A Case of Recurrent Pyogenic Granuloma of Gingiva

ABSTRACT
A case of pyogenic granuloma of gingiva is presented. Aetiology factors, clinical presentations and different treatment modalities are discussed after reviewing the literature.

KEYWORDS: Pyogenic granuloma, Gingival hyperplasia, Peripheral giant cell granuloma, peripheral ossifying fibroma, lobular capillary haemangioma

Clinical Presentation
A 23 year old lady was referred from her Family physician for an examination and opinion. She presented with a non-healing symptomatic gingival growth located on her left upper gingiva between later incisor and canine.

She was asymptomatic and started feeling pain, bleeding and upper gingival growth after she went to the dental hygienist for dental cleaning. She had trauma to her left anterior upper gingiva. She was treated by her dentist for infection and herpes and part of growth was cauterized as there was bleeding. Unfortunately the growth kept on bleeding, growing with pain (Figure 1).

After determining that the growth was most likely benign, she was conservatively treated with oral and local steroid gel and steroid mouthwash and the patient was seen again four weeks later.

The patient was extremely pleased with the outcome of the conservative management for her gingival emergency and there was neither pain nor haemorrhage after the treatment. The growth became markedly reduced in size (Figure 2). She was advised to come back if there is any recurrence.
Discussion

Pyogenic granuloma is a common benign lesion consisting of exuberant granulation tissue, presenting intraorally usually as a reddened solitary soft swelling on gingiva. They tend to bleed because they contain a very large number of blood vessels. They are also known as lobular capillary hemangiomas. Differential diagnosis includes Peripheral Giant Cell Granuloma when there are multinucleated giant cells with a background of mononuclear stromal cells and extravasated red blood cells with or without bone resorption and Peripheral Ossifying Fibroma when there is combination of bone resorption and replaced by fibrous tissue. These overgrowths are due to irritation, physical trauma, or hormonal factors.

Pathogenesis

Exact cause is not known. Irritation, trauma, dental implants, hormonal influences and viral oncogenes are initiating factors for a few cases. Pyogenic granuloma is a misnomer as there is no pus seen. Exophytic masses covered by fibro purulent membrane, surface is covered by keratinised epithelium with connective tissue containing lobular arranged blood vessels in the center and well formed capillaries seen in periphery, there is microscopic arteriovenous malformations. Cluster of polymorhonuclear leucocyte present in granulation tissue adjacent to necrotic or ulcerated surface in some there is gingival hyperplasia.

Clinical Presentation

A pyogenic granuloma starts off as a lesion with a rapid growth period that usually lasts a few weeks. It then becomes a raised reddish or yellowish nodule that is typically smaller than 2 centimeters. The growth can appear smooth or it might have a crusty or rough surface particularly if it bleeds a lot.

When they occur in pregnant women, they usually grow on the gums and are called “pregnancy

Figure 1: Showing left upper gingival growth with haemorrhage

Figure 2: Clearing of haemorrhage and reduction of gingival growth
Pyogenic Granuloma of the Gingiva

Gross Appearance of Pyogenic Granuloma Lesions

- Mild
- Moderate
- Severe

Histological Appearance

- Lobular arrangement of capillaries in granulation tissue
- Stratified squamous epithelium
tumors.” These growths mainly affect children and young adults, although they can develop in people of all ages.2

**Treatment**

Small lesions could be treated conservatively with improving oral hygiene, eliminating factors that cause irritation, local and systemic steroids. In some cases intralesional injection of steroid which reduces the inflammation and capillary endothelial proliferation. In some cases cryotherapy and sodium tetradecyl sulphate and ethanol intralesional sclerotherapy has been tried. When present during pregnancy spontaneous resolution will take place after pregnancy is over.6–7

They’re benign (noncancerous) and can be safely removed (gingivectomy) through various methods (surgical excision, electrocautery and laser resection).4 Excision should be complete and if the bone is involved due to chronicity till the periosteum, the periosteum of the bone should be removed and in a few cases grafting may be necessary.2

**Complications**

Possible complications after removal include pain, bleeding and recurrence.

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**SUMMARY OF KEY POINTS**

<table>
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<tr>
<th>Pyogenic granuloma is a benign tumour.</th>
<th>These lesion appear like yellow or red nodules and when haemorrhagic appear in lobulated capillaries with granulation tissue.</th>
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<tr>
<td>They can appear in any age group and in any sites.</td>
<td>Conservative line of treatment is in the early stages. Excision using surgical, electric cautery or laser is chosen in bigger lesion.</td>
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<td>When appear in gingiva are caused by irritation, trauma, dental implant, hormonal influence and viral oncogenes.</td>
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**CLINICAL PEARLS**

Pyogenic granuloma of gingiva are benign growths, but if not recognised and treated early they can cause bleeding, pain and recurrence.
Conclusion

We have presented a case of pyogenic granuloma of gingiva, treated conservatively with steroid. We have advised the patient to go to her dentist for a referral to a periodontist for any recurrence.

Dr. Pradeep Shenoy takes full responsibility for the integrity of the content of this paper.

Competing interest none declared.

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References