

Quadra Epulis-A Rare Case Report

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Abstract

Epulis is the most commonly detected benign tumor of the oral cavity. Usually presents as a solitary lesion involving the marginal and attached gingiva. It is the 1st reported case of a 56 year old female patient with four isolated epulides on all four sides of oral cavity and this rare finding is coined as 'Quadra Epulis'.

Keywords: Quadra Epulis, oral cavity.

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INTRODUCTION

Increase in the size of the gingiva is a common feature of gingival disease. Accepted current terminology for this condition is gingival enlargement and gingival overgrowth. These are strictly clinical descriptive terms and avoid the erroneous pathologic connotations of terms used in the past such as hypertrophic gingivitis or gingival hyperplasia. The gingiva and associated soft tissues of the periodontium may be enlarged in response to various interactions between the host and the environment. Such enlargements usually represent an inflammatory response to bacterial plaque, increased susceptibility to many systemic factors or conditions. From the clinical standpoint, the clinician should be particularly concerned with cases where there is evidence of gingival enlargement because it poses a plaque control problem, effect mastication, alter tooth eruption, interfere with speech and cause aesthetic concerns [1, 2].

Based on the etiopathogenesis, an accurate diagnosis of lesion should be determined. A combination of non-surgical, surgical treatment modalities along with patient counselling should be employed in order to maintain successful therapeutic outcome

In this paper we report a rare finding of four giant isolated gingival enlargements seen in relation to

all four 1st and 2nd maxillary and mandibular molars and its management.

Case Report

A 56 Year old female patient reported to the Department of Periodontology, with the chief complaint of bleeding from the gums and a swelling in the lower right back region of the jaw. The patient gave an insignificant medical or dental history.

On examination, teeth showed generalized attrition, edematous and hyperplastic marginal and attached gingiva that elicited bleeding on probing. Further examination revealed large multiple swellings bilaterally in relation to molars of maxillary and mandibular arches. In the lower arch, the swelling on either side extended from the occlusal plane to the depth of the vestibule, from the retromolar region to distal aspect of 2nd premolar mesio-distally, penetrated interdental papillae buccolingually to present as a bilobular mass connected through interdental col region. The extent of the swellings was similar in the upper arch labio-palatally and also from the tuberosity region to distal aspect of 2nd premolar (Figure 1 & 2). The growth was pedunculated, non-tender, non-fluctuant, reddish pink in appearance with a distinct erythematous border. There was profuse bleeding on palpation, irregular surface and firm in consistency. Radiographically, moderate to severe bone loss was noted in relation to the molars on all 4 sides, which did

not correspond to bone loss in the rest of the dentition (Figure-3).

On the basis of clinical and radiographic findings, a provisional diagnosis of chronic generalized gingivitis with epulides (localized benign soft tissue lesions) in all 4 quadrants. In the best of our knowledge this is the 1st reported case of 4 sided presentation of epulides, which we termed it as “Quadra Epulis”. Patient was informed about his condition; under his

consent the swellings were surgically excised. This was followed by extraction of 18, 28, 36, 37, 46 and 48 due to severe bone loss. The patient was prescribed amoxicillin (500 mg 8 hourly for 5 days), metronidazole (400 mg 8 hourly for 5 days), acetaminophen (50 mg 12 hourly for 3 days), Vitamin C (100 mg 8 hourly for 14 days) and asked to rinse with chlorhexidine mouthwash 0.12% for a period of two weeks. Advised to report back to the clinic after two weeks.



Fig-1: Epulides in Left Posterior Aspect of Maxillary and Mandibular Arch



Fig-2: Epulides in Right Posterior Aspect of Maxillary and Mandibular Arch



Fig-3: OPG Showing Localised Bone Loss Bilaterally In the Moalr Region of Maxillary and Mandibular Arches

DISCUSSION

Epulis is a non-specific clinical term used to describe any benign, circumscribed tumors, located in the area of the gums or near the alveolar margin [3]. It occurs more commonly in females in the ratio of 2:1 [4]. Based on the histopathological features, Anneroth and Sigurdson classified epulides as: fibrous hyperplasia, granulomatous hyperplasia and giant cells hyperplasia [5]. Fibrous epulis usually presents as a firm, pink, uninfamed hyperplastic mass, that tends to grow from below the free gingival margin/interdental papilla. The patient is usually asymptomatic; pain is secondary to trauma. They tend to grow rapidly penetrating interdental papilla and present as bilobular (buccal and lingual) mass connected through the col area [6, 7]. In the case we reported, similar clinical characteristics were noted, thus confirming the clinical diagnosis of “Quadra Epulis”.

The aetiology of epulis is still unclear, certain irritative factors such as defective dental fillings, poorly fitting dentures, poor oral hygiene, and also hormonal influences due to the variation of estrogen and progesterone levels [8]. In postmenopausal women, estrogen deficiency leads to an increase in the immune function, which culminates in an increased production of TNF by activated T cells. TNF increases osteoclast formation and bone resorption both directly and by augmenting the sensitivity of maturing osteoclasts to the essential osteoclastogenic factor RANKL. This immunological cascade may affect the bone remodeling process [9]. Mascarenhas et al. reported that female sex hormones are neither necessary nor sufficient to produce gingival changes by themselves. However, they may alter periodontal tissue responses to microbial plaque and thus indirectly contribute to periodontal

disease [10]. In the case we reported, age and gender of the patient are the possible non-modifiable risk factors contributing to the gingival enlargement and localized bone loss around the molar regions.

Differential diagnosis for epulis include, metastatic lesions, hemangioma, Kaposi's sarcoma, Peripheral Giant cell Granuloma. Epulides should be differentiated based on clinical and histological features. A number of surgical options are available for removing gingival hyperplastic lesions. The most widely used are the surgical scalpel [11], the electrocautery [12], the CO2 laser, the Erbium:YAG (Er:YAG) laser, the Neodymium:YAG (Nd:YAG) laser, and the diode laser [13]. El Wady et al. have proposed the use of intra- and perilesional injection of 1,000,000 IU of penicillin G, as the antibiotic induces sclerosis and posterior necrosis of the lesion, which ultimately becomes detached [6]. This method is often used as an adjunct to surgical excision to prevent relapse. Combined advantages of scalpel and laser technique, could lead to better prognosis of the lesion.

CONCLUSION

Due to limited knowledge often such cases are misdiagnosed as cancerous growths affecting the treatment plan and causing unnecessary stress for the patient. Epulides have a multifactorial etiology and clinically resemble soft tissues lesions such as peripheral ossifying fibroma and fibroma. Surgical excision of the entire lesion along with the elimination of the causative agents will prevent recurrence of such growths. Patients should be put on long term follow up to further minimize the chances of recurrence.

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