CASE REPORT

Intralesional injection of triamcinolone acetonide for treatment of pyogenic granuloma

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ABSTRACT

Pyogenic granuloma appears in the mouth as an overgrowth of tissue due to irritation, physical trauma or hormonal factors. The term, pyogenic granuloma is misleading because it is not a true granuloma. In actuality, it is a capillary hemangioma of lobular subtype which is the reason they are often quite prone to bleeding. The growth is typically seen in young adults, it may occur in any age, especially in individuals with poor oral hygiene. Females are far more susceptible than males because of the hormonal changes that occur in women during puberty, pregnancy and menopause. The purpose of this article is to describe a case of pyogenic granuloma successfully treated by intralesional injection of triamcinolone acetonide.

KEYWORDS: Pyogenic granuloma, Intralesional triamcinolone acetonide.

INTRODUCTION

Pyogenic granuloma is a relatively common benign mucocutaneous lesion. The term is a misnomer as the lesion neither contains pus nor it is granulomatous. It was originally described in 1897 by two French surgeons, Poncet and Dor. It is considered as a capillary haemangioma of lobular subtype as suggested by Mills, Cooper, and Fechner, which is the reason they are often quite prone to bleeding. The most common intraoral site is marginal gingiva, but lesions have been reported on palate, buccal mucosa, tongue, and lips. Extraoral sites commonly involve the skin of face, neck, upper and lower extremities, and mucous membrane of nose and eyelids.

Being a non-neoplastic growth, excisional therapy is the treatment of choice but some alternative approaches such as cryosurgery, excision by Nd: YAG Laser, flash lamp pulsed dye laser, injection of corticosteroid or ethanol, and sodium tetradecyl sulfate sclerotherapy have been reported to be effective. In this report, we seek to highlight the therapeutic success achieved with intralesional triamcinolone acetonide injection in the treatment of pyogenic granuloma.

CASE REPORT

A 23-year-old male patient reported to the Out Patient Department of Dermatology and Venereology in Community Based Medical college Hospital, Bangladesh. He complained of localized red growth on right angle of mouth for 3 months. The outgrowing mass was not painful but often bled on scratching, or sometimes spontaneously. There was no history of trauma or drug intake.

Physical examination revealed an oval-shaped mass-like growth seen on right angle of mouth, measuring approximately 0.5cm in diameter. On
palpation, the mass was soft to firm in consistency and readily bled on probing. No exacerbating factors were identified. Based on the clinical findings the case was provisionally diagnosed as pyogenic granuloma.

The lesion was treated by intralesional injection of triamcinolone acetonide 15mg/ml mixed with adrenaline, once every 3 weeks for 4 times. Patient was not prescribed any antibiotics, analgesics, or anti-inflammatory medication. He visited every 3 weeks interval for injection. The lesion gradually decreased in size and after fourth visit the lesion cured about 90%.

**Fig. 1** Pyogenic granuloma before therapy.

**Fig. 2** Lesion after therapy.

**DISCUSSION**

Although pyogenic granuloma may appear at any age, 60% cases are observed between the ages of 10 and 40; incidence peaks during the third decade of life and women are twice as likely to be affected. It is more common in children and young adults.

The clinical presentation is generally of a dull red, sessile, or pedunculated smooth surfaced nodule that may easily bleed, crust, or ulcerate. Lesions may grow rapidly, reach its maximum size, and remain static. They may typically begin as small, red papules that rapidly enlarge to become pedunculated raspberry-like nodule. Rarely, patient may develop multiple satellite angiomatous lesions after excision of a solitary pyogenic granuloma.

Oral pyogenic granulomas shows a striking predilection for the gingiva, which accounts for 75% of all cases. Gingival irritation and inflammation that result from poor oral hygiene may be a precipitating factor in many patients. The lip, tongue, and buccal mucosa are the next most common sites.

In majority of cases, minor trauma and/or chronic irritation are cited in the etiopathogenesis of pyogenic granuloma. Infection may play a role with suggestions of agents such as streptococci and staphylococci. Recently, angiopoietin-1,2 and ephrin B2 agents in other vascular tumours such as *Bartonella henselae*, *B. quintana*, and *human herpes virus 8* have been postulated to play a part in recurrent pyogenic granuloma. Multiple pyogenic granulomas with satellite lesions may occur as a complication of tumour removal or trauma.

Viral oncogenes, hormonal influences, microscopic arteriovenous malformation along with inclusion bodies and gene depression in fibroblasts have all been implicated.

Differential diagnosis of pyogenic granuloma includes haemangioma, peripheral giant cell granuloma, peripheral ossifying fibroma and metastatic carcinoma, and amelanotic melanoma.

Although the conventional treatment for pyogenic
granuloma is surgical excision, a recurrence rate of 16% has been reported\textsuperscript{14}. There are also reports of the lesion being eliminated with electric scalpel or cryosurgery\textsuperscript{15}. Other methods used by various workers include cauterization with silver nitrate, sclerotherapy with sodium tetra decyl sulfate and monoethanolamine oleate\textsuperscript{16}, ligation, absolute ethanol injection dye\textsuperscript{17}, Nd:YAG and CO\textsubscript{2} laser\textsuperscript{18}, shave excision, and laser photoacoagulation\textsuperscript{19}. White et al proposed that laser excision is well tolerated by patients with no adverse effects. They also stated that CO\textsubscript{2} and Nd: YAG Laser irradiation is successful in surgical treatment.\textsuperscript{1} Meffert et al used the flash lamp pulsed dye laser on a mass of granulation tissue and concluded that previously resolute tissue responded well to the series of treatments with pulsed dye laser\textsuperscript{1}. Diode laser has shown excellent results in cutaneous pyogenic granulomas with only minimal pigmentary and textural complications. Gonzales et al\textsuperscript{21} demonstrated both symptomatic and clinical clearing of the lesions with excellent cosmetic results in 16 of 18 treated patients. One option of treatment is intralesional steroid. We achieved near about complete resolution of the lesion located on the right angle of mouth with intralesional injection of triamcinolone acetonide without producing any complications.

CONCLUSION

Intralesional steroid injection therapy is easy and safe. It may be tried as a 1\textsuperscript{st} line management of pyogenic granuloma.

REFERENCES

16. Gupta R, Gupta S. Cryo-therapy in granuloma pyogeni-