Case Report

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GINGIVAL FIBROMA: A CASE REPORT

Lalithambika Valliyil[1], Sukanya Rajan[2], Geetha Vijay[3], Sanjeela Guru[4], Ashwini. R. Dhananjaya[5], Kshitija Prasad[6]

1.P.G Student, Department of Periodontics, Vydehi Institute of dental sciences, bangalore.
2.Professor, Department of Periodontics, Vydehi Institute of dental sciences, bangalore.
3.H.O.D and Professor, Department of Periodontics, Vydehi Institute of dental sciences, bangalore.
4.Reader, Department of Periodontics, Vydehi Institute of dental sciences, bangalore.
5.P.G.Student, Department of Periodontics, Vydehi Institute of dental sciences, bangalore.
6. P.G.Student, Department of Periodontics, Vydehi Institute of dental sciences, bangalore.

ABSTRACT:

The fibroma, also referred to as irritational fibroma, is by far the most common of the oral fibrous tumor like growths. While the terminology implies a benign neoplasm, most if not all fibromas represent reactive focal fibrous hyperplasia due to trauma or local irritation. It is a round-to-ovoid, asymptomatic, smooth-surfaced, and firm sessile or pedunculated mass. The diameter may vary from 1 mm to 2 cm. The surface may be hyperkeratotic or ulcerated, owing to repeated trauma. The fibroma is best treated by conservative surgical or laser removal, with a small chance of recurrence if the originating irritation persist. There is no risk of malignant transformation.

Keywords: Irritational fibroma, Inflammatory hyperplasia, Benign neoplasm, Oral lesion.

INTRODUCTION:

Exophytic gingival lesions represent some of the more frequently encountered lesions in the oral cavity. Based on clinical appearance, different lesions are often indistinguishable from one another. These lesions are a result of trauma or chronic irritation, or they can arise from cells of the periodontium, periodontal ligament, or periosteum. Some of the most commonly encountered exophytic gingival lesions are irritational fibroma, peripheral ossifying fibroma, pyogenic granuloma, and peripheral giant cell granuloma.[1] A report of more than 30,000 oral biopsies submitted for diagnosis observed that nearly 13% were taken from the gingiva.[2] Each of the previously mentioned lesions has been associated with or related to trauma or low-grade irritation as an etiologic factor, and these are generally considered to be reactive and/or non-neoplastic. [1]

Fibroma is a common submucosal response to trauma from teeth or dental prostheses and was first reported in 1846 as fibrous polyp and polypus. [3,4] It is universally understood that the use of the term "fibroma" is not intended in this case to convey neoplastic origin, as is the usual intent of its use for fibrous tumors in other anatomic sites. Found in 1.2% of adults, this inflammatory hyperplasia is the most common oral mucosal mass

*Corresponding Author Address:Dr Lalithambika Valliyil, Department of Periodontics, Vydehi Institute of dental sciences, bangalore. Email: lalithambika.valliyil@gmail.com

submitted for biopsy and is usually composed of Type I and III collagen. This lesion generally presents as a painless, sessile, round or ovoid, broad-based swelling that is lighter in color than surrounding tissue due to reduced vascularity.[5] The most common oral lesion of the oral cavity is leukoplakia and the least being the varicosities.[6]

With the above description, a case report on gingival fibroma is being described below.

CASE DETAIL:

A female patient aged 50 years reported to the Department of Periodontics Vydehi Institute of Dental Sciences and Research Centre Bangalore, with a chief complaint of painless swelling in the lower right back tooth region. Patient's history reveals that the swelling was present since 20 years and it was not associated with pain. On intraoral examination the swelling was located lingual to right mandibular second (47) and third molar (48) involving the interdental gingiva (*Figure 1*). On intra oral examination the leison was pedunculated, 9mm in size, pale pink in colour, soft in consistency with a smooth surface. Periodontal examination revealed a probing depth of 7mm w.r.t 47(midlingual) and 8mm w.r.t 48(mesiolingual) (*Figure 2 and 3*).

Radiological and hematological investigations: Intra oral periapical radiograph and occlusal radiograph revealed that there was no underlying osseous involvement of the lesion. Complete blood picture showed values within normal range.

Provisional diagnosis: Pyogenic Granuloma.

Differential diagnosis: Peripheral ossifying fibroma, Fibroma, Angiofibroma, Epulis Fissuratum, Squamous Cell Carcinoma or Verrucous Carcinoma .

Treatment: Based on the above clinical and radiological findings it was decided to excise the tissue. Under local anesthesia the lesion was excised using scalpel and No. 15 blade.

After the excision, surgical area was curetted and a periodontal pack (Coe-pack) was placed.

The excised tissue was sent for histopathological examination.

Histopathology report: The excised tissue measured about 1x1x1cm. Microscopic examination showed parakeratinized stratified squamous epithelium with confluent reteridges.The underlying connective tissue stroma showed diffuse collagen fiber bundles with proliferating fibroblasts, endothelial lined blood vessels with RBC's within the lumen. Presence of chronic inflammatory cells chiefly lymphocytes and areas of hemorrhage were also appreciated suggestive of fibroma.

Final diagnosis: Based on the above histopathological findings the leison was diagnosed as fibroma.

The patient was followed up at regular time intervals and at the end of 2 months

the surgical area has healed without any recurrence of the lesion.

DISCUSSION:

Fibroma is a slowly progressing lesion, the growth of which is generally limited. Irritation fibroma occurs more frequently in females than in males between third and fourth decades of life. As in the present case, irritation fibroma occurred in a 50 year old female.patient. The high female predilection and a peak occurrence in the second decade and declining incidence after third decade of life suggested hormonal influences. Approximately 60% of irritation fibromas occur in maxilla and they are found more often in anterior region, with 55-60% presenting in the incisor –cuspid region.[7] The tumor may be small or in rare instances may range upto several centimeters in diameter. The surface may be either intact (34%) or ulcerated (66%).[8] It is interesting to note that fibroma a true neoplasm of connective tissue origin, is microscopically similar to the condition known as inflammatory hyperplasia, an increased bulk of tissue which forms as part of an inflammatory reaction. In few situations is the distinction between the two general processes, hyperplasia and neoplasia where hyperplasia is usually considered to be a self limiting process which is not etiologically related to neoplasia. Hyperplastic tissue sometimes but not invariably regresses after the removal of the stimulus or irritant. Neoplastic tissues shows no such regression. [9]

CONCLUSION:

Fibromas are one of the most commonly encountered lesions in the oral cavity which may be associated with any trauma or any persistent irritation. Clinically it is difficult to differentiate between most of the reactive gingival lesions particularly in the initial stages. Numerous treatment modalities have been employed for the treatment of gingival fibroma consisting of surgical excision, electrocautery, laser etc., depending upon the clinical and anatomic considerations. So it is very important that etiological factors have to be removed and histologically examined for confirmation of the lesion.

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FIGURES:

Figure 1: pre-operative view

Figure 2: probing depth midlingual i.r.t 47

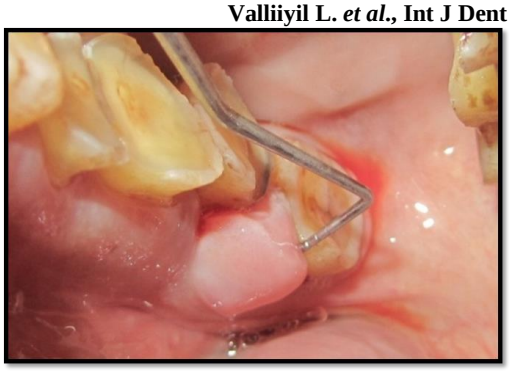


Figure3: probing depth mesiolingual i.r.t 48

Figure4: vertical measurement of the lesion

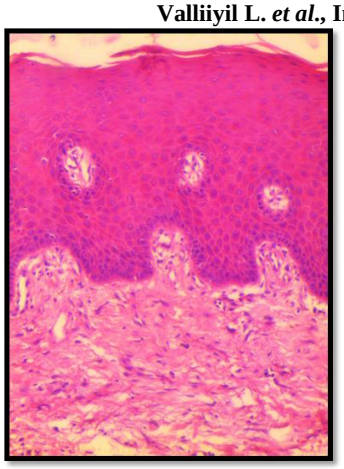
Figure 5: horizontal measurement of the lesion

Figure 6: Sulcular incision given

Figure 7: excised tissue

Figure 8: post-excision

Figure 9: periodontal pack placed



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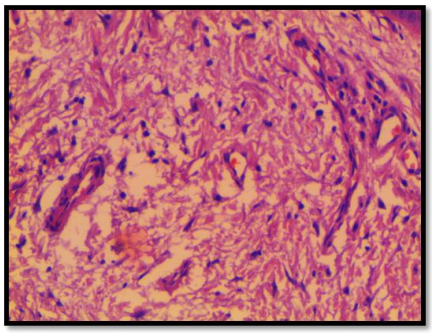

20x Image

Figure 10: Microscopic image

Figure 11: 2 weeks post operative

TABLES:

***Table 1*: The 10 most common soft tissue oral lesions**

Entity	Percentage of all oral lesions
Leukoplakia	18.2
Palatal or mandibular torus	17.2
Inflammation or irritation	10.8
Irritation fibroma	7.4
Fordyce's granules	5.9
Hemangioma	3.4
Inflammatory ulcer	3.2
Papilloma	2.9
Epulis fissurata	2.6
Varicosities	2.1