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FIBROEPITHELIAL HYPERPLASIA OF GINGIVA: A REPORT OF TWO CASES

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ABSTRACT **CASE REPORT**

Introduction- Fibromas are the most common fibrous overgrowths of the oral cavity that occur in response to a low-grade stimulus. The treatment involves; efficient plaque control, removal of etiological factors and conservative excision of the tissue to avoid recurrence. Hence, it is necessary that clinicians have adequate knowledge about such fibrous overgrowths so as to differentiate them from other similar appearing lesions. **Case discussion**- Two patients reported with a chief complaint of overgrowth in the gums. On clinical examination, the overgrowths were diagnosed as Fibromas. Radiographic and hematological investigations were carried out. After thorough scaling and root planning, the overgrowths were excised and sent for histopathological examinations. A diagnosis of fibroepithelial hyperplasia was reported. **Conclusion**- Fibromas shows similar clinical and biological behavior; however, they have a distinct histopathology. Excision is the treatment of choice along with elimination of the etiological factors like plaque, calculus to avoid recurrence.

INTRODUCTION

Oral mucosa is subjected persistently to external and internal stimuli that can lead to the development of the localized inflammatory hyperplasia. The term 'Fibro epithelial hyperplasia' was given by Deley et al in 1990. Fibroepithelial hyperplasia refers to a reactive localized tissue response and is therefore a better term to 'fibroma' which wrongly implies to a neoplastic lesion.[1] Fibroepithelial

hyperplasias are also known as irritational fibroma, oral fibroma or fibromatosis and it has a prevalence rate of 1.2 percent.[2] It represents focal fibrous hyperplasia occurs in reaction to low-grade chronic irritation by dental plaque, calculus, food lodgement, faulty restoration, ill-fitting dental/oral appliances. [3] These overgrowths are tumor-like hyperplasias that are produced in association with chronic local irritation or trauma. These proliferations are painless pedunculated or sessile masses in different colors, from light pink to red. The surface appearance is variable from non-ulcerated smooth to ulcerated mass. Lesion size varies from a few millimeters to several centimeters.[4] Histologically, fibrous tissues with a range of components such as multinucleated giant (MNG) cells, calcified materials or small vessel hyperplasia may be noted. [4] Surgical excision along with the removal of causative irritants remains the treatment of choice.[5]

CASE REPORTS

CASE 1: A 55-year-old female patient reported with a chief complaint of overgrowth of the gums in lower right front region of jaw since two months. Medical history revealed, patient was a known hypertensive and diabetic from past 10 years and was under medication for the same. On extra oral examination, no abnormalities were detected. On intraoral examination no abnormalities were detected with respect to labial mucosa, buccal mucosa, floor of the mouth, tongue or palate. Gingival examination revealed a 6 x 7 mm, pinkish red, sessile overgrowth which was firm in consistency in relation to lower right canine and first premolar region (43, 44). Simplified Oral Hygiene Index (OHI-S) score was 2, which indicated poor oral hygiene. Intraoral periapical radiograph did not show any abnormalities. Routine hematological investigations were carried out, which were well within normal limits. Oral hygiene instructions were given to the patient and complete scaling and root planning was performed. Under local anesthesia, the overgrowth was excised along with the margin of healthy tissue. The excised tissue was sent for histopathological examination. On histopathological examination the Hematoxylin and Eosin stained section showed hyperplastic parakeratinized stratified squamous epithelium with connective tissue entrapment. The underlying connective tissue showed moderate chronic inflammatory cell infiltrate, numerous small blood vessels and collagen fibers arranged in bundles. Histopathological features were suggestive of 'Inflammatory fibroepithelial hyperplasia'.

CASE 2: A 21-year-old male patient reported with a chief complaint of an oval overgrowth of the gums present on upper front region of jaw since six months. History of excision of a similar overgrowth in the same region 2 years back. On extraoral examination, no abnormalities were detected. On intraoral examination, no abnormalities were detected with respect to labial mucosa, buccal mucosa, floor of the mouth or tongue. Gingival examination revealed an 8x9 mm, pinkish red, pedunculated growth extending from the labial gingiva to the palatal gingiva, involving the interdental area. It was bright red in color and extended on the labial gingiva in relation to upper front central incisor region (11, 21). Simplified Oral Hygiene Index (OHI-S) score was 2, which indicated poor oral hygiene. Intraoral periapical radiograph did not show any abnormalities. Oral hygiene instructions were given to the patient and complete scaling and root planning was performed. Under local anesthesia, the overgrowth was excised along with the margin of healthy tissue. The excised tissue was sent for histopathological examination. On histopathological examination the Hematoxylin and Eosin stained section showed hyperplastic parakeratinized stratified squamous epithelium proliferating into the underlying connective tissue in the form of slender rete ridges and arcading pattern. The connective tissue was

fibrocellular, loose in some areas and composed of bundles of collagen fibers at other places. Moderate chronic inflammatory cell infiltrate with few dilated and engorged blood vessels was noted. Areas of ossification were evident at one place. Histopathological features are suggestive of 'Inflammatory fibroepithelial hyperplasia with ossification'.

DISCUSSION

Oral mucosa is constantly subjected to chemico-mechanical insults resulting in the variety of mucosal lesions. [5] All the gingival overgrowths were historically referred to as "Epulides".[6] These overgrowths are most commonly occurring mucosal lesions [2]. Almost all the lesions occurring intraorally that are called fibromas are not true neoplasms, but merely fibrous overgrowths caused by chronic irritation, many authors therefore prefer the term fibrous hyperplasia or fibroepithelial polyp for these types of lesions. [1] Kfir Y et al classified reactive hyperplasic lesions as Pyogenic Granuloma, Peripheral Giant Cell Granuloma, Peripheral Ossifying Fibroma and Focal Fibrous Hyperplasia. [2] Recently, Puranik RS et al suggested the abbreviation "FROG" for the same. [7]

Fibroma is the most common oral fibrous growth. It represents focal fibrous hyperplasia caused oftenly due to local irritation or trauma. [8] A fibroma may occur at any intraoral site but most often seen on buccal mucosa along the plane of occlusion of the maxillary and mandibular teeth. It is asymptomatic, round to ovoid in shape, firm, smooth surfaced, firm, sessile or pedunculated mass having a diameter around 1 to 2 cm. The surface may be ulcerated or hyperkeratotic. Fibromas may occur in individuals of any age and sex but are most often observed in adults. Presence of plaque and calculus may act as act as aggravating factors. These hyperplastic lesions are considered self-limiting, but since they interfere with form and function they need to be excised. Also if not treated, long standing lesions in the presence of chronic irritation can get converted into neoplasia. [1]

CONCLUSION

Inflammatory fibroepithelial hyperplasias have a distinct histopathology that shows similar clinical and biologic behavior. Excision is the treatment of choice. Removing the etiological factors like plaque, calculus will aid in avoiding recurrence of these lesions.

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Intraoral Photographs of the lesion
CASE 1

Fig. 1 Pre-operative

Fig. 2 One week follow up

Fig. 3 Two weeks follow up

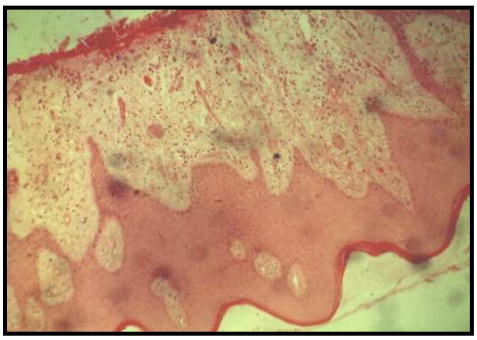

Fig. 4 Histopathology Section

Intraoral Photographs of the lesion

CASE 2

Fig. 5 Pre-operative (frontal view)

Fig. 6 Pre-operative (occlusal view)

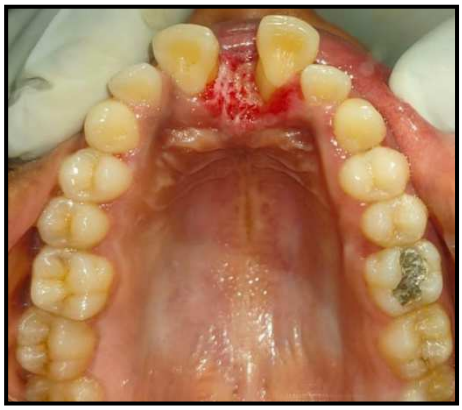

Fig. 7 One week follow up

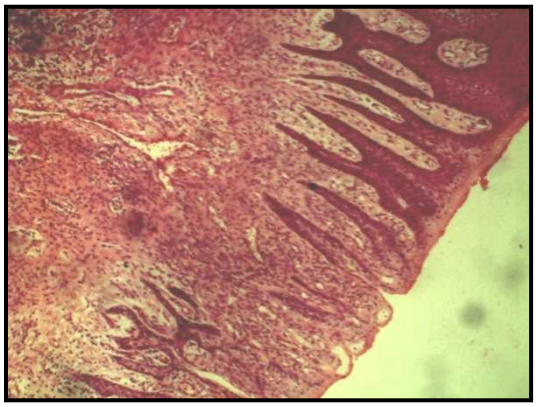

Fig. 8 Histopathology section