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Fibroepithelial hyperplasia of gingiva: A 1 year follow up case report

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ABSTRACT

Fibroepithelial hyperplasia is reactive-progressive proliferation of oral tissues in response to injury or local irritation. A reactive localized tissue response occurs in reaction to low-grade chronic irritation by dental plaque, calculus, food lodgement and faulty restoration. The lesion is a histological variant of fibroma. It is not true neoplasm, rather considered as mere fibrous overgrowth.These lesions could cause an aesthetic problem, interfere with mastication, speech and also impede effective plaque control. Surgical excision along with the removal of causative irritants remains the treatment of choice.A 17 years old female patient reported to Department of Periodontics with chief complaint of swelling and pain in left lower back tooth region for past 1 year. Intra-oral examination revealed a pedunculated growth extending from buccal gingiva to lingual gingiva involving interdental area. The growth was pinkish with smooth surface extending 13mm mesiodistally and 9mm apicocoronally. On palpation, it was firm, non-tender, non-reducible. Intra-oral periapical radiograph showed mild bone loss in relation to 33 and 34 tooth with drifting of these teeth. Phase 1 therapy was given and surgical excision was done after 1 month. 7 days post operatively, sutures were removed. Healing was uneventful. 1 year follow up revealed no sign of recurrence. Patient is still on follow up. Inflammatory fibroepithelial hyperplasia has a distinct histopathology that shows similar clinical and biologic behaviour to other lesions. Excision is the treatment of choice. Removing the etiological factors like plaque, calculus will aid in avoiding recurrence of these lesions.

Keywords: Fibroma; Biopsy; Inflammation.

INTRODUCTION

Fibroepithelial hyperplasia is a proliferative lesion of oral tissues in response to anylocal irritation. It is considered as a reaction to low-grade chronic irritation caused by dental plaque, calculus, and faulty restoration[1].It is not a true neoplasm, rather considered as a fibrous overgrowth due to chronic irritation in tissues.[2]Kfir et al. classified the reactive gingival lesions as pyogenic granuloma, fibrous hyperplasia, peripheral fibroma and peripheral giant cell granulomawith calcification on the basis of theirhistology.[3]

More than 30,000 oral biopsies submitted for diagnosis suggested that nearly 13% of them were taken from the gingiva. According to several authors[5,6,7] many of these lesions are true fibroma, whereas Cooke 1956[8] believed that, they are reactive in nature because it is caused due to local irritation. Prevalence of this lesion is reported as 1.2% in adult population[9]. It is most common in 3rd-4thdecade of life[3].

This lesion could interfere with mastication and speech, may cause an aesthetic problem, and impede with effective plaque control. As fibroepithelial hyperplasia is a reactive lesion, complete surgical excision is the treatment of choice and a low rate of recurrence is expected if local irritants are completely removed[10]. This case report describes fibroepithelial hyperplasia in 17 years old female patient in relation to lower left back tooth region and its management.

CASE REPORT: A 17 years old female patient reported to the Department of Periodonticswith the chief complaint of pain and swelling in the left back tooth region of lower jawfor past 1 year. It was started as a small nodule which gradually increased to the present size.Patient also gave the history of unilateral chewing from right side due to pain. Extra-oral examination did not reveal any abnormality.Intra-oral examination revealedpinkish, smooth,pedunculated growth extending from buccal sideto lingual side involving marginal, attached andinterdental gingiva with respect to lower left canine and first premolar as shown in figure 1and 2. Mesio-distal and apico-coronal dimensions of the

growth were 13mm×9mm, respectively. On palpation, it was firm, non-tender, non-reducible.Bleeding on probing was present. A carious tooth having chronic irreversible pulpitis wasalso present distal to the lesion. Medical history was non-contributory.

First,patient underwent endodontic treatment for carious tooth and after 1 month of successful endodontic treatment, further periodontal treatment was planned.

Intra-oral periapical radiograph as per figure 3revealed mild bone loss in relation to lower left canine and premolar with drifting of these teeth.

Phase I therapy was completed as shown in figure 4. Routine haematological investigation were within normal limits.Patient was made comfortable on the dental chair.Local anesthesia was administered. Growth was completely excised using 15C blade as shown in figure 5. Full thickness flap was raised and local debridement was completed using Gracey curette.The tissues were approximated using 3-0 silk suture as shown in figure 6. Chlorhexidine mouthwash was prescribed two time daily for 15 days. Amoxicillin 500mg thrice daily for 5 days and ibuprofen 400mg SOS was prescribed to patient post-operatively.Tissue was sent for histopathological examination.After 1 week, patient was recalled for suture removal. Healing was uneventful as per figure 7. Further,3 months and 1 year follow uprevealed normal tissue architecture as shown in figure 8 with respect to mandibular left canine and premolar with probing depth of 2mm.

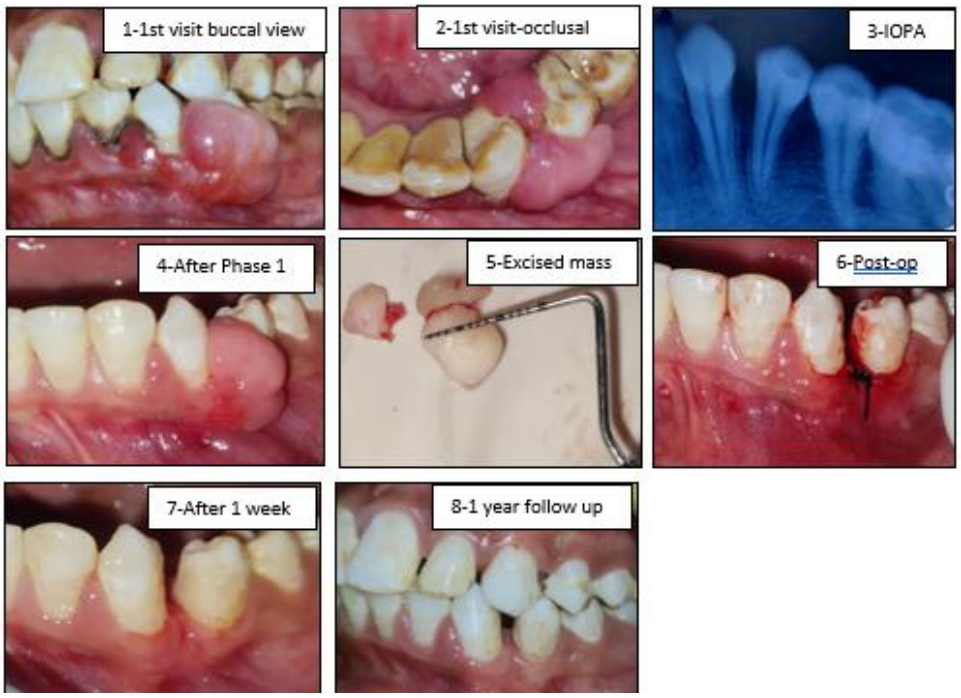

Figure 1-8: Clinical pictures depicting management of lesion.

Histopathological examination as shown in figure 9, revealed keratinized stratified squamous epithelium with thin and slender rete pegs and underlying connective tissue showed numerous mature collagen fibers and fibroblasts. Diffusely arranged chronic inflammatory cells were present throughout the stroma. It was suggestive of fibroepithelial hyperplasia.

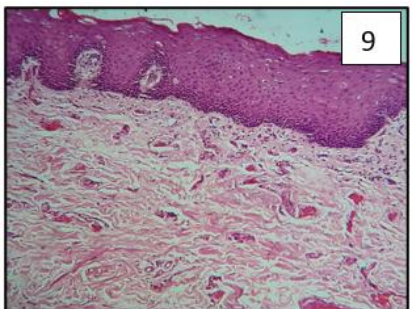

Figure 9: Histopathological picture

DISCUSSION

Traumatic fibromas are the most common soft tissue benign tumours in oral cavity[11]. It is also known as Focal Fibrous hyperplasia or oral fibroma[12]. These are not true neoplasms, but merely fibrous overgrowths which occur due to trauma or irritation caused by calculi, overhanging margins & restorations, foreign bodiesand sharp spicules of bones and over extended borders of appliances[9]. In contrast to neoplasia, hyperplasia is a self-limiting process, if the stimulus is removed. They occur more frequently in females than in males between third and fourth decade of life[3], but in present case, fibrous hyperplasia is reported in comparatively younger female patient.

It is difficult to differentiate fibrous hyperplasia from peripheral ossifying fibroma, pyogenic granuloma or peripheral giant cell granuloma on the basis of clinical features only, due to lack of unique clinical appearance. Fibrous hyperplasia and peripheral ossifying fibroma both appear firm, pale and non-tender. Due to presence of calcified material in the stroma of peripheral ossifying fibroma, it may appear firm on palpation. The Peripheral Giant Cell Granuloma and Pyogenic Granuloma appear more vascular and may bleed on probing and palpation. Lipoma can also be considered in differential diagnosis but it is rarely seen in the oral cavity[9].

Fibrous inflammatory hyperplasia can manifest itself as pedunculated or sessile growth on any surface of the oral mucous membrane.In the present case report, histopathological examination confirmed the diagnosis of fibroepithelial hyperplasia. Complete local excision is required to treat these lesions. These hyperplastic conditions are thought to be self-limiting but as they interfere with form and function, they need to be excised. Long standing hyperplastic lesions in the presence of chronic irritation can also get converted to neoplasia, so complete excision is the treatment of choice[2]. Patient should be followed up for any sign of recurrence.

CONCLUSION

Differences between hyperplasia and neoplasia needs to be clearly defined as neoplasias are not self-limiting and long-standing hyperplastic lesions can later get converted to neoplasiadue to chronic irritation. In addition to the physical characteristics of the lesion, presence of associated symptoms and systemic disorders, location and growth patterns of the lesionand patient's demographics all help to adequately diagnose the lesion. Continuous trauma and irritation are the main etiological factors for this, so it is important to eliminate the source of the irritation. If the lesion is treated without removing the stimulus, the lesion will recur. Treatment modalities commonly include scalpel surgery, cryotherapy, cauterization and laser.

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