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## Case Report

### Pyogenic Granuloma Mimicking a Cutaneous Horn on the Lip of a Child

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## Abstract

Pyogenic granuloma is a relative common nonneoplastic mouth lesion associated to irritation or trauma, but extra oral sites have been reported. The treatment employed includes removal of cause and excisional biopsy. Cutaneous horn is an uncommon lesion resembling horn of animals affecting more common in elder caucasians. It is consisted of keratotic material with an underlying primary lesion that varying from benign to malignant. Thus, the treatment of choice is commonly an excisional biopsy with a narrow margin. This paper presents an unusual case of pyogenic granuloma mimicking a cutaneous horn on the lower lip of a 6-year-old black female child.

**Keywords:** Cutaneous Horn; Pyogenic Granuloma

## Introduction

Pyogenic granuloma is a term given to a relatively common, benign, nonneoplastic, mucocutaneous, fast-growing lesion composed of granulation tissue with extensive endothelial proliferation, associated with trauma or local irritation [1-3]. The current literature does not support a correct name to this type of lesion. Nor purulent secretion neither infection is present [4,5], and a real granuloma is not observed. The most common site of its occurrence is on the marginal gingiva (75% of all cases), but other sites intra and extra oral have been reported [1-3,6].

Cutaneous horn is characterized as a protrusion of conical keratinized material from the skin, resembling a mini animal horn [1,7-10]. Actinic radiation or burns are common associated with the development of the cutaneous horn. For

this reason the lesions are most found on upper part of the face, but other various locations have been described [7,11]. This lesion may arise from a wide range of the epidermal lesions including benign, pre-malignant and malignant lesions [1,2,7,11,12]. However, Cutaneous horn is a clinical term, since similar keratotic protrusions may occur in other lesions with a delay in the shedding of keratin. This fact shows that the final diagnosis depends on histological examination of the specimens [1,7,11].

The purpose of this article is to present an unusual case of pyogenic granuloma simulating a cutaneous horn on the vermillion border of the lower lip in a black female child.

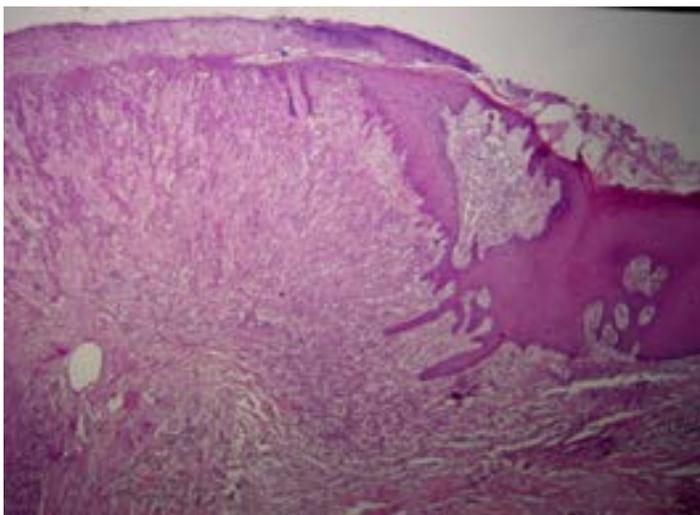
## Case report

A 6-year-old black girl was referred to our service, because

of an exophytic lesion, sessile, firm, with a red-brown color on her lower lip (Figure 1). The lesion had been present for three months with gradual increasing in size. Previous traumatic history associated to development of the lesion followed by traumatic habits with fingers and teeth increased its size. No other signs and symptoms were obtained. The clinical aspects resembling a mini animal horn lead us to the establishment of a clinical diagnosis of cutaneous horn. Considering the traumatic history of the lesion, a possible underlying lesion of pyogenic granuloma was considered. Since the final diagnosis is obtained only by microscopic evaluation, a conservative local excision was performed and the specimen was submitted to microscopic examination. The microscopic features revealed a final diagnosis of pyogenic granuloma (Figures 2 and 3). After two years of follow-up no signs of recurrence were noted.

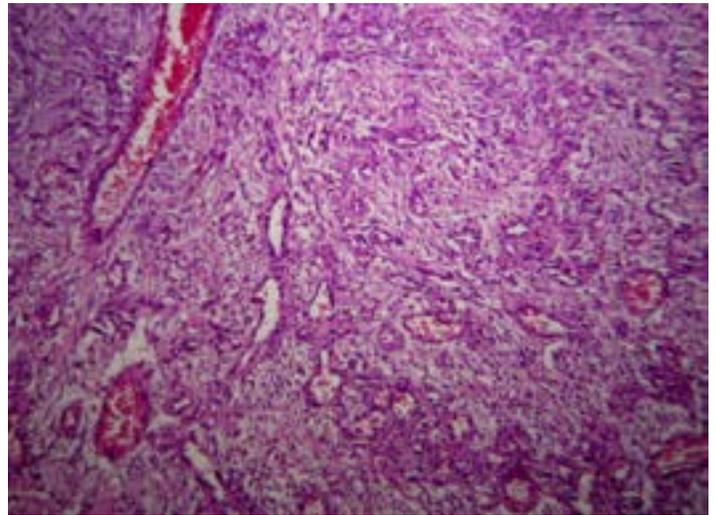


**Figure 1.** Note the exophytic, red-brown lesion on the lower lip of the child with a clinical aspect of a cutaneous horn.



**Figure 2.** The photomicrograph exhibit the overlying epithelium of the lesion showing acanthosis and extensive areas of ulceration with

a fibrinous exudate. Submucosa is composed of a loose fibrous connective tissue with inflammatory cells diffusely distributed throughout (H&E x 40).



**Figure 3.** The microscopic features consist of a loose fibrous connective tissue containing a plethora of anastomosing endothelial-lined vascular channels engorged with erythrocytes and an extensive and diffusely infiltrated of acute and chronic inflammatory cells (H&E x 100).

## Discussion

Pyogenic granuloma is a relatively common, benign, fast-growing lesion composed of granulation tissue with extensive endothelial proliferation [6,13], associated with minor trauma or irritation [2,14], as the case presented herein. The clinical presentation is usually by an elevated, sessile or pedunculated, erythematous, exophytic, resilient lesion with a tendency to bleed [2,5]. They are most frequent on the marginal gingiva in spite of other intra and extra oral sites have been reported [1,6,13]. An excisional biopsy with removal of the causative stimulus is usually the treatment choice [2,5].

Cutaneous horn is a relatively uncommon lesion consisting of keratotic material resembling a horn of animals. The primary lesion underlying the horny material may be benign, pre-malignant or malignant and the treatment is an excisional biopsy with a narrow margin, because of the possibility of malignancy [1,15]. These lesions generally occur in caucasian older patients, but a case in a 11-year-old black boy was previously reported [1]. So, the current case was conducted with an excisional biopsy with a narrow margin, since the presumed diagnosis of cutaneous horn was established.

Neither conical shape nor resemblances to the horn of animals are absolutely prerequisites for the diagnosis of cutaneous horn, since the specimens are frequently without keratin due to the disruption by eventual trauma or during surgery

[1,7,11,16]. Despite that, no history of disruption and not signals of keratin shadings on the histopathological evaluation lead us to the definition that this pyogenic granuloma was mimicking but not representing a true cutaneous horn.

Extralingival pyogenic granuloma usually appears with atypical presentation and could challenge the clinical diagnosis. Thus, this case report, illustrating an atypical and rare case in a young child, could help the clinician in the establishment of diagnostic hypotheses and the construction of final diagnosis of lesions with such appearance.

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