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A TYPICAL PRESENTATION OF GIANT FIBROUS EPULIS OF MAXILLA- A CASE REPORT

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ABSTRACT

Reactive lesions of gingiva are common non- neoplastic growths. They are mostly asymptomatic and may present for even weeks to months before being noticed by patients. They are responses to long standing irritations present in the gingiva. Gingival Epulis or Peripheral Fibroma is a common reactive oral lesion noticed on the gingiva. In this paper a case of giant fibrous epulis which was diagnosed and surgically managed in a 64-year-old female patient and followed up for a period of six months is illustrated.

Keywords: Epulis, Gingival Overgrowths, Gingival Diseases, Gingival Hyperplasia

INTRODUCTION

Fibrous epulis is the most common reactive lesion of gingiva. The prevalence of fibrous epulis among the reactive lesions is (56-61%). It can be either sessile or pedunculated growth with a smooth surface and with the same colour of the gingiva (Rossmann, 2011). It occurs more frequently in women in the ratio of 2:1. Based on their histopathological findings they are classified into four types fibrous, granulomatous, angiomatous and giant cell. Fibrous epulis is a firm pink mass that is mostly asymptomatic and tends to grow in the gingiva. Bony involvement is uncommon (Singh *et al.*, 2018). Their size ranges from few millimeters to several centimeters. They are produced in association with chronic irritation or trauma (Naderi *et al.*, 2012). According to a study done by Hunasgi *et al.*, (2017) the most common site of occurrence of the reactive lesions was anterior region followed by lower posterior and upper posterior and they are mostly found in adults in their third – fourth decades (Naderi *et al.*, 2017). In our case it was reported in a female patient at sixth decade and because of her delayed reporting the growth has attained an abnormal size.

CASE

A 64-year-old female patient reported to the Department of Oral Medicine and Radiology with a chief complaint of a giant growth in the left maxillary alveolar region for past 4 years. History revealed that the growth started as a small nodule which gradually increased to the present size. It was a painless growth,

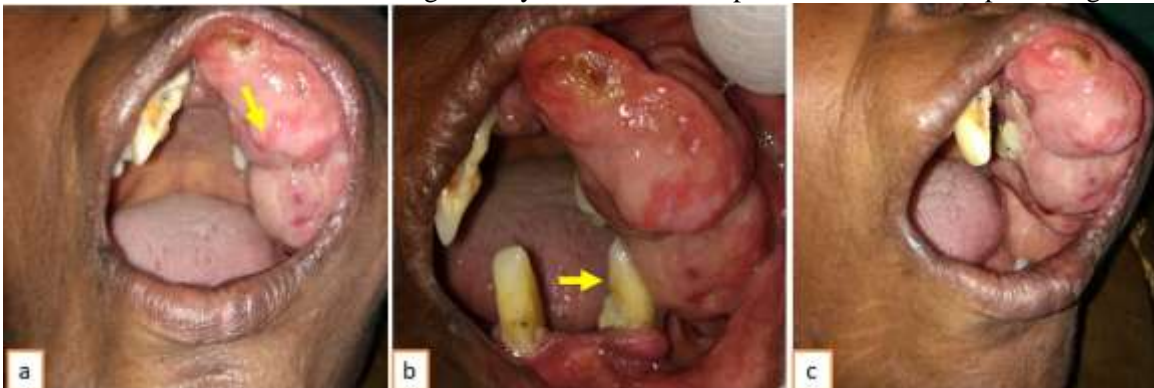


Figure 1: a) The arrow mark denotes the erythematous appearance on the surface of growth; b) The arrow mark denotes the impingement of lower tooth on the growth; c) The appearance of the growth is lobulated. The growth completely masked the presence of 22,23,24 and 25.

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with difficulty in mastication, phonation, and deglutition. Medical history revealed patient was on medication for diabetes for past 10 years. On extraoral examination facial asymmetry was present. Fullness of cheek on left side was noted. Incompetent lips were seen as the growth extended outside her lips. Intraoral examination revealed a solitary gingival growth approximately 6 x 4 cm in size with irregular in shape and surface appearing lobulated present on the left maxillary alveolus. It was pale pink in colour with some areas showing erythematous caused by impingement of lower teeth over the growth. On palpation it was firm in consistency, a pedunculated growth and no bleeding was elicited. Only few teeth were present that were periodontally compromised with mobility noted in 22,23,24,25 and 28 (figure 1).

Orthopantomogram (OPG) showed interdental bone loss in the affected side and the teeth present were 11,13,14,15,22,23,24,25,28,33 and 42 and root stump 18 (figure 2). So, considering the history, size of the growth, its clinical and radiographic features a provisional diagnosis of Giant Fibrous Epulis was given. Differential Diagnosis of Peripheral Ossifying Fibroma, Peripheral Giant Cell Granuloma and True fibroma were considered.



Figure 2: OPG reveals interdental bone loss and the teeth present were 11,13,14,15,22,23,24,25,28,32 and 42 and root stump 18.

The patient was then planned and referred for surgical management. Routine blood investigations such as Total count of WBC's (TC), Differential count (DC), ESR, Hb, RBC count, platelet count, Bleeding time

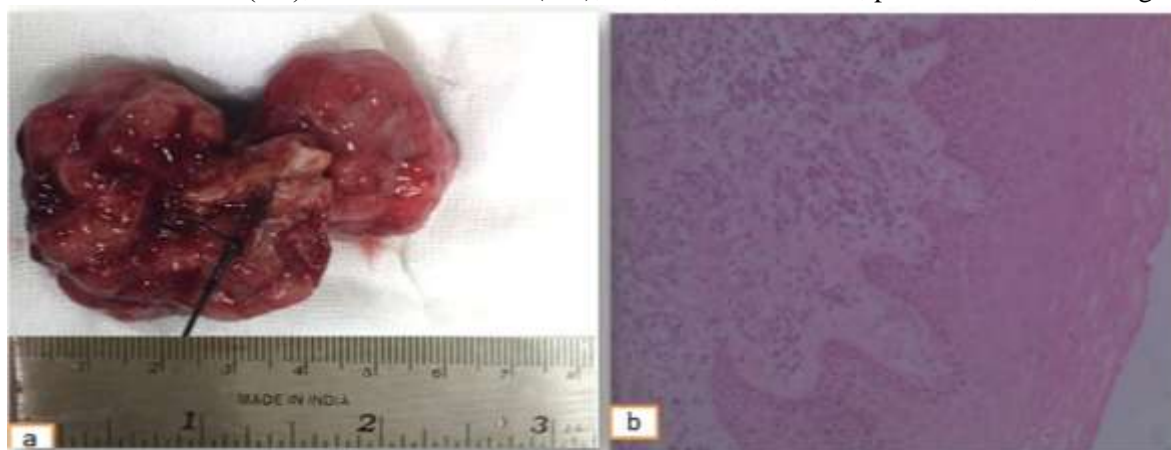


Figure 3: a) Excised specimen; b) Photomicrograph of H& E stained section in 10 x view reveals stratified squamous epithelium. The underlying connective tissue showed dense fibrosis with chronic inflammatory cells and numerous blood vessels

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(BT), Clotting time (CT), Random Blood Sugar were done prior to surgery. The results were Total count of WBC's-6760cells/mm³, Neutrophils -75 %, Monocytes – 5%, Lymphocytes -22%, Eosinophils -5%, ESR-10mm, Hb – 12gms, bleeding time- 2 minutes, clotting time-6 minutes, Random blood sugar was 116mg/dl. Surgical excision was the treatment of the choice. Excision of the growth was done along with the periodontally compromised dentition, adequate hemostasis was achieved, and the excised specimen was sent for histopathological examination. Post-operative oral hygiene instructions were given to the patient and was reviewed periodically. HPE examination in 10 x view showed stratified squamous epithelium. The underlying connective tissue showed dense fibrosis with chronic inflammatory cells and numerous blood vessels thus confirming a reactive fibrous lesion mostly Fibrous Epulis (figure 3).

Patient was followed up for a period of six months and postoperative OPG was taken which showed no recurrence (figure 4)

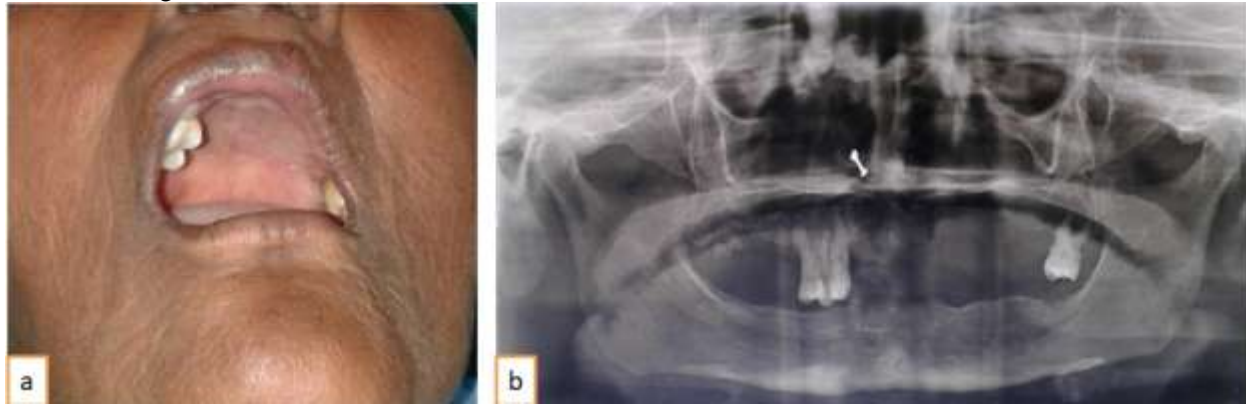


Figure 4: a) Clinical picture taken after 6 months; b) Post-operative OPG taken after 6 months showing the extraction of the periodontally compromised teeth

DISCUSSION

The term Epulis was first coined by Virchow in 1864. Growth on gingiva is termed as Epulis. The term “reactive localized inflammatory hyperplasia” is used most aptly to pyogenic granuloma/pregnancy tumor, peripheral ossifying fibroma, denture irritation hyperplasia, peripheral giant cell granuloma and the fibrous epulis as these lesions develop in response to chronic and recurrent tissue injury which stimulates an excessive tissue response (Fonseca *et al.*, 2014). The key role in etiopathogenesis is played by the reactive inflammatory component within the periodontal ligament or the periosteum. Poor oral hygiene is a contributing factor (Laus *et al.*, 2016). In our case it was the calculus which was identified as the chronic local irritating factor. The clinical features reflect various stages of their development, initially it appears red and bleeds spontaneously on slight touch while in later stages they become firm, mature and avascular fibrous growths (Awange *et al.*, 2009). Most of the reactive inflammatory growths on the gingiva reported in the literature are smooth surfaced while in our case the surface was lobulated and attained a size of roughly 6x4cm. These lesions were mostly noted among people in their third and fourth decades which again in the present case was noted in a 64 year old geriatric patient. The differential diagnosis includes Peripheral Ossifying Fibroma (POF), Peripheral Giant cell Granuloma and True Fibroma. Peripheral Giant cell Granuloma are the most aggressive among the epulides and the purplish-red colour and tendency for haemorrhage indicates to a highly vascular lesion. Radiographically, associated erosion of the adjacent cortical bone and separation of adjacent teeth will be noticed. Histology reveals highly vascular fibrous stroma interspersed with variable numbers of multi-nucleate giant cells (Savage and Daly, 2010). POF occurs exclusively in the gingiva. It appears as a nodular mass which are either sessile or pedunculated (Jayachandran *et al.*, 2016). Histologically Peripheral Ossifying fibroma consists of fibrocellular component with focal deposits of bone, cementum (Jayachandran *et al.*, 2020). True Fibroma is an extremely rare benign neoplasm, it could be distinguished from reparative or reactive

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hyperplasia by sharp demarcation of the lesion from the surrounding tissues and the presence of a true capsule, the presence of spindle fibroblast-like cells, and the absence of cellular pleomorphism (Christopoulos *et al.*, 1994). The present case displayed that the lesion was present for a considerable time period but, it did not show any dysplastic changes and all the factors such as a pedunculated growth, the presence of localized irritating factor such as calculus and interdental bone loss in OPG, favored more of a reactive fibrous overgrowth. Due to the giant size of the growth it should not be confused with a tumor. The treatment usually consists of the complete removal of the growth along with the underlying periosteum, a thorough curettage of the bone should be done, and local irritative factors should be removed. These lesions can recur, at a rate of about the 10% (Anisuzzaman *et al.*, 2019). Apart from conventional surgery electrocautery, Lasers have been used. Lasers provide bloodless field of surgery, minimal swelling and scarring (Arora *et al.*, 2013)

CONCLUSION

This case presents that fibrous epulis can attain unusually larger size. Because of its unusual size, discussion & considerations of various differential diagnosis should be done tactfully to prevent unusual distress to patient. Early diagnosis, proper clinical approach and intervention will improve the quality of life of the patient which was done in our case.

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REFERENCES

- Anisuzzaman MM, Alam MK, Khan SR, Kamrujjaman M (2019). Giant Fibrous Epulis in the Posterior Segment of Mandible: A Clinical Note. *International Medical Journal* **26**(3) 241-242.
- Arora S, Lamba AK, Faraz F, Tandon S, Chawla K (2013). Treatment of Peripheral Ossifying Fibroma using Er, Cr: YSGG Laser: Report of Two Cases. *International Journal of Laser Dentistry* **3**(3) 94-99.
- Awange DO, Wakoli KA, Onyango JF, Chindia ML, Dimba EO, Guthua SW (2009). Reactive localised inflammatory hyperplasia of the oral mucosa. *East African Medical Journal* **86**(2) 79-82.
- Christopoulos P, Sklavounou A, Patrikiou A (1994). True fibroma of the oral mucosa: a case report. *International Journal of Oral and Maxillofacial Surgery* **23**(2) 98-99.
- Fonseca GM, Fonseca RM, Cantín M (2014). Massive fibrous epulis—a case report of a 10-year-old lesion. *International Journal of Oral Science* **6**(3) 182-184.
- Jayachandran S, Aarthi Nisha V, Vasudevi R (2016). Giant Peripheral Ossifying Fibroma of Maxillary Alveolus. *Indian Journal of Dental Education* **9**(4) 245-248.
- Jayachandran S, Sophia Jeba Priya, Archana M (2020). Peripheral Ossifying Fibroma of mandibular anterior gingiva in a young boy – a case report. *Clinical Dentistry XIV* 18-22.
- Laus M, Conti MA, Croce A (2016). Giant fibrous Epulis: a case report of a benign mass of the oral cavity. *International Journal of Otolaryngology and Head & Neck Surgery* **5**(06) 228-232.
- Naderi NJ, Eshghyar N, Esfahanian H (2012). Reactive lesions of the oral cavity: A retrospective study on 2068 cases. *Dental research journal* **9**(3) 251 -255.
- Naderi NJ, Koneru A, Vanishree M, Manvikar V (2017). Assessment of reactive gingival lesions of oral cavity: A histopathological study. *Journal of Oral and Maxillofacial Pathology* **21**(1) 180.
- Rossmann JA (2011). Reactive lesions of the gingiva: diagnosis and treatment options. *The Open Pathology Journal* **5**(1) 23-32.

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Savage NW, Daly CG (2010). Gingival enlargements and localized gingival overgrowths. *Australian Dental Journal* **55**(s1) 55-60.

Singh D, Pranab A, Mishra N, Sharma AK, Kumar S (2018). Epulis-Commonly Misdiagnosed Entity: A Report of 2 Cases. *Journal of Interdisciplinary Medicine and Dental Science* **6**(2) 2.