International Journal of Advanced Medicine and Public Health (2026);1(2):12-15
https://doi.org/10.68946/vjp.ijamph.26008

CASE REPORT **SECTION- ENT**

The Vanishing Teeth: An Unusually Large Angiomatous Granuloma of the Posterior Maxillary Alveolus - A Rare Case Report

Meenakshi Srinivasan[1], Sai Sanjana Pasupuleti[2]

[1]Department of ENT, Sree Balaji Medical College & Hospital, Chennai, India
[2]Department of ENT, APS Medical College and Hospital, Chennai, India

Correspondence: Meenakshi Srinivasan, meenusairam69@gmail.com

Received: 11 October 2026/ Accepted: 19 October 2026/ Published Online: 18 November 2026

Abstract

Angiomatous granuloma, commonly referred to as pyogenic granuloma or lobular capillary hemangioma, is a benign reactive vascular proliferation that occurs predominantly in the gingiva. Although frequently encountered in the oral cavity, unusually large lesions involving the posterior maxillary alveolar region may pose a diagnostic challenge. We report the case of a 41-year-old woman who presented with a painless, gradually enlarging gingival growth in the left upper alveolar region for one year, associated with occasional bleeding during tooth brushing. Intraoral examination revealed a large, sessile, lobulated overgrowth involving the buccal aspects of 25, 26 and 27, extending beyond the occlusal plane and producing an unusual appearance suggestive of missing teeth. Orthopantomography demonstrated a soft-tissue swelling in relation to the root stumps of these teeth. Following incisional biopsy, the lesion was surgically excised and histopathological examination confirmed angiomatous granuloma. This case highlights the unusual size, location and clinical appearance of angiomatous granuloma and emphasizes the importance of histopathological confirmation in large alveolar lesions.

Keywords: Angiomatous granuloma, Pyogenic granuloma, Lobular capillary hemangioma, Posterior Maxillary alveolus, Orthopantomography

Introduction

Angiomatous granuloma, more commonly referred to as pyogenic granuloma (PG) or lobular capillary hemangioma, is a benign reactive vascular proliferation that commonly involves the skin and mucosal surfaces. In the oral cavity, it occurs predominantly on the gingiva and represents one of the frequently encountered reactive hyperplastic lesions. Despite its widely accepted name, the term pyogenic granuloma is considered a misnomer because the lesion is neither a true granuloma nor pyogenic. Instead, it is generally regarded as an exaggerated tissue response to local irritation, trauma and other modifying factors [1-3].

The exact pathogenesis of Pyogenic Granuloma remains incompletely understood. Chronic local irritation, trauma, plaque and calculus, foreign materials and hormonal influences have been implicated as possible contributing factors [2,3]. Clinically, oral pyogenic granuloma usually presents as a solitary, exophytic growth that may be sessile or pedunculated. Its surface may be smooth or lobulated, and its color can vary from pink to red or reddish-purple depending on the stage and degree of vascularity. Because of its prominent vascular component, the lesion may bleed readily following minor trauma [4].

The gingiva is the most frequently affected intraoral site, with a recognized predilection for the maxillary gingiva. In a retrospective analysis of 215 cases from a South Indian teaching hospital, Krishnapillai et al. reported a greater frequency of lesions in females and a marked predilection for the maxillary gingiva. Gingival irritation and inflammation associated with poor oral hygiene were among the principal precipitating factors identified in that series [5].

Although PG is predominantly a soft-tissue lesion, unusual cases may be associated with underlying alveolar bone changes. Alveolar bone resorption is considered uncommon in oral PG, and its presence may raise the possibility of an alternative or more aggressive pathology. Lomeli Martinez et al. reported three cases of oral PG associated with alveolar bone loss and emphasized the importance of correlating clinical, radiographic and histopathological findings in such atypical presentations [6].

Quick Response Code for accessing the article online

Website: www.ijamph.com

Case Report

A 41-year-old woman presented to the ENT department with a chief complaints of a gradually enlarging growth in the left upper posterior alveolar region for one year. The lesion was

painless and had progressively increased in size during this period. The patient reported occasional bleeding from the growth while brushing her teeth. There was no history of spontaneous pain or other significant associated symptoms. Extraoral examination revealed no facial asymmetry or visible swelling. Mouth opening was within normal limits, and temporomandibular joint movements were normal bilaterally. There was no clinically evident regional facial deformity attributable to the lesion.

Intraoral examination revealed a large, sessile, smooth, non-ulcerated surface, lobulated gingival growth involving the left posterior maxillary alveolar region. The lesion extended along the buccal aspects of teeth 25, 26 and 27, corresponding to the upper second premolar, first molar and second molar region resulting in partial visual concealment of the teeth and produced an unusual clinical appearance resembling a region of missing teeth as in figure 1. It was soft in consistency and non-tender on palpation.

Figure 1: Pre-op image



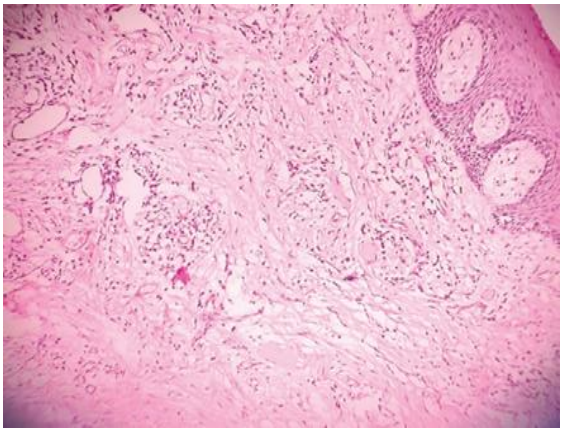
An orthopantomogram (OPG) demonstrated a soft-tissue swelling in relation to the root-stump region of teeth 25, 26 and 27 as in figure 2.

Figure 2: Orthopantomogram (OPG) image



An incisional biopsy was performed and sent for Histopathological examination which demonstrated as Hyperkeratinised stratified squamous epithelium of variable thickness with an area of ulceration replaced by fibro-purulent membrane. The underlying loose fibrous connective tissue stroma shows foci of moderate mixed inflammatory cell infiltrate predominantly neutrophilia, eosinophilia and lymphocytes along with membranous blood vessels as in figure 3, suggestive as Angiomatous granuloma.

Figure 3: Histopathological image



Following confirmation of the diagnosis, complete surgical excision of the lesion was undertaken. The lesion was removed in toto as in figure 4. Post operative image was provided as in figure 5. The postoperative period was uneventful. The patient was followed up at 3-month intervals for maintenance and assessment of possible recurrence. During the 1-year follow-up period, the patient remained asymptomatic, with no evidence of recurrence.

Figure 4: Gross specimen image

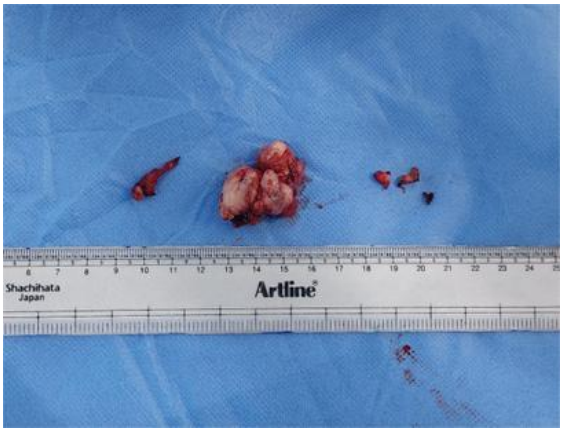


Figure 5: Post-operative image



Discussion

The etiology of oral pyogenic granuloma is multifactorial and is primarily associated with chronic local irritation and trauma, including dental calculus, foreign bodies, repeated gingival injury, and trauma to deciduous teeth. Other contributing factors include aberrant tooth development, occlusal trauma, hormonal influences, immunosuppressive therapy such as cyclosporine, and implant-related irritation due to an improperly selected healing cap. These stimuli may induce the release of inflammatory and angiogenic mediators, resulting in excessive vascular proliferation and connective-tissue growth characteristic of the lesion [1]. Oral pyogenic granulomas can occur across all age groups, ranging from children to older adults. However, they are more commonly observed in females during the second decade of life, which may be attributed to the elevated circulating levels of estrogen and progesterone during this period [7].

Hormonal fluctuations appear to play a significant role in the development of pyogenic granuloma. Gingival enlargement is commonly observed during pregnancy and tends to regress after menopause [8]. Increased angiogenic activity in pyogenic granulomas, particularly during pregnancy, further supports the influence of hormonal changes on lesion development. Hence, lesions occurring during pregnancy are often termed granuloma gravidarum or pregnancy tumor [3].

Although bacteria may be identified on the ulcerated surface, they are considered secondary oral contaminants rather than causative agents. Histologically, the lesion is characterized by prominent capillary proliferation within inflamed granulation tissue, without true pus formation or granulomatous inflammation. Hence, the term is regarded as a misnomer, as the lesion is neither genuinely pyogenic nor a true granuloma [9]. In oral cavity, marginal gingiva is affected more than alveolar part. Besides the gingiva it is also noticed on the lips, tongue or buccal mucosa, affecting the maxilla more than the mandible, the anterior region than the posterior with the buccal surfaces being affected more than the lingual surfaces [10].

Histologically, pyogenic granulomas are classified as the Lobular capillary hemangioma (LCH) and the Non-Lobular capillary hemangioma (Non LCH). LCH type has proliferating blood vessels organized in lobular aggregates, no specific changes such as edema, capillary dilation or inflammatory granulation were noted. Non-LCH type consisted of a vascular core resembling granulation tissue with foci of fibrous tissue [11].

Clinically, pyogenic granuloma may resemble several other gingival and vascular lesions, including peripheral giant cell granuloma, peripheral ossifying fibroma, irritation fibroma, hemangioma and vascular malformations, particularly when the lesion is large or exhibits an atypical morphology [3]. Therefore, lesions with unusual size, location or clinical appearance require careful evaluation to distinguish them from other reactive and neoplastic lesions.

Excision of gingival lesions upto periosteum with scaling is recommended as first line of treatment along with removal of causative irritant. Several alternative treatment modalities are Nd and carbon dioxide lasers, pulsed-dye laser therapy, cryosurgery, electrodessication, sodium tetradecyl sulfate sclerotherapy, and intralesional corticosteroid therapy [12]. This case highlights the unusual size, posterior maxillary location, and atypical clinical appearance of angiomatous granuloma, which may mimic other alveolar lesions. The lesion presented a diagnostic challenge due to its unusual morphology and extent. Histopathological confirmation remains essential for establishing the diagnosis and guiding appropriate management.

Conclusion

Oral pyogenic granuloma may occasionally present with an unusual clinical appearance that can mimic an edentulous or “missing-tooth” region, particularly when a large lesion obscures the underlying teeth. In such atypical presentations, radiographic evaluation with Orthopantomogram is important for assessing the relationship of the lesion to the teeth and underlying alveolar structures. Complete surgical excision and biopsy with regular follow-up essential to monitor for recurrence. This case underscores the importance of integrating clinical, radiographic, and histopathological findings for the accurate diagnosis and effective management of unusual presentations of oral pyogenic granuloma.

Acknowledgements: Nil

Availability of data and materials: The datasets/photographs used and/or analysed during the current study are available from the corresponding author on request.

Authors' Contribution: All authors contributed equally and actively participated in all stages of the study, including study conception and design, data collection, analysis and interpretation of results, and manuscript preparation and revision. All authors critically reviewed the manuscript for important intellectual content, read and approved the final version of the manuscript, and agreed to be accountable for all aspects of the work.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

Ethical Approval: Informed consent was obtained from the patient for participation in this case report

Consent for publication: Informed consent was obtained from the patient for the publication of this case report and accompanying images.

Competing interests: The authors declare that they have no competing interests.

Copyright: © The Author(s). 2026. This is an open-access article distributed under the terms of the Creative Commons

Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

References

1. Gomes SR, Shakir QJ, Thaker PV, Tavadia JK. Pyogenic granuloma of the gingiva: A misnomer?–A case report and review of literature. Journal of indian society of periodontology. 2013 Jul;17(4):514.
2. Kamal R, Dahiya P, Puri A. Oral pyogenic granuloma: Various concepts of etiopathogenesis. Journal of oral and maxillofacial pathology: JOMFP. 2012 Jan;16(1):79.
3. Jafarzadeh H, Sanatkhani M, Mohtasham N. Oral pyogenic granuloma: a review. Journal of oral science. 2006;48(4):167-75.
4. Epivatianos A, Antoniades D, Zaraboukas T, Zairi E, Poulopoulos A, Kiziridou A, Iordanidis S. Pyogenic granuloma of the oral cavity: comparative study of its clinicopathological and immunohistochemical features. Pathology international. 2005 Jul;55(7):391-7.
5. Krishnapillai R, Punnoose K, Angadi PV, Koneru A. Oral pyogenic granuloma—a review of 215 cases in a South Indian Teaching Hospital, Karnataka, over a period of 20 years. Oral and maxillofacial surgery. 2012 Sep;16(3):305-9.
6. Martínez SM, Morando DB, González AE, Sandoval JR. Unusual clinical presentation of oral pyogenic granuloma with severe alveolar bone loss: A case report and review of literature. World Journal of Clinical Cases. 2023 Jun 6;11(16):3907.
7. Ojanotko-Harri AO, Harri MP, Hurttia HM, Sewoón LA. Altered tissue metabolism of progesterone in pregnancy gingivitis and granuloma. Journal of clinical periodontology. 1991 Apr;18(4):262-6.
8. AGHA HF, TIR GF, Shaigan S. Immunohistochemical analysis of estrogen and progesterone receptor expression in gingival lesions.
9. SN B. Pyogenic granuloma-clinical features, incidence, history, and result of treatment: Report of 242 cases. J Oral surg. 1966;24:391-8.
10. Vilmann A, Vilmann P, Vilmann H. Pyogenic granuloma: evaluation of oral conditions. British journal of oral and Maxillofacial surgery. 1986 Oct 1;24(5):376-82.
11. Mills SE, Cooper PH, Fechner RE. Lobular capillary hemangioma: The underlying lesion of pyogenic granulomaA study of 73 cases from the oral and nasal mucous membranes. American Journal of Surgical Pathology. 1980 Oct;4(5):471-80.
12. Parisi E, Glick PH, Glick M. Recurrent intraoral pyogenic granuloma with satellitosis treated with corticosteroids. Oral diseases. 2006 Jan;12(1):70-2.