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Surgical management of geriatric patient with epulis fissuratum: A case report

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Abstract
Epulis fissuratum is a tissue overgrowth on vestibular alveolar mucosa secondary to trauma of ill-fitting denture flanges, otherwise called granuloma fissuratum or denture induced hyperplasia. With an epidemiological incidence of 4.1 per 1000 persons in people above 35years of age it often hinders phonetics, aesthetics and mastication. We have reported surgical management of Epulis fissuratum in a geriatric patient with a brief review of literature.

Keywords: denture; Epulis fissuratum; hyperplasia; mucosa; rehabilitation

Introduction

Epulis fissuratum is a benign fibrous connective tissue overgrowth occurring in oral cavity often secondary to trauma of ill-fitting denture and commonly seen in geriatric patients. [1] It is a type of inflammatory tissue over growth to stimulus like in pyogenic granuloma, fibroma. It is believed that, due to phonetics, masticatory hindrances and unstable denture induced hyperplasia need to be treated significantly. It is believed to affect phonetics, causing masticatory hindrances and unstable denture induced hyperplasia which often arises need to be treated significantly to overcome. Presence of additional comorbidities in geriatric patients can be relatively challenging in surgical management. [2]We have reported a case of a geriatric patient with Epulis fissuratum with a brief review of literature.

Case Report

A 62 year old female patient was referred to department of Oral and Maxillofacial Surgery with chief complaint of an ill-fitting upper denture secondary to abnormal growth in the upper anterior region. Patient gave history of been a denture wearer since 3 years and have noted growth around the borders of upper denture which gradually enlarged in size over 7 months. She mentioned of associated pain and discomfort on chewing food since 2 months. Medical history was noncontributory. On local examination, completely edentulous upper and lower arch with a linear fibrous mass resembling the denture flange in the upper labial vestibule was noted [Figure 1]. Bilaterally growth approximately 3x5 cm in size was noted extending superiorly to labial mucosa and inferiorly to alveolar ridge. The growth was reddish pink in color, soft in consistency and smooth texture with no associated surface ulcerations.

Based on the history and clinical examination differential diagnosis of irritational fibroma and pyogenic granuloma were made. Informed consent was obtained for excision of growth under local anesthesia. With working diagnosis of Epulis fissuratum and under aseptic conditions bilateral infraorbital nerve block was administered using lignocaine hydrochloride with 1:80000 adrenaline. Incision was placed around the growth with a scalpel, blunt dissection was carried out and the growth was excised in total [Figure 2]. Specimen was sent for histopathological examination, revealed parakeratinized stratified squamous epithelium with underlying connective tissue made up of collagen fiber bundles and endothelial cell lined blood vessels with chronic inflammatory cell infiltration confirmatory of Epulis fissuratum [Figure 3]. After attaining adequate hemostasis closure was done [Figure 4]. Follow up period was uneventful and no new growth. Prior relined denture base was used as an interim splint during healing phase followed by fabrication of new denture base in staged manner after adequate healing.

Fig 1: Pre-operative clinical picture of overgrowth over anterior maxilla

Fig 2: Excised specimen using scalpel

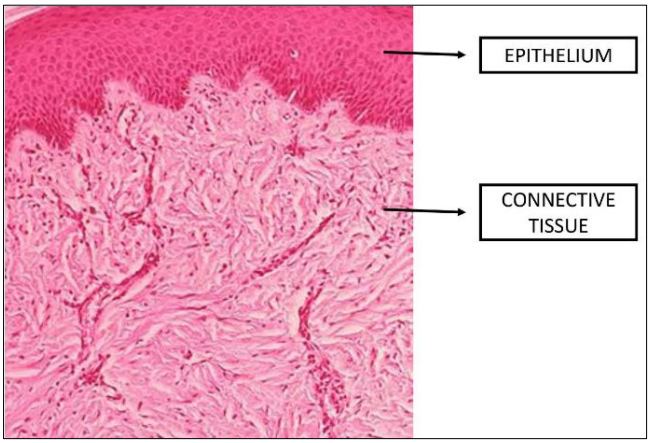

Fig 3: Histopathological image of 40X magnification

Fig 4: Healing at 1 week post-operative with sutures insitu

Discussion

In 1864, Virchoff invented the word "epulis", which means "over the gum" [1] with irritation and chronic trauma are being principal causes for the appearance of Epulis. It appears as a form of folds, with normal or erythematous mucosa and raised sessile lesion. It often consists of a smooth surface and may also be associated with ulceration due to continuous or chronic irritations [3].

Epulis fissuratum is a type of inflammatory hyperplasia usually due to ill-fitting dentures and poor denture hygiene [3]. When the denture is unstable unnecessary movements of denture give rise to trauma to soft tissues, particularly in non-keratinized mucosa of oral cavity [4]. It is commonly seen in post- menopausal women and uncontrolled diabetics. Growth is most likely to be seen in vestibular sulcus or palate where the denture flanges touch the oral mucosa and it could be ulcerated or grooved to which the denture flange fits. On the facial aspect of dental flange, exophytic soft tissue growth resembling dental flange, which mimics tumor [1, 3] is noted which prominently hinders patient's comfort, phonetics and mastication with treating as early as possible would help to boost patient's quality of life[3]. Surgical excision is being the best treatment option when there is significant fibrosis of hyperplastic tissue present. Excision can be performed by conventional scalpel, electrosurgical scalpel, soft tissue lasers or cryosurgery [1].

Use of electrosurgical scalpels in excision of epulis fissuratum have benefits of promptness, hemorrhage control and sterile incision over conventional scalpel technique and conversely is also reported to increase osteoclastic activity, delay wound healing, excessive scar formation [5]. Soft tissue lasers have also been suggested as a substitute, as a result of previously reported advantages of improved hemostasis, sterilization of the surgical field, less edema, reduced pain, minimum scarring and less requirement of local anesthesia. However, other studies also have reported reduction in vestibular depth and other disadvantages including thermal damage to collateral tissues and the high cost. [4, 5].

Of late cryosurgery has also been suggested for the excision of soft tissue growths with favorable outcomes on hemostasis and post-operative healing. However, there is lack of published information on the studies utilizing cryosurgery for excision of these lesions [2, 5]. In our case, satisfactory outcomes were achieved with Epulis fissuratum excision located in the upper labial sulcus using conventional scalpel surgery.

Conclusion

It is necessary to acquire oral health protection knowledge in modern dentistry, which will help in preventing chronic diseases of oral mucosa. However, performing standard prosthetic treatment and carrying out necessary denture maintenance procedures as early as possible helps to prevent occurrence of such overgrowths. Conventional scalpel excision is a safe, economical and effective treatment of choice in management of Epulis fissuratum with excellent prognosis.

References

1. Mortazavi H, Khalighi HR, Jafari S, Baharvand M. Epulis fissuratum in the soft palate: Report of a case in a very rare location. Dental Hypotheses,2016:7(2):67-69.
2. Vyasarayani P, Madhumietha A, Gundlapalle P. Management of geriatric patient with epulis fissuratum using liquid nitrogen cryosurgery: a case report. The Journal of Indian Prosthodontic Society,2014:14(1):115-119.
3. Mohan RP, Verma S, Singh U, Agarwal N. Epulis fissuratum: consequence of ill-fitting prosthesis. BMJ Case Reports, 2013: bcr-2013-200054.

4. Kafas P, Upile T, Stavrianos C, Angouridakis N, Jerjes W. Mucogingival overgrowth in a geriatric patient. Dermatology online journal,2010:16(8):1-4.
5. Sindel A, Ali AM. Evaluation of the efficacy of conventional surgery in the management of epulis fissuratum lesions rarely encountered on the lingual aspect of the alveolar crest. Clinical Dentistry and Research,2017:41(3):124-131.