ejpmr, 2022, 9(8), 604-606

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

PYOGENIC GRANULOMA OF GINGIVA – A CASE REPORT OF 1 YEAR FOLLOW UP

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Article Received on 21/06/2022 **Article Revised on 11/07/2022** **Article Accepted on 01/07/2022**

ABSTRACT

Pyogenic granuloma was proliferative, non-neoplastic lesion constitute to a group of relatively common pathological entities in the oral cavity. A swelling in the left maxillary anterior region of a 26-year-old male patient with no radiographic abnormalities. Lesion was excised with diode laser using an initiated tip in continuous mode. The histopathological suggestive was given as inflamatory hyperplasia.concluded that Diagnosis of pyogenic granuloma should be made with proper history and clinical feature, and removal of etiological factors contributing for inflammation is a primary treatment choice followed by surgical excision. Excision of should be aimed to preserve and improving the mucogingival complex. In this case excision of pyogenic granuloma by using diode laser to minimize discomfort during and after surgery.

KEYWORDS Pyogenic granuloma, Lobular capillary haemangioma Excision, Diode laser, Misnomer.

INTRODUCTION

Pyogenic granuloma was proliferative, non-neoplastic lesion constitute to a group of relatively common pathological entities in the oral cavity.[1] Other terms for pyogenic granuloma are lobular capillary haemangioma, eruptive haemangioma, granuloma pyogenicum, granulation tissue-type haemangioma, granuloma gravidarum, pregnancy tumour or tumour of pregnancy.[2] "Pyogenic granuloma" is a misnomer term because the absence of pus in the lesion and not a granuloma. Most common etiology of pyogenic granuloma are trauma and poor maintenance of oral hygiene other precipitating factors are low-grade local irritation, or certain drugs like Systemic and topical retinoids, cetuximab, cyclosporine and panitumumab - Monoclonal antibodies against the Epidermal growth factor receptor (EGFR) precipitate the hyperplastic response.[3] Most often clinically it presents as a painless, asymptomatic, pedunculated, or sessile mass of gingiva. Histological finding provides a definitive diagnosis. Differential diagnosis for pyogenic granuloma are amelanotic melanoma, squamous cell carcinoma, basal cell carcinoma, angiosarcoma, benign lesions – Hemangiomas, Irritated melanocytic nevi, Spitz nevus, Warts, An acquired digital fibrokeratoma, Granulation tissue from minor trauma or scratching, Glomus tumor, Angiolymphoid hyperplasia with eosinophilia. In this article, we have described a case report of pyogenic granuloma in upper left quadrant.

CASE REPORT

Clinical presentation

A 26 years old male patient referred to us with a chief complaint of overgrowth in gingiva on left upper front tooth region for past 1year. Patient gives history of painless, gradual, slow growing swelling. No relevant medical history. Past dental history reveals that patient had underwent scaling before 1years.

Extraoral examination reveals symmetrical face, straight facial profile, competent lips, no palpable lymphnode.

Gingival examination reveals erythematous marginal gingiva and interdental papilla, Rolledout margins in relation to 23,22, position of marginal gingiva wascoronal to CEJ. Consistency was irm marginal and interdental papilla in relation to 23,22. Bulbous interdental papilla in relation to 23,22. Generalised bleeding on probing present, adequate width of attached gingiva.

Examination of swelling – swelling is located in maxillary anterior region on left side mesial interdental papilla of 23, with size of 6mm width, 6mm length, and 3mm depth; spherical shape, irregular surface, erythematous colour, non tender, non fluctuant, compressible sessile swelling [figure 1].

Radiographic examination reveals no visible abnormalities, no bone loss and the alveolar bone in the region of the growth appeared normal [figure 2].

Normal value of routine hemogram.

A provisional diagnosis for this case was made as pyogenic granuloma.

The differential diagnosis included peripheral ossifying fibroma, peripheral giant cell granuloma and fibroma.

Treatment

For this patient excisional biopsy using diode laser of 980nm was planned. Area are anesthetised using local anesthesia containing 2% liginocain with adrenalin 1:80000 was used for supra periosteal infiltration technique and greater palatine block. Once the area anesthetised lesion was excised with diode laser using an initiated tip in continuous mode with 1 W setting and to prevent lesion recurrence it was important to ensure complete removal of lesion by trimming soft tissue remnants adjacent to the tooth. Intraoperatively, there was mild bleeding from the lesion [figure 3]. The excised tissue was sent for histopathologic examination.

FIGURES

Figure 1: Preoperative photograph.

Figure 2: Preoperative radiograph.

Figure 3: Excision of pyogenic granuloma with diode laser.

Figure 4: Postoperative photograph.

HISTOPATHOLOGIC EXAMINATION

The given H and E staine section shows parakeratinized epithelium with acanthosis. The connective tissue shows a diffuse infiltration of chronic inflammatory cells associated with small capillaries. Presence of dense collagenous area with slender fibrocytes interspersed with areas of hyalinization are also evident. The histopathological suggestive was given as inflamatory hyperplasia.

DISCUSSION

Pyogenic granuloma is one of the most prevalent entity of oral cavity, age of prevalence between the second to the fourth decade of life[4], with predominance in gingiva and other location like skin, lips, tongue, jugal mucosa and palate may also get affect.[5]

Incidence rate of Pyogenic Granuloma was found to be in range of 26.8-32% among all other reactive oral lesions. Clinically, lesions are found as a single nodule or unpedunculated papule and surface as smooth or lobulated with varying dimension of mm to some cm, clinically painless, asymptomatic slow progression lesion but in some case can also show a rapid progression.[6] In our case, it has been painless slow, painless, asymptomatic, gradual growing over 1year in interdental papilla in relation to 23.

The most appropriate treatment of choice are removal of causative factor and excisional biopsy. Rai *et al*. used

diode laser with specification of 808nm (±10) wavelength, energy of 0.1–7.0 W and 300 VA input energy for excision of pyogenic granuloma as it is less invasive, less bleeding and no sutures required compared to conventional excision.[7] with added advantage of rapid healing, decrease need for postsurgical dressings, reduce postoperative pain by depolarizing nerves, decrease infection occurrence by destroying colonies of many bacteria and viral colonies, reduce postoperative edema, discomfort, shrinkage and scarring.[8] At 1year post operatively reported less post operative pain, discomfort in surgical site with no scaring, good color match of gingiva with adjacent site and contour of gingiva was maintained [figure4].

CONCLUSION

Diagnosis of pyogenic granuloma should be made with proper history and clinical feature, and removal of etiological factors contributing for inflamation is a primary treatment choice followed by surgical excision. Excision of should be aimed to preserve and improving the mucogingival complex. In this case excision of pyogenic granuloma by using diode laser to minimize discomfort during and after surgery.

ACKNOWLEDGEMENT

I thank my parents and friends for their support.

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