. Pyogenic granulomas and POFs present differently histologically but treatment is similar. Treatment for pyogenic granulomas in the oral cavity with the lowest recurrence rate is excision under local anesthesia but can also be performed using lasers or electrocautery.⁵ Treatment for POFs include excision of the lesion and thorough debridement of adjacent teeth or removal of the offending agents.⁴

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