



CASE REPORT

PLAQUE TYPE ORAL VERRUCOUS HYPERPLASIA AND IRRITATIONAL FIBROMA: A REPORT OF CONJOINT OCCURRENCE

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ABSTRACT:

Localized overgrowth of oral soft tissues is a most common pathology encountered in routine dental checkup. The etiology is most commonly from local irritants and trauma. Oral verrucous hyperplasia is a precancerous lesion that may transform into either an oral verrucous carcinoma or as an oral squamous cell carcinoma. Irritation fibroma is a soft tissue overgrowth seen anywhere in the oral cavity with known etiology such as trauma, overhanging margins and local factors such as plaque and calculus. This paper reports a case of simultaneous occurrence of verrucous hyperplasia on right buccal mucosa and fibroma on the left buccal mucosa in a 52 years old male patient. These lesions were managed by an excisional biopsy and were diagnosed as oral verrucous hyperplasia and Fibroma after histopathological examination.

Keywords: Verrucous hyperplasia, fibroma, excisional biopsy

INTRODUCTION

Oral Verrucous Hyperplasia is a premalignant lesion which is mainly seen in buccal mucosa. The other major sites are tongue, palate, gingiva and labial mucosa based upon the degree of occurrence. Almost more than 90% of these lesions are associated with patients who consume areca quid. Additionally, 89% of these lesions are seen in smokers irrespective of whether they consume areca quid or not. On the other hand, irritational fibroma is also known as focal fibrous hyperplasia, which is mainly seen in anterior maxillary region. The term “inflammatory hyperplasia” is usually designated for this lesion that histologically represent inflamed fibrous and granulation tissue. This paper reports a case of Verrucous Hyperplasia and Irritation fibroma in a 52 year old male in relation to right and left buccal mucosa.

CASE REPORT

A 52 year old male (**Fig 1**) reported to the outpatient department with a chief complaint of a mass on inner aspect of right and left cheek region since 4 years. Both lesions were initially small in size and was flat but gradually increased to the present size, with no



history of bleeding, paraesthesia and pain. Intraoral clinical examination revealed a unilocular, exophytic growth with irregular surface on the right buccal mucosa at the occlusal level against 15, 16, 45 and 46 (**Fig 2**) measuring approximately 0.95 cm x 1.2 cm in size. The overlying mucosa was whitish in color, firm in consistency, sessile and non-tender. On the left buccal mucosa, the lesion revealed a solitary, pink, sessile, firm and smooth surfaced nodule approximately 0.95 cm x 1.2 cm in size (**Fig 3**). On the basis of history and clinical findings, a provisional diagnosis of squamous cell papilloma of right buccal mucosa and irritational fibroma on the left buccal mucosa were given. The list of differential diagnosis included verruca vulgaris, verrucous hyperplasia, focal epithelial hyperplasia, verruciform xanthoma and papillary squamous cell carcinoma for the right lesion and lipoma, benign salivary gland tumor, Osteosarcoma for the left lesion. Complete blood investigation revealed all the parameters were within normal limits. As the patient complained discomfort during eating, excisional biopsy was advised for both lesions. The excised tissues (**Fig 4, 5**) were sent for histopathological examination. It revealed marked hyperkeratosis and hyperplasia of epithelium with papillomatosis for the right buccal mucosa lesion which was suggestive of verruciform hyperplasia (**Fig 6a, 6b**) and collagen fibers interspersed with varying number of fibroblasts, which in turn were covered with a smooth layer of stratified squamous epithelium on left buccal mucosa (**Fig 7a, 7b**), all the features being suggestive of fibroma. Patient was reviewed after one week. Both lesions were completely resolved uneventfully.



Figure 1 Patient's profile showed no swelling.

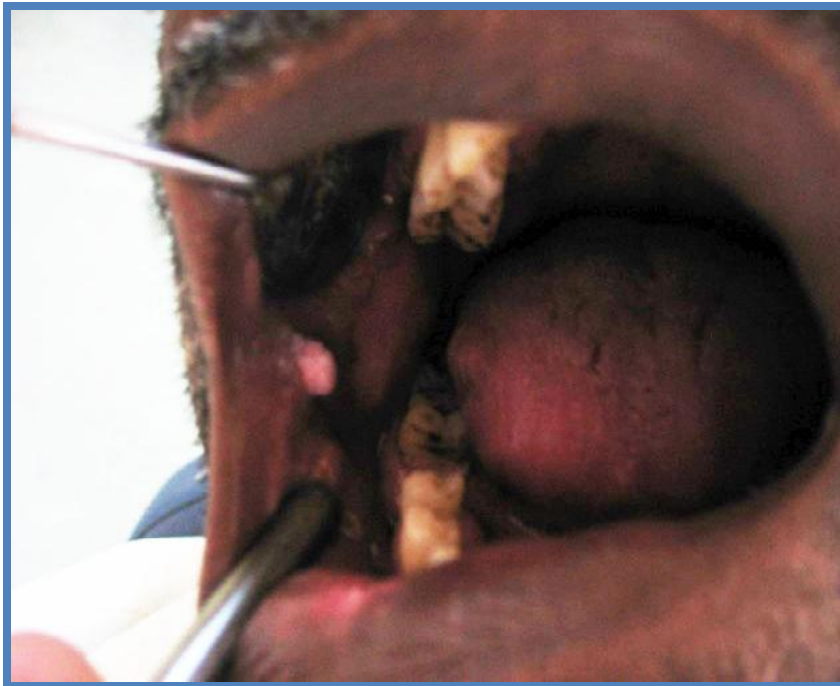


Figure 2 A white coloured growth on right buccal mucosa



Figure 3 Pinkish, smooth surfaced lesion on left buccal mucosa



Figure 4 Gross Specimen of right lesion



Figure 5 Gross Specimen of left lesion

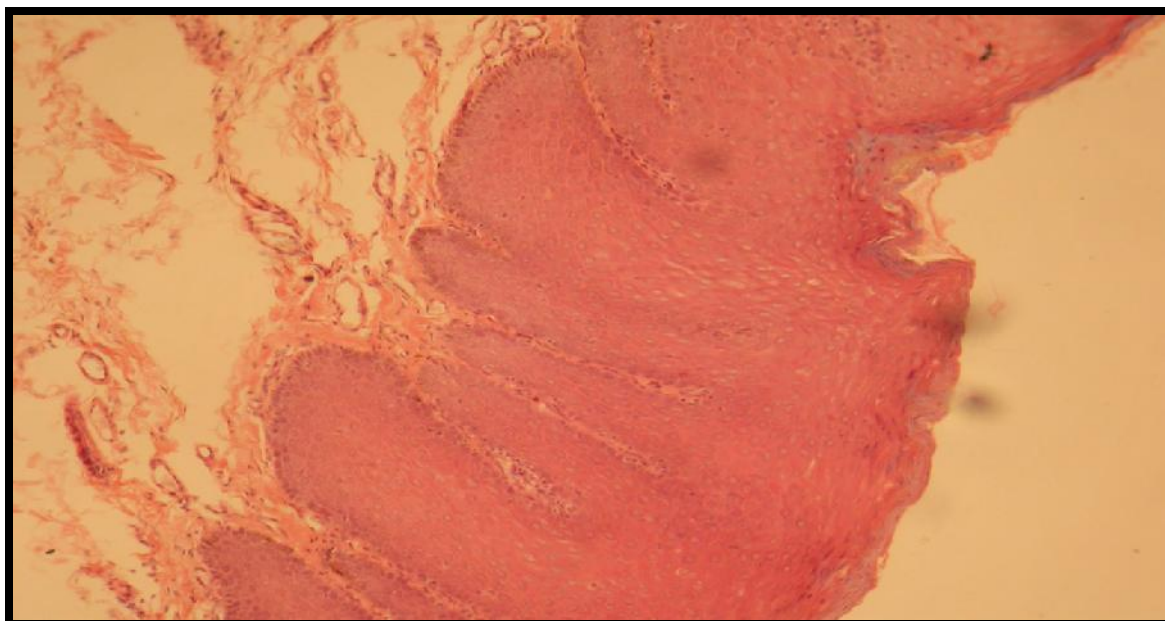
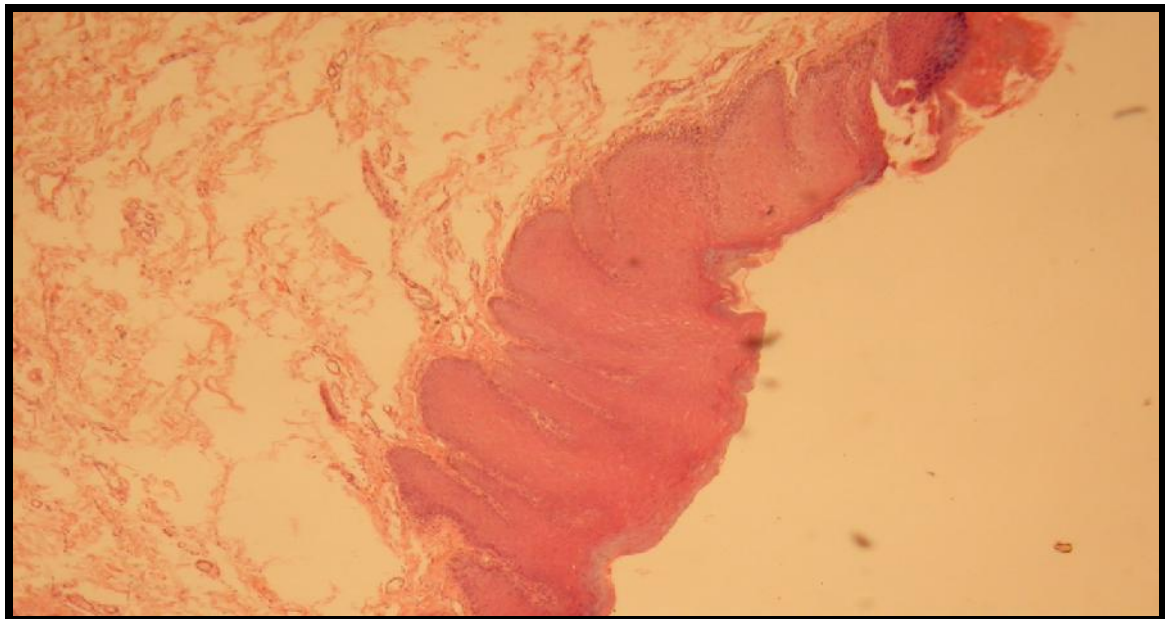


Figure 6a,6b Marked hyperkeratosis and hyperplasia of epithelium with papillomatosis
[10X ,40 X]

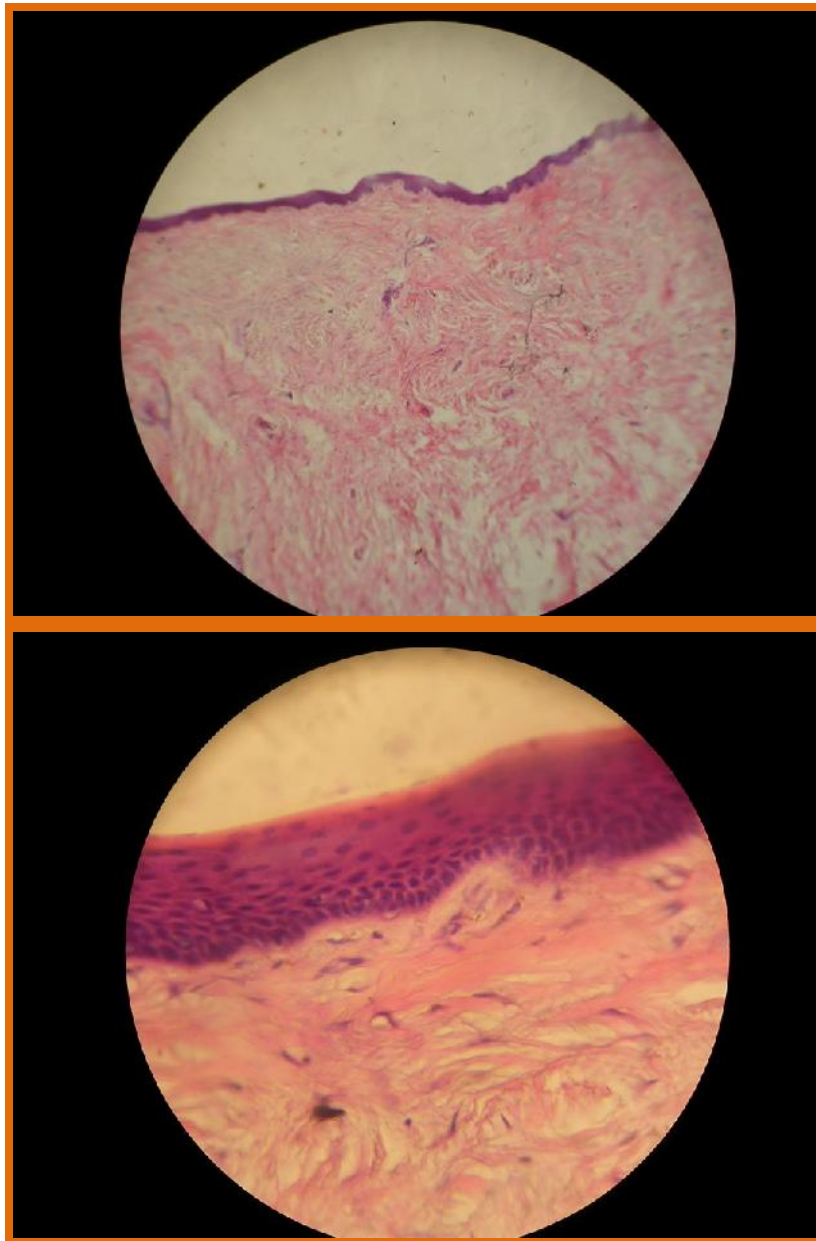


Figure 7a,7b Collagen fibers interspersed with varying number of fibroblasts [10X ,40 X]

DISCUSSION

Oral verrucous hyperplasia is a precancerous lesion that can lead to two important lesions such as oral verrucous carcinoma or oral squamous cell carcinoma at the rate of 3.1% based upon a recent study done in Taiwanese patients suffering from verrucous hyperplasia. The mechanism behind malignant transformation of these lesion is based on inducible nitric oxide synthase protein, as it was noted that high expression of this protein was present in approximately 80% of the cases. Moreover, other mechanisms are due to higher expression of IL-1 , glutathione S-transferase pi and allelic loss at loci on 7 chromosome arms.¹ clinically, the lesion is manifested as a whitish or pink elevated oral mucosal plaque or mass with either verrucous or papillary surface. The lesion is more



common in the age range of 24-80 years. More than 50% of the lesions are seen in the higher extreme of age. When it occurs the average size of the lesion would be 0.3cm to 5cm.²In our patient, clinically and histopathologically, we diagnosed plaque type oral verrucous hyperplasia. Researchers in their study found that verruciform leukoplakia lesion is histopathologically similar to Oral verrucous hyperplasia, based on which the term Verruciform hyperplasia was coined. This is in concurrence with our case.

On the contrary, Fibroma is a benign soft tissue tumor found in the oral cavity. The most common pathogenic mechanism of this lesion is a submucosal response to trauma from teeth or dental prosthesis. It was first reported in 1846 as fibrous polyp and polypus, found in 1.2% adults.³The female predilection is 66% compared to males. It is usually asymptomatic and found commonly in third and fourth decades. The most common site of benign lesion is buccal mucosa, tongue and lower labial mucosa.⁴The treatment of choice is the complete surgical excision of lesion. In addition, it is mandatory to eliminate local etiological factors such as plaque and calculus.⁵

CONCLUSION

The prognosis is fairly good for plaque type oral verrucous hyperplasia when compared with mass typed variety. This lesion can progress multi focally with proliferative features and behaves in a more aggressive manner. So complete excision is the only treatment choice. Irritational fibroma is an asymptomatic benign soft tissue tumor and patients may be unaware during the initial stages. When the lesion reaches a considerable size, excisional biopsy is the sole treatment modality along with the elimination of causative factors. Additionally, as there is a chance of recurrence, post-surgical follow-up is unavoidable.

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