

Oral Pyogenic Granuloma after Tongue Piercing Use: Case Report

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Abstract

The wearing of piercings on tongue, lips, cheeks and frenulums have become more popular and may cause complications in oral tissues, such as inflammatory reaction. Oral pyogenic granuloma can occur in lips, tongue, buccal mucosa and most often on the gingiva, which corresponds to 75% of all cases. The present study report a case of pyogenic granuloma in tongue due to the use of oral piercing. It is important that professionals and public are aware of the possible complications related to the use of this intra-oral ornament.

Keywords: Pyogenic granuloma; Piercing; Tongue

Introduction

The wearing of piercings on tongue, lips, cheeks and frenulums have become more popular and may cause complications in oral tissues, such as infection, inflammation, dental fractures, trauma to the mucosa and periodontal tissue, difficulty in speaking, swallowing and chewing [1].

The pyogenic granuloma is a distinctive clinical entity, originating from a response of the tissues to various stimuli like low-grade local irritation, traumatic injury, sex hormones, bone marrow transplants and reactions to grafts [2]. Oral pyogenic granuloma can occur in lips, tongue, buccal mucosa and most often on the gingiva, which corresponds to 75% of all cases [3], with female predilection. Differential diagnosis include other reddish nodular lesion on oral mucosa [4].

The objective of this study is to present a case report of a pyogenic granuloma in tongue due to the presence of oral piercing, guiding the professionals and public about the possible complications related to the use of this intra-oral ornament.

Case Report

A 23 years-old leucoderm woman was referred to Service of Oral and Maxillofacial Surgery of Erasto Gaertner Hospital (EGH), (Curitiba-PR, Brazil) complaining of a tumor on her tongue. The patient referred as medical condition hypothyroidism, mitral valve prolapse, hypertension, depression and sinusitis.

Intra oral exam presented a pedunculated lesion on the dorsum of tongue, at midline region. The nodule was reddish, bleeding to the touch, painless with rough surface, measuring approximately 15 mm in its largest diameter (Figure 1). Patient reported use of a tongue piercing in the same area for 3 years that was removed two

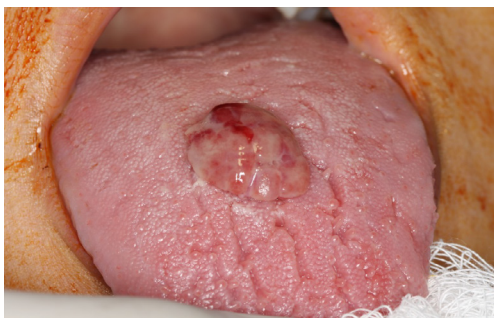


Figure 1: Clinical aspect of tongue lesion at first exam.

years before. The lesion was noted about 5 months before the first appointment.

The lesion was fully resected (Figure 2). Histopathological features showed an ulcerated lesion with endothelial cell proliferation and edematous stroma. Inflammatory cell infiltrate with scattered eosinophils was observed as well regenerating epithelium at the ulcer edge confirming the diagnostic of pyogenic granuloma (Figure 3).

The patient had a good outcome and showed no signs of recurrence after 12 months of follow-up (Figure 4).



Figure 2: Total lesion excision, showing pedunculated feature.

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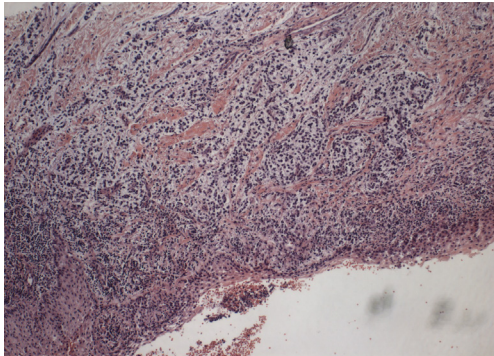


Figure 3: Histological image, showing ulcerated area and endothelial cell proliferation.



Figure 4: After 12 months follow-up, patient had no signs of recidive.

Discussion

Oral pyogenic granuloma (OPG) is a relatively common inflammatory hyperplasia, that unlike its name suggest, resembles an angiomatous lesion. The oral mucosa is the most common site of appearing, but can occur in the tongue, lips, palatine and periodontal region [2,5].

In our case, the lesion presented in the same area where patient reported a tongue piercing. Although the patient had removed the ornament two years before the appointment, the perforation of the tongue for the piercing installation left a scar area with irregular aspects that is more likely to accumulate biofilm and consequently more prone to inflammation.

The pathogenesis of this reactive proliferative process can be associated with local trauma, being the gingival irritation and inflammation due to poor oral hygiene the precipitating factor. Local irritation, biofilm, dental calculus, gingival inflammation, neonatal teeth, protruding filling margins, hormonal changes (pregnancy and menarche) are other factors that may cause this reaction [2,6-8]. Differential diagnosis include peripheral giant cell granuloma,

peripheral ossifying fibroma, metastatic cancer, hemangioma, conventional granulation tissue, hyperplastic gingival inflammation, angiosarcoma and Non-Hodgkin's lymphoma [4].

The use of oral piercings can cause mechanical trauma to oral tissues, tooth fracture, speech impediment, pain, aspiration, lip inflammation, localized tissue overgrowth, pathologic conditions such as bacterial infections, edema, allergies, lingual laceration, black tongue, galvanism, scar tissue formation, increased salivary flow, interference with radiographic images, nerve damage and paresthesia [9-12]. The case reported, was clearly observed the correlation between the oral piercing with the appearance of the OPG. There is a lack of studies reporting this type of lesion caused by long-term use of tongue piercing [13].

The body piercing happens for centuries and seems that will not have an early end. Thus, the surgeon's responsibility is to clarify the patient of all possible consequences of this, making clear that the habit can be a risk for oral, dental and general health.

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