INTRODUCTION

Fibroma of the oral mucosa is the most common benign “tumor” of the oral cavity.1 It is a neoplasm derived from fibrous connective tissues (CTs). Majority of the fibromas occurring in the oral cavity are reactive in nature and represent a reactive hyperplasia of fibrous CT in response to local irritation or trauma rather than being a true neoplasm.2 Daley et al.3 suggested the term “focal fibrous hyperplasia” (FFH), which implies a reactive tissue response therefore preferable than the term “fibroma.” It is also known as irritation fibroma (IF)/traumatic fibroma/FFH/fibrous nodule/fibro-epithelial polyp.4 Among all these, “IF” is the most commonly used term.5 The occurrence of IFs among the South Indian population was found to be 39.1%.6 It present as a painless, sessile or occasionally pedunculated swelling that can be firm and resilient or soft and spongy in consistency.7 Cooke8 described all the pedunculated swelling arising from a mucosal surface as “polyp” (fibro-epithelial polyp), where maximum number of lesions occurred on the mucosa in the line of occlusion, and the entire pedunculated and sessile lesion in the gingiva as “epulides” (fibrous epulides), which commonly occurred in the maxillary anterior region.9 In this article we present two rare cases of fibro-epithelial polyp occurring on alveolus and buccal mucosa respectively.

CASE REPORTS

Case 1

A 36-year-old female reported to the Department of Oral Medicine and Radiology with the chief complaint of growth in right lower back region of the mouth for 6 months. History elicited that the patient underwent uneventful multiple extractions 5 months back because of pain due to decay. The patient had been unaware about the growth until she consulted a private dentist for the replacement of the missing teeth in that region and because growth interfered with prosthesis placement, patient was thereby referred to the Vyas Dental College and Hospital. No alteration in size of the growth had been noted. On intraoral examination 16, 46 and 47 had been found missing and sharp cusp with respect to 17 was noted. A solitary, oval shaped, painless, well-defined, pedunculated growth had been observed on the right posterior mandibular alveolus (Figure 1).

The growth was smooth and shiny in appearance and slightly pale in color as compared to the normal mucosa, measuring about 1.5 cm × 1 cm × 1 cm present 1 cm distal to the 45 and extending from the alveolar ridge till the level of maxillary and mandibular occlusal plane (Figure 1).
palpation, the growth was firm in consistency, non-tender and was attached to the underlying surface. No other signs and symptoms of any syndromes were detected. Clinical diagnosis of fibro-epithelial polyp on the right mandibular alveolus was given. Orthopantomograph was taken (Figure 2) to check for bony changes associated. An excisional biopsy was performed, intraorally, under local anesthesia and the wound was sutured. Grossly, the mass was observed to be fibrous in nature (Figure 3). On histopathological examination, a parakeratinized stratified squamous atrophic epithelium underlying dense CT stroma was reported. And the CT showed to contain dense bundles of collagen fibers and moderate number of fibroblasts and fibrocytes along with chronic inflammatory cells (Figure 4). Histopathological diagnosis confirmed the clinical diagnosis. Post-operative healing was uneventful. No recurrence was reported on follow-up. In the present case, the continuous irritation by the sharp cusp of 17 on the alveolar ridge while chewing were the probable causative irritant, which enabled the growth to occur. After the excision of the lesion, coronoplasty was done for 17 and patient was advised prosthodontic rehabilitation.

Case 2
A 66-year-old male reported to the Department of Oral Medicine and Radiology with the chief complaint of pain in left lower back tooth region since 15 days. On intraoral examination, 35 root stump with ragged borders was observed along with sharp cusps of 26 and 27. A solitary, dome shaped, the painless, well-defined, pedunculated growth had been observed on left buccal mucosa along the occlusal plane of maxillary and mandibular teeth (Figure 5). Growth was present since 3-4 years. Initially, it was small in size, gradually it grew in size and then from past 1 year it had remained constant in size. The growth
was smooth surfaced with color resembling normal mucosa measuring roughly 5 mm in its greatest diameter. On palpation, the growth was firm in consistency, non-tender and was attached to the underlying surface. No other signs and symptoms of any syndromes were detected. Clinical diagnosis of fibro-epithelial polyp on left buccal mucosa was given. An excisional biopsy was performed, intraorally, under local anesthesia and the wound was sutured. Grossly, the mass was observed to be fibrous in nature (Figure 6). Histopathologically, a parakeratinized stratified squamous atrophic epithelium with short or flat rete-ridge pattern covering a fibrous CT stroma was reported. CT depicted dense bundles of haphazardly placed collagen fibers along with fibroblasts and few chronic inflammatory cells like lymphocytes and histiocytes. Numerous varying sized vascular spaces were also noted (Figure 7). Histopathological diagnosis confirmed the clinical diagnosis.

Post-operative healing was uneventful. No recurrence was reported on follow-up. In the present case, the ragged border of 35 root stump, sharp cusp of 26, 37 along with chronic cheek biting were the probable causative irritants, which enabled the growth to occur. After the excision of the lesion, 35 root stump was extracted, and coronoplasty was done for 26, 27 and 28.

DISCUSSION

IFs are the most common benign soft tissue tumors seen in the oral cavity.\textsuperscript{10} It represents FFH due to trauma or local irritation.\textsuperscript{9,11} These are not true neoplasms, but merely fibrous overgrowths. Many authors therefore prefer the term fibro-epithelial polyp or fibrous hyperplasia for these type of lesions.\textsuperscript{12}

IF is a common sub-mucosal response to trauma from teeth or dental prostheses and was first reported in 1846 as fibrous polyp and polypus.\textsuperscript{13} Fibroma occurs as a result of a chronic repair process that includes granulation tissue and scar formation resulting in a fibrous submucosal mass.\textsuperscript{14} The traumatic irritants include calculi, overhanging margins, restorations, foreign bodies, chronic biting, margins of caries and sharp spicules of bones and over extended borders of appliances.\textsuperscript{13} Axell (1976)\textsuperscript{15} encountered prevalence of 3.25% for fibromas in the adult Swedish population. They rarely occur before fourth decade and show no preference for either sex.\textsuperscript{15} The present case reports are of a female in her third decade of life and a male in his sixth decade of life suggesting variability seen in the affected age group. The fibroma occurrence corresponds with intraoral areas that are prone to trauma such as the tongue, buccal mucosa, and labial mucosa. Clinically, they appear as broad-based lesions, lighter in color than the surrounding normal tissue, with the surface often appearing white because of hyperkeratosis or with surface ulceration caused by secondary trauma. The growth potential of fibroma does not exceed 10-20 mm in diameter.\textsuperscript{16}

The clinical features of IF are not unique and the differentiation of these lesions should be made from peripheral ossifying fibroma, pyogenic granuloma or peripheral giant cell granuloma. The IF and peripheral ossifying fibroma both appear pale, firm and non-tender. However, peripheral ossifying fibroma appear exclusively on gingiva, and they may be firmer to palpate because of calcified material in the stroma.\textsuperscript{1,17} In addition they have the tendency to displace the adjacent teeth. The pyogenic granuloma and peripheral giant cell granuloma generally appear more vascular and may bleed when palpated or probed.\textsuperscript{17} Lipoma can also be considered in the differential diagnosis but it is rarely seen in the oral cavity which has a pale yellow color soft and has slip feel on palpation.\textsuperscript{18}

The differential diagnosis of IF is based mainly on the location of the soft tissue swelling. If it is located on the tongue, the possibility of neurofibroma, neurilemmoma or granular cell tumor must be considered. On the lower lip or buccal mucosa, the lesion might be a mucocele or salivary gland tumor. Although rare, benign neoplasms of mesenchymal origin should also be considered. IFs can
also differentiated from true fibromas (benign neoplasms) on the basis that a reactive or irritational fibroma usually has an etiology that is a source of irritation, while benign fibrous neoplasms do not have that. Histopathologically, IF exhibit two patterns of collagen arrangement depending on the amount of irritation and the site of the lesion: (a) Radiating pattern has been found to be associated with sites, which are immobile in nature (e.g. palate) and have a greater degree of trauma, (b) circular pattern is found to be associated with sites that are flexible in nature and have lesser degree of trauma (e.g. cheeks) whereas true fibroma does not show any of the patterns. They are capsulated as well sharp demarcation can be made from the surrounding normal tissue.  

IF does not hold a risk for malignancy. Recurrences are rare and are mostly caused by repetitive trauma at the same site. It can be treated by conservative surgical excision. Other protocols have also been proposed like the use of electrocautery, Nd: YAG laser, flash lamp pulsed dye laser, cryosurgery, intralesional injection of ethanol or corticosteroids or sodium tetradecyl sulfate sclerotherapy. However, it is important to submit the excised tissue for microscopic examination because other benign or malignant tumors can also mimic the clinical appearance of a fibroma.

**CONCLUSION**

Due to similar clinical presentation of reactive soft tissue overgrowths they present a diagnostic dilemma for the dentists. Their occurrence may pose a hindrance for the denture placement, difficulty to eat and talk. As they occur due to continuous trauma and irritation. It is therefore also important to manage the source of the irritation and then is treated by conservative surgical excision. If the lesion is treated without removing the irritation source, the lesion will recur.

**REFERENCES**