



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.³ 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 resorption⁵ 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.¹

Pathogenesis

Exact cause is not known. Irritation, trauma, dental implants, hormonal influences and viral oncogenes¹ are initiating factors for a few cases. Pyogenic granuloma is a misnomer as there is no pus seen.⁶ 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 arterio-venous malformations.² Cluster of

Figure 1: Showing left upper gingival growth with haemorrhage



polymorphonuclear leucocyte present in granulation tissue adjacent to necrotic or ulcerated surface in some there is gingival hyperplasia.¹

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.⁷

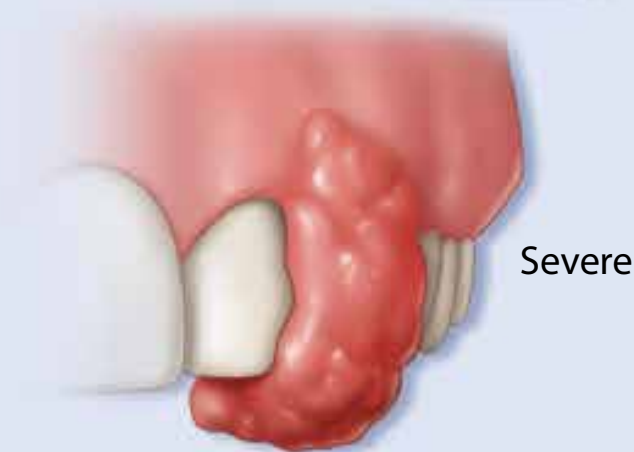
When they occur in pregnant women, they usually grow on the gums and are called “pregnancy

Figure 2: Clearing of haemorrhage and reduction of gingival growth



Pyogenic Granuloma of the Gingiva

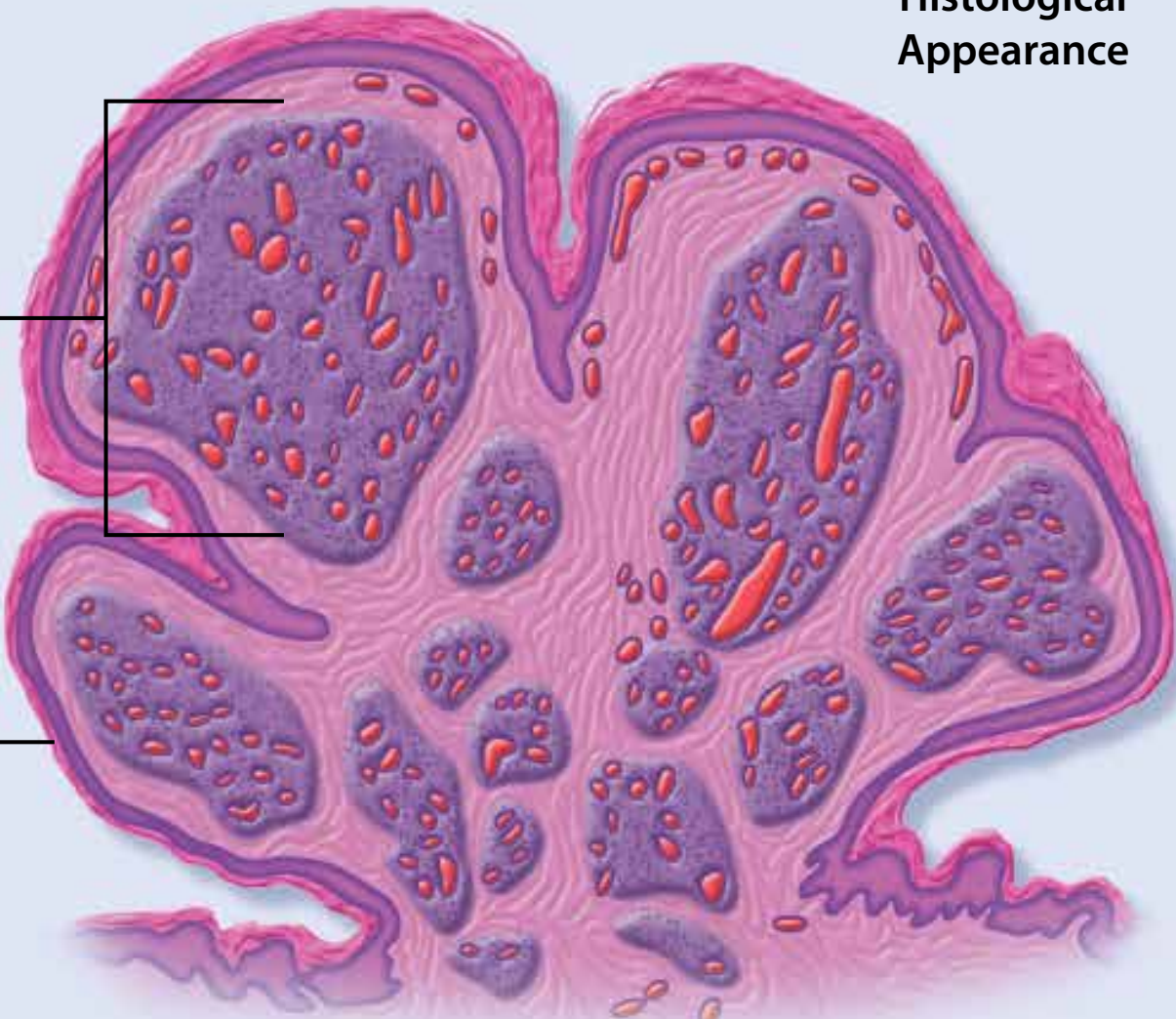
Gross Appearance of
Pyogenic Granuloma
Lesions



Histological
Appearance

Lobular arrangement
of capillaries in
granulation tissue

Stratified
squamous
epithelium





SUMMARY OF KEY POINTS

Pyogenic granuloma is a benign tumour.

They can appear in any age group and in any sites.

When appear in gingiva are caused by irritation, trauma, dental implant, hormonal influence and viral oncogenes.

These lesion appear like yellow or red nodules and when haemorrhagic appear in lobulated capillaries with granulation tissue.

Conservative line of treatment is in the early stages. Excision using surgical, electric cautery or laser is chosen in bigger lesion.

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, electro cautery 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.



CLINICAL PEARLS

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



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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.*

Acknowledgement

The author would like to thank Ms. France Carrier who helped in the literature search.

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