

An Unusual Presentation of Oral Pyogenic Granuloma on the Tongue

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Abstract

Pyogenic granuloma is a non-neoplastic reactive lesion that commonly occurs in gingiva. It is rarely found in extra gingival sites such as tongue, lip, palate and buccal mucosa. Lesions affecting the tongue are rarer and very few cases are reported. Unusual site of such lesions can be a diagnostic challenge. This case report describes an uncommon location of pyogenic granuloma occurring on the lateral border of tongue in a 60-year-old male patient.

Keywords: Pyogenic granuloma, Extra gingival, Tongue, Unusual site, Reactive lesion, Granuloma pyogenicum, Lobular capillary haemangioma.

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INTRODUCTION

Pyogenic granuloma (PG), also known as lobular capillary haemangioma or granuloma pyogenicum is one of the inflammatory hyperplasia seen in the oral cavity [1, 2]. This term is a misnomer because pus formation is not related to this lesion and histologically it is not a true granuloma [3]. Oral PG is a smooth or lobulated exophytic lesion presenting as small, red erythematous papules with pedunculated or sessile base, which is usually haemorrhagic. Most common in females. Gingiva is the most commonly affected site for Oral PG. In this article describes one unusually presentation of a large PG on extra gingival site.

Patient Details

A 60-year-old male patient reported to the department of oral medicine and radiology with a chief complaint of painless and slowly growing swelling on the left lateral border of the tongue for 1 month. It was sudden in onset, peanut in size initially, and gradually increasing in size, it was associated with slight difficulty in swallowing and speaking. Patient also gives a history of sharp broken tooth on the same side and he confess a history of trauma due to the same sharp broken tooth edge. Tooth was removed three weeks back. There was no history of similar swellings in other body parts. His medical and dental history was not significant.

Clinical Examination

On examination there was a single, pale to pinkish exophytic growth 2.5 cm diameter, arising from the left lateral border of anterior 2/3rd of the tongue with a pedunculated base (Figs. 1). It was soft to firm in consistency, non-tender with a smooth surface. There was no pus discharge and no bleeding on palpation. Tongue mobility was normal. Based on the history and the physical findings, Traumatic fibroma was considered as provisional diagnosis.



Fig. 1: Pyogenic granuloma on tongue.

Differential Diagnoses:

Hemangioma, papilloma and carcinoma on tongue were considered as the differential diagnoses.

Investigation

Excisional biopsy was performed under local anesthesia. The histopathological examination revealed that the lesion was covered by benign squamous

mucosal epithelium and made up of proliferation of blood vessels. Also noticed was fibroblast proliferation. The stroma was oedematous showing inflammatory infiltration by lymphocytes and plasma cells. The Squamous mucosal epithelium appeared ulcerated. This was consistent with the diagnosis of pyogenic granuloma (Fig. 2).

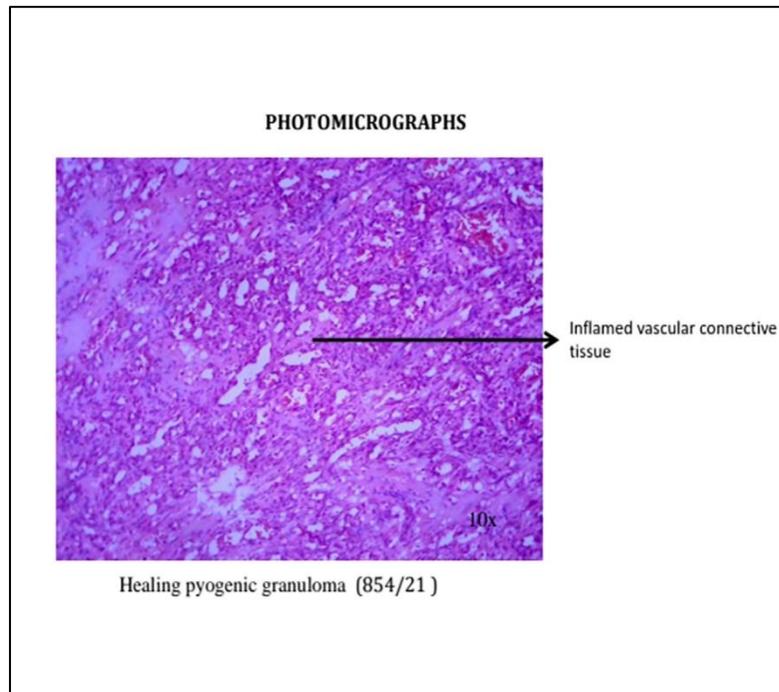


Fig. 2: Photomicrographs of the lesion

Therapeutic Intervention:

Surgical excision of the lesion was done. Oral hygiene instructions, Analgesics and antibiotic therapy were given for 2 weeks.

Follow-up and Outcome:

Follow-up after two weeks revealed satisfactory healing of the surgical site. After one month of review revealed a completely healed surgical site. No recurrence of lesion was noticed after one year of follow-up.

DISCUSSION

Oral Pyogenic granuloma is one of the most common gingival tumor, it has a striking predilection for the gingiva, interdental papillae are the most common site in 70% of the cases. They are more commonly seen on the maxillary anterior area than any other area in the mouth. Most common precipitating factors in oral pyogenic granulomas are gingival irritation and inflammation due to poor oral hygiene, dental plaque and calculus or over-hanging restorations.

Extralingual sites for pyogenic granulomas are lower lip, tongue and palate, which are the areas of frequent trauma but it is usually rare [4].

PGs on tongue are a rare presentation. The lesion on tongue usually presents as diagnostic challenge as it also is the site for benign salivary gland tumor, Lymphangioma, hemangioma and Mucocele. Three main groups of minor salivary glands are found in different locations of the human tongue. Other differential diagnoses include fibroma, lipoma and inflammatory lesions such as fibro epithelial polyp [5].

PGs are usually presented as single nodular or pedunculated lesion with smooth or lobular surface, usually painless, size various from few mm to few cm. Matured lesions are characterized by poorer vascularization, increased amount of collagen and become pink in color [6].

The most common treatment option for pyogenic granuloma is excision, because the excision shows low rate of recurrence [3, 7]. Location of the lesion and size also determines the type of treatment like curettage, electrocautery, radiosurgery, cryosurgery, sclerotherapy, or laser treatment [3]. The histopathological examination of pyogenic granuloma shows exuberant granulation tissue which is covered by atrophic/hyperplastic epithelium that may be ulcerated at times and reveals fibrinous exudates. Presence of

numerous endothelium-lined vascular spaces and proliferation of fibroblasts and budding endothelial cells are the characteristic features of pyogenic granuloma [8]. According to Epivatianos A *et al.*, there are two variants of pyogenic granuloma depending on the rate of proliferation and vascularity; these are lobular

capillary haemangioma and non-lobular capillary haemangioma [9].

Some other presentation of oral pyogenic granuloma and its treatments which is reported previously are given in the table 1 [10].

Table 1: Other presentations of oral pyogenic granuloma

Numbers	Age and Sex	Anatomical Region	Underlying Triggers	Treatment and Other information	Reference
1	35-year-old male	Dorsum of the tongue	No underlying trigger	Saucerization	Sheehan and Leshner.
2	33-year-old female	Gingival mucosa	No underlying trigger	Surgical excision	Madi <i>et al.</i> ,
3	26-year-old female	Gingival mucosa	Pregnancy (24 weeks of gestation)	Surgical excision	Barzegar <i>et al.</i> ,
4	23-year-old female	Cheek (left)	Pregnancy (28 weeks of gestation)	Punch biopsy	Odins <i>et al.</i> ,

CONCLUSION

Pyogenic granuloma is a common lesion occurring in the oral cavity however its extra gingival occurrence is quite rare. This article highlights an uncommon presentation of pyogenic granuloma on the tongue which can be a diagnostic dilemma. Through this case report, we are trying to highlight to the necessity of detailed clinical examination followed by histopathological evaluation for the accurate diagnosis of such oral lesion.

Key Messages: Uncommon presentation of pyogenic granuloma on the tongue which can be a diagnostic dilemma. Hence a detailed clinical examination followed by histopathological evaluation is necessary for the accurate diagnosis of such oral lesions.

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