



CASE REPORT

UNCOMMON LOCATION OF ORAL TELANGIECTATIC GRANULOMA – CASE REPORT

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ABSTRACT

Introduction: The aim of the study is to describe an uncommon location of Telangiectatic Granuloma with intra bony defect. Etiology of the it has been associated with chronic irritation, trauma. Synergistic effects seen with presence of plaque, calculus, regular use of orthodontic appliances, iatrogenic factors is also attributed. The Telangiectic granuloma is most frequently located in the vestibular gingiva of the maxillary anterior region. This article presents with the clinicopathologic findings of a male patient, with a chief complaint of spontaneous bleeding from a gingival overgrowth. An excisional biopsy was taken and sent for histopathologic evaluation. It revealed numerous small newly forming bloodvascular channels to multiple large blood filled endothelium lined blood vascular channels. There was presence of diffuse areas of chronic inflammatory cell infiltrate and areas of haemorrhage. **Clinical Significance:** OTG appear to have a female predilection and are commonly seen as red tumorous lesions affecting the vestibular gingiva of the maxillary anterior segment (Jafarzadeh *et al.*, 2016). The case presented is of a male patient, 19 years old, with OTG in mandibular anterior region with intra bony defect.

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INTRODUCTION

The oral telangiectatic granuloma (OTG), formerly called pyogenic granuloma, is a benign inflammatory hyperplastic lesion that affects the skin and the oral mucosa (Patil *et al.*, 2006). It presents as a local response to trauma or chronic irritation. OTGs may occur in any age group. In the oral cavity it appears as a fast growing, red tumor with spontaneous bleeding. It also frequently be seen of gingiva, oral mucosa, lips and tongue (Al-Zayer, 2001) Earlier, these lesions were synonymous with "pyogenic granulomas." However, this term has been found to be a misnomer as it does not adequately reflect the characteristics of this lesion, that is, it does not contain pus and is not, strictly speaking, a true granuloma (Regezi *et al.*, 2003) OTG was formerly described as "human botryomycosis" but the typical arrangement of globules is not seen in OTG. The term telangiectatic granulomas are attributed to its histological appearance which comprises of typical granulation tissue with inflammatory cell infiltrates and a characteristic sub epithelial proliferation of small thin-walled blood vessels in the loose connective tissue (Ricardo *et al.*, 2012). This case report describes the clinical and histological appearance as well as the management of an OTG associated with chronic irritation in lower anterior region.

Case report: A 19 year old male patient, reported to government dental college and hospital, Mumbai, with a chief complaint of gingival growth which was painless and gradually increased in size (Fig 1). The subject had difficulty in mastication, with considerable problems of food lodgement and aesthetics. The symptoms mainly concerned of bleeding and indirect effects to functional capabilities. There was no relevant medical history presented. The patient had no hospitalisation for any systemic disease. Patient gave history of trauma from tooth brush bristles. He did not give any history of any detrimental habits. There was difficulty in mastication and speech. The intra oral examination revealed a solitary, pedunculated swelling with well defined margins in 41, 42, 43 tooth region which measured 2.5 x 2 cm in size, extending from the lingual papilla to the buccal vestibule between 42 and 43 (Fig 2, Fig 4). It was soft and oedematous with reddish appearance. The surface of the lesion appeared to be smooth and the growth was pedunculated. There was spontaneous bleeding of probing. Pockets of 6-7mm depth were seen in 42, 43 region.

The provisional diagnosis was Pyogenic Granuloma: IOPA was advised and showed an angular bone loss (Fig 9). An excisional biopsy was planned and patient was explained about the surgical procedure. A written consent was obtained. In phase 1 therapy, thorough scaling and root planning was done and oral hygiene instructions were given.

The lesion was excised with a 12 number surgical blade and sutures were given and a periodontal dressing was placed (Fig 5, Fig 6). Patient was recalled after 1 week for suture removal (Fig 7). Patient was given post surgical instructions and was prescribed with capsule amoxicillin 500mg TDS and tablet Diclomol for 5 days.



Figure 1. Pre-operative image



Figure 2. Occlusal view of the growth



Figure 3. Surface characteristics



Figure 4. Excised growth



Figure 5. Post-operative sutures



Figure 6. Post-operative pack

Specimen was sent for histopathological evaluation: Microscopic features revealed epithelium, connective tissue stroma and haemorrhagic areas (Fig 8). Low power view showed proliferative parakeratinised stratified squamous epithelium with eosinophilic bodies present in superficial epithelial layer.



Figure 7. Review and maintainance

Underlying connective tissue is loose fibro cellular consisting of thin to thick collagen fibres interspersed with fibroblast. Numerous small newly forming blood vascular channels to multiple large blood filled endothelium lined blood vascular channels are seen. Diffuse area of chronic inflammatory cell infiltrate are seen in the form of lymphocytes and plasma cells. Areas of haemorrhage also present. Overall features were suggestive of “Telangiectatic Granuloma”

DISCUSSION

Telangiectatic granuloma is described as a localized reactive lesion caused by a given stimulus that produces excessive connective tissue; it is frequently found in the oral cavity, usually affecting areas such as gingiva, lips, and alveolar mucosa (Jafarzadeh *et al.*, 2006). The case presented here is an unique combination of a male patient with an unusual location in the lower anterior region. There are many cases of Pyogenic Granuloma described in literature, but few with the diagnosis of OTG have been confirmed. Various etiological factors such as local irritants like dental plaque and calculus, chronic trauma, foreign bodies in the tissues, overhanging margins of the crowns have been described in the literature. The probable etiologic factor in this case maybe chronic irritation, trauma, plaque and calculus

In a retrospective study conducted by Gordon *et al.* (2010) a Brazilian population that included 293 cases of oral pyogenic granuloma showed a higher prevalence in women, with a 2.38:1 ratio. The most frequent target was the gingiva (83%), most cases were asymptomatic and presented spontaneous bleeding. The lesions were described as having a red surface (73.2%), soft consistency (62.3%), and a pedicular base (61.1%); the average lesion size was 1.3 cm (Gordón-Núñez, 2010). Telangiectatic granuloma was formerly described under the heading "human botryomycosis" by Poncet and Dor, who first described these little granulomata in man and claimed to have found the typical cocci (1879). Already in 1899, however, Sabrazes and Laubie denied a relation with botryomycosis and created the name telangiectatic granuloma. The staphylococci are chiefly found on the surface and not in the typical arrangement in globules. The lesion in our case, had a typical reddish appearance with bleeding on slight provocation. it was non-tender, soft to firm in consistency, with blanching on pressure. Pathological drifting of teeth was present. Grade 2 mobility of teeth present in 42. Bone loss has been reported infrequently in association with such lesions, however in our case angular bone defect was detected in the distal aspect of 42 and mesial aspect of 43 (Shenoy *et al.*, 2006; Sulabha *et al.*,

2012; Goodman-Topper, 1994; Saikhedkar, 2011; Panseriya, 2011; Singh, 2009). The pressure from the granuloma and local irritants could be responsible for bone resorption and subsequent development of an intrabony defect. In the presence of bone loss with such a lesion, a differential diagnosis of giant cell granuloma, metastatic tumor, peripheral ossifying fibroma, and Kaposi's sarcoma was considered. However, the histopathological report, which is the gold standard for making the diagnosis of such lesions, confirmed a diagnosis of telangiectatic granuloma (Regezi *et al.*, 2003). The patient had a follow up appointment after 6 months and showed good healing and no recurrence. The initial treatment seeks to intercept and eliminate the local etiologic factor that is associated to OTB and to perform plaque control, removal of faulty restorations, and elimination of periodontal pockets. After these initial treatment steps, decrease in lesion size may be observed. Among the treatment alternatives, the use of CO₂ laser, cryosurgery and the application of acidic substances have been used in recent years. Such substances produce precipitation and protein denaturation of the microorganisms involved in the pathology. But the most effective therapy is surgical removal reaching the periosteum and removing the entire base of the lesion, with root planing and dental extractions if needed (Zarei *et al.*, 2007; Giblin *et al.*, 2007; Kirschner, 1999)

Conclusion

Telangiectatic granuloma is clinically, a rather sharply marked off, not uncommon variety of granuloma in man. The aetiology is not sufficiently clear and the clinical presentation is also vague. Histopathological evaluation is the key to accurate diagnosis of OTG and remains the gold standard. The earlier the condition is diagnosed, better will be the prognosis and will be beneficial for the overall treatment of the patient.

Clinical Significance: No lesion should be under estimated. Histopathological evaluation is of utmost importance. This case highlights the unusual sex predilection and unusual location of OTG. Thereby marking the importance of histologic evaluation for accurate diagnosis.

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