

*Nidhi M. Shah, **Vandana Shah, ***Mitul H. Shah, ****Himanshu Shrivastava

ABSTRACT

Telangiectatic granuloma is primarily a reactive tumor like overgrowth in oral cavity due to irritation, physical trauma or hormonal factors. It predominantly occurs on maxillary facial gingiva and mainly in anterior region, in the second decade of life of young females. Gingiva is the most common site of occurrence accounting about 75% of all cases due to presence of chronic low grade irritation caused by calculus within the gingival crevice. In this report we present a case of telangiectatic granuloma in floor of the mouth which is relatively unusual site of occurrence. 30-year-old female patient had noticed a growth in mouth for 3 months. The surgically removed mass was histologically evaluated. It was composed of parakeratinized stratified squamous epithelium and underlying connective tissue stroma with numerous dilated and engorged blood filled capillaries lined by plump, proliferating endothelial cells.

Keywords: Telangiectatic, Pyogenic, Granuloma, Gingiva.

Received: 10-05-2014; **Review Completed:** 02-07-2014; **Accepted:** 04-08-2014

INTRODUCTION:

The oral cavity is often exposed to traumatic and irritating agents that produce tissue response, especially by the soft tissues. Telangiectatic granuloma is a benign inflammatory hyperplastic lesion that affects the skin and the oral mucosa, and appears as a response to local trauma or chronic irritation creating a repair tissue (granulation) produced by the body as a defense mechanism.¹

Although originally thought to be caused by pyogenic organisms, pyogenic granuloma is now believed to be unrelated to infection. So the term 'pyogenic granuloma' is a misnomer because the lesion does not contain pus and is not strictly speaking a granuloma.² It is more correctly called "Telangiectatic Granuloma" as the lesion is highly vascular.³

Gingiva is the most common site of occurrence accounting about 75% of all cases due to presence of chronic low grade irritation caused by calculus within the gingival crevice.⁴ Other common sites are lips, tongue buccal mucosa and palate. In this report, the authors present the clinical, macroscopical and histopathological features of

telangiectatic granuloma excised from floor of the mouth.

Case report:

A 30 years old female consulted with the chief complaint of a growth in floor of the mouth since 3 months. She was asymptomatic before 6 months when she noticed a growth on floor of mouth which was painless and causing difficulty in chewing and speaking. It was excised and associated with profuse bleeding. About 3 months later it recurred at the same location, arising painlessly and gradually increasing to the present size.

An intraoral examination revealed a single well defined, oval, reddish pink, pedunculated growth of size 1.5 cm x 1 cm present on floor of the mouth extending from mandibular left central incisor to right lateral incisor with smooth surface and ulceration at one area (Figure - 1).



Figure -1:
Intra oral clinical picture

* Senior Lecturer, ** Head of the department, *** MDS, **** Post Graduate Student

DEPARTMENT OF ORAL PATHOLOGY RAJASTHAN DENTAL COLLEGE AND HOSPITAL, JAIPUR, RAJASTHAN.
DEPARTMENT OF ORAL PATHOLOGY K.M. SHAH DENTAL COLLEGE AND HOSPITAL DIST. VADODARA GUJARAT, INDIA.

ADDRESS FOR AUTHOR CORROSPONDENCE : DR. NIDHI M. SHAH, TEL: +91 9408028408

It was soft and non tender on palpation. Oral hygiene was poor with generalised grade II calculus deposits and localized periodontitis in relation to mandibular anterior teeth. On clinical examination, diagnosis of pyogenic granuloma was made, lesion was excised with entire base under local anaesthesia and excision was again associated with profuse bleeding irrespective of any other bleeding disease. Scaling and root planing was performed in adjacent teeth. The excised specimen was histopathologically evaluated.

Gross examination revealed a single oval tissue of app. Size 1.2 cm x 1 cm x 0.7 cm, pinkish white in colour, firm in consistency, having smooth surface and regular borders (Figure-2 & 3).



Figure -2:
Gross specimen



Figure -3:
Grossing picture

Histopathologically, it was of non-lobular capillary hemangioma type showing parakeratinized stratified squamous epithelium with elongated and anastomosing rete ridges. Ulceration was evident in one area. Underlying connective tissue stroma showed collagen fiber bundles and plump fibroblasts. Numerous dilated and engorged blood filled capillaries lined by plump, proliferating endothelial cells were also noted. The deeper connective tissue revealed dense chronic inflammatory infiltrate composed chiefly of lymphocytes. (Figure - 4,5,6,7). It was diagnosed as a telangiectatic granuloma.

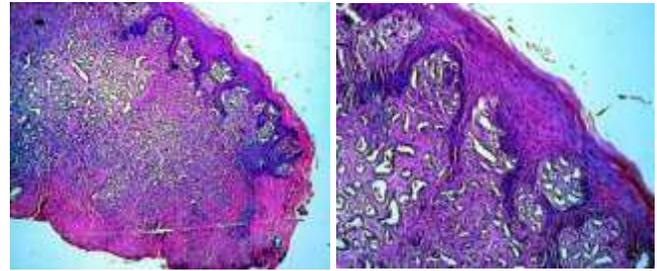


Figure -4:
(4X) H and
E Histopathologic view

Figure -5:
(10X) H and
E Histopathologic view

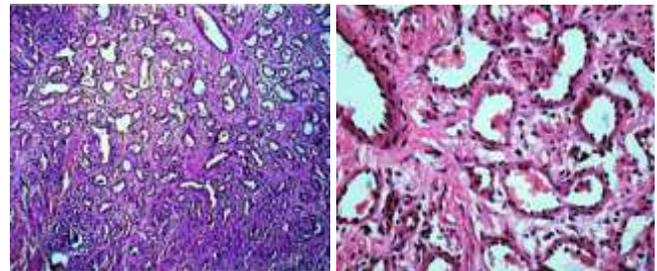


Figure -6:
(10X) H and
E Histopathologic view

Figure -7:
(40X) H and
E Histopathologic view

A follow up of the patient for past 1 year has not shown any recurrence.

Discussion:

Hullihen's description in 1844 was most likely the first pyogenic granuloma reported in English literature, but the term "pyogenic granuloma" or "granuloma pyogenicum" was introduced by Hartzell in 1904. It is a common disease in skin, but extremely rare in gastrointestinal tract except for the oral cavity where it is only found on the keratinized tissue.^{2,5} But our case was found on non-keratinized tissue.

It usually presents as smooth or lobulated red-to-purple mass that may be either pedunculated or sessile. Granuloma varies in size from a few millimetres to several centimetres. Gingiva is the most common site of occurrence. The maxillary facial gingiva (especially in the anterior region) is involved more frequently, in the second decade of

life of young females. These tumors are soft and not tender on palpation. Early lesions bleed easily due to extreme vascularity. On maturation, vascularity decreases and the clinical appearance is more collagenous and pink. If left alone, a number of pyogenic granuloma undergo fibrous maturation and resemble and/or become fibroma.^{2,5,6}

Two histological variants of oral pyogenic granuloma have been described in literature:

- Lobular capillary hemangioma (LCH): It is characterized by proliferating blood vessels organized in lobular aggregates. The lobular area contains a greater number of blood vessels with small luminal diameter.
- Non-lobular capillary hemangioma: This type consists of highly vascular proliferation that resembles granulation tissue. In the central area, a significantly greater number of vessels with perivascular mesenchymal cells non-reactive for α – smooth muscle actin and muscle specific actin is present than in the lobular area of LCH.²

Differential diagnosis of telangiectatic granuloma

includes peripheral giant cell granuloma, peripheral ossifying fibroma, haemangioma, pregnancy tumor, conventional granulation tissue and hyperplastic gingival inflammation.^{2,6,7}

Various treatment modalities have been proposed. Excisional biopsy is the routine procedure of treatment except when the procedure would produce marked deformity. In such cases, incisional biopsy should be performed. Thus the management depends on severity of the lesion. When it is small, painless and free of bleeding, removal of causative irritants should be done along with surgical excision. The excision should extend thoroughly down till the periosteum and adjacent teeth cleaned. Other treatment options like use of Nd: YAG laser, cryosurgery, injection of absolute ethanol, sodium tetradecyl sulfate sclerotherapy and intralesional corticosteroids have also been cited in literature.^{8,9}

Recurrence rate is up to 16%, especially when it is on the gingiva. It may occur due to incomplete excision, incomplete removal of causative factors or re-injury of the area. In such cases, re excision becomes necessary.⁹

REFERENCES

1. Ricardo JH, Alvarez AL, Gomez KR. Oral telangiectatic granuloma. Case series presentation. Rev Fac Odontol Univ Antioq Jan/June 2012;23(2).
2. Jafarzadeh H, Sanatkhani M, Mohtasham N. Oral pyogenic granuloma: A review. J Oral Sci 2006;48:167-75.
3. Kalaivani R, Kumar S, Sivachandran A. Pyogenic granuloma- Clinical case report. Int J Med Biosci 2013;2:44-6.
4. Regezi JA, Sciubba JJ, Jordan RCK 2003. Oral Pathology: Clinical Pathology Consideration. 4th edi, WB Saunders, Philadelphia, 115-6.
5. Neville BW, Damm DD, Allen CM, Bouquot JE (2009) Oral & maxillofacial pathology. 3rd ed, WB Saunders, Philadelphia, 517-8.
6. Venugopal S, Shobha KS, Netravathi TD. Pyogenic Granuloma-A Case Report, J Dent Sci Res 1;1:80-5.
7. Shenoy SS, Dinker AD. Pyogenic Granuloma associated with bone loss in an eight year old child: A case report. J Indian Soc Pedod Prev Dent Dec 06, 201-3.
8. Giblin AV, Clover AJ, Athanassopoulos A, Budny PG. Pyogenic granuloma - The quest for optimum treatment: Audit of treatment of 408 cases. J Plast Reconstr Aesthet Surg 2007;60:1030-5.
9. Chattopadhyay S, Arora R, Agrawal S, Chatterjee S. "Gummy tooth": An unusual presentation of pyogenic granuloma. Annals of dental specialty 2013;1:26-8.