

Case Report

# A case report of a recurring verrucous hyperplasia: Revisit a recurrence

Jintu Elsa Markose<sup>1</sup>, R. Sruthi<sup>1</sup>, C. Balamanikandasrinivasan<sup>3</sup>, Mathew Jacob<sup>2</sup>

<sup>1</sup>Intern, <sup>2</sup>Associate Professor, Department of Oral Pathology and Oral Microbiology, <sup>3</sup>Associate Professor, Oral and Maxillofacial Surgery, Vinayaka Mission's Sankarachariyar Dental College, Vinayaka Mission's Research Foundation (Deemed to be University), Salem, Tamil Nadu, India.



**\*Corresponding author:**

Dr. Mathew Jacob, MDS, PhD,  
Associate Professor,  
Department of Oral Pathology  
and Oral Microbiology,  
Vinayaka Mission's  
Sankarachariyar Dental College,  
Vinayaka Mission's Research  
Foundation (Deemed to be  
University), Salem, Tamil Nadu,  
India.

[docere\\_mathew@yahoo.co.in](mailto:docere_mathew@yahoo.co.in)

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## ABSTRACT

Verrucous lesions are diagnostically challenging entities that are known to mimic a variety of potentially malignant as well as malignant disorders both clinically and histologically. Therefore, it would be wise not to make decisions based on clinical findings alone. Thorough clinical examination coupled with detailed history and histopathological correlation is required which is strongly suggested to render appropriate diagnosis. A case report of recurrent verrucous hyperplasia is presented in this article emphasizing the aforementioned.

**Keywords:** Verrucous hyperplasia, Recurrence, Verrucous lesions, Denture hyperplasia, Premalignant lesion

## INTRODUCTION

Verrucous hyperplasia is a potentially malignant lesion that clinically usually presents as a white exophytic papillary growth associated with a history of tobacco consumption. These lesions are diagnostically challenging entities that can mimic a variety of potentially malignant lesions<sup>[1]</sup> and malignant lesions<sup>[2]</sup> both clinically and histopathologically. This entity was first described by Shear and Pindborg in 1980 and was originally called oral florid papillomatosis.<sup>[3]</sup> Buccal mucosa is the most common site (57.89%) followed by the tongue, gingiva, and alveolar mucosa<sup>[4]</sup> seen to occur with a common age predilection being the fourth decade.<sup>[5]</sup> Although the name itself suggests the diagnosis, these lesions often require microscopic examination to confirm the diagnosis. These lesions have high propensity of recurrence and malignant transformation which necessitates long-term follow-up. Predominantly, verrucous hyperplasia occurs with pre-existing deleterious habits such as betel nut and tobacco consumption. This is an interesting case of recurrent verrucous hyperplasia presented without any of aforementioned habits.

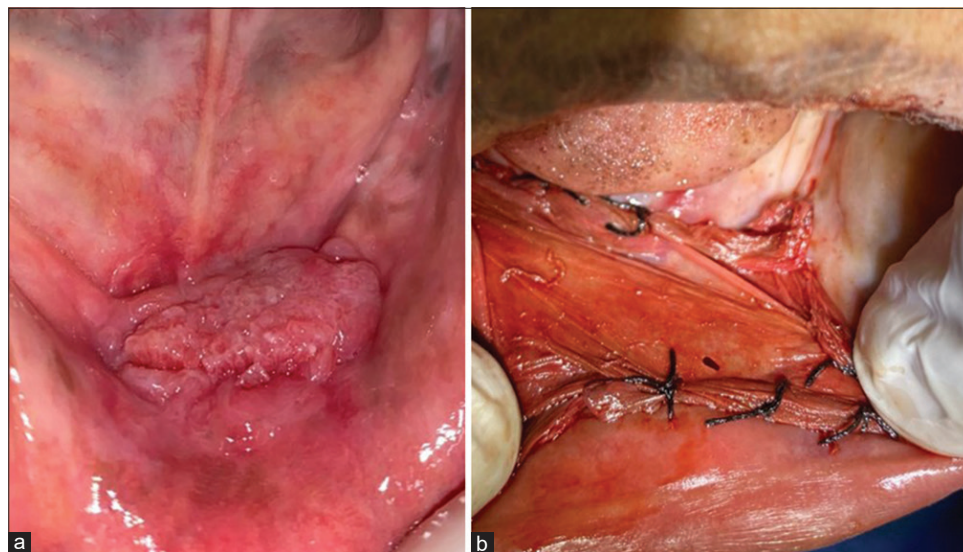
This article presents an interesting case report of verrucous hyperplasia in an edentulous patient who presented with a history of recurrence.

## CASE REPORT

A 75-year-old female patient had reported to a dental clinic with a chief complaint of ill-fitting lower denture for the past 1 month. Patient's history revealed that she was a denture wearer for the past 15 years and changed her lower denture 4 times due to the ill-fitting nature of the

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**Figure 1:** First presentation, papillary growth in the lower vestibule (a); immediate post-operative (b).

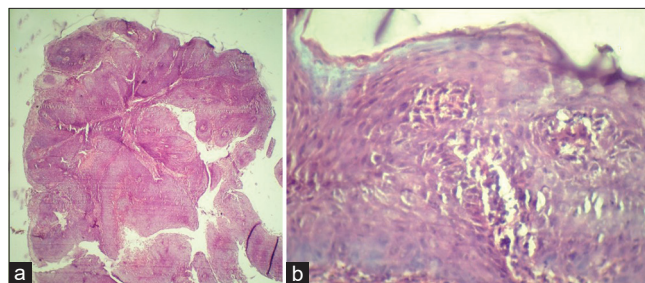
dentures. Three months before the first visit, the patient had observed that her lower denture had become loose and was experiencing difficulty in eating and speaking. Intraoral examination revealed a slow-growing white papillary growth in the lower anterior region in relation to teeth 33–42 measuring approximately  $4 \times 3$  cm, as shown in [Figure 1a]. The lesion was non-tender and not scrapable. Submental and submandibular lymph nodes were not palpable. Based on the chief complaint and the clinical findings, a provisional diagnosis of denture induced hyperplasia was given. An excisional biopsy [Figure 1b] was done and the specimen was sent for histopathological examination.

The histopathology report suggested hyperplastic parakeratotic stratified squamous epithelium with basal cell hyperplasia, with epithelial cells exhibiting hyperchromatism, increased nuclear-cytoplasmic ratio, mild pleomorphism, and with acanthosis [Figure 2a and b]. The underlying connective appeared fibrillar and scanty showing blood vessels. The histopathological examination suggested verrucous hyperplasia.

After 1 month, the patient reported with recurrence of the lesion on the same site [Figure 3]. Intraoral examination revealed a similar lesion but smaller in size. The lesion was excised with wider and deeper margins than the earlier biopsy before and the histopathology examination suggested verrucous hyperplasia [Figure 4a and b] again. The patient was explained about the recurrent nature of this lesion and advised to be in periodic follow-up.

## DISCUSSION

Verrucous hyperplasia is a potential lesion that has a high tendency to transform into an epithelial malignancy such as verrucous carcinoma or oral squamous cell carcinoma.<sup>[5]</sup>

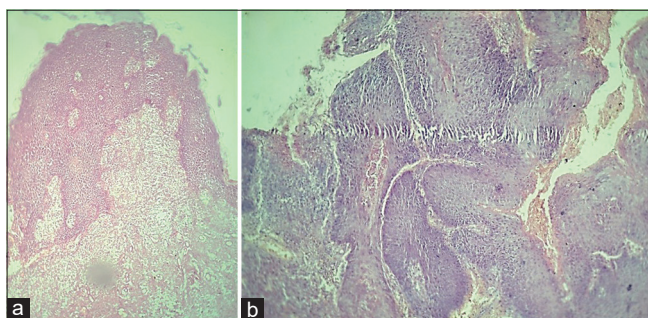


**Figure 2:** Photomicrograph showing hyperplastic parakeratinized stratified squamous epithelium with basal cell hyperplasia, with epithelial cells exhibiting hyperchromatism, increased nuclear-cytoplasmic ratio, and mild pleomorphism, with acanthosis, H & E stain. (a)  $4\times$  and (b)  $40\times$ .

Common etiologies have been attributed toward lesions like non-smoking chewable forms of tobacco with betel quid chewing. Another entity associated with such habits is oral submucous fibrosis.<sup>[6]</sup> Verrucous hyperplasia displays pathognomonic clinical features, namely, white keratotic, non-scrapable, and exophytic lesions exhibiting the characteristic papillary projections of varying sizes with the largest documented size of 6 cm in its greatest diameter.<sup>[1]</sup> The lesion also often presents as coalescent warty papules at amputated sites.<sup>[4]</sup> Histopathologically, these lesions exhibit verrucous projections, which are noted as two main types, the sharp (21%) and the blunt (79%). The sharp variety is seen as long, narrow, and predominantly orthokeratotic epithelium while the blunt variety shows broad, short, and mostly parakeratotic epithelium.<sup>[1]</sup> Other histopathological features observed are increased width of stratum spinosum and broad rete ridges with an inflammatory response in subepithelial connective tissue primarily in the form of lymphocytes, plasma cells, and histiocytes.<sup>[1]</sup>



**Figure 3:** Second presentation, recurring papillary growth in primary site.



**Figure 4:** Photomicrograph showing keratotic epithelium exhibiting acanthosis and basal hyperplasia, H & E stain, (a) 4× and (b) 10×.

The literature has it that shown that verrucous hyperplasia shows high propensity of recurrence despite it being excisionally removed. Differential diagnosis of verrucous lesions includes proliferative verrucous leukoplakia, verrucous carcinoma, and squamous cell carcinoma.<sup>[5]</sup> The diagnosis of proliferative verrucous leukoplakia is given when the diagnostic criteria show that this lesion involves multiple sites.

In this presenting case, the history of removable denture use for 15 years, its ill-fitting nature, and the absence of habits such as betel nut consumption and tobacco chewing advocated the clinical diagnosis of the lesion as denture hyperplasia. However, in both excisional specimens, the characteristic histopathological features of verrucous hyperplasia were observed which emphasized the importance of histopathological diagnosis. The recurrent nature of the lesion and its potential for malignancy mandates requires regular periodic follow-up. The patient was advised not to wear the lower denture for 3 months and to be

in periodic follow-up. There appears further recurrence till now after 2 months of follow-up.

## CONCLUSION

The presenting case report exemplifies the need for correlation of the history, clinical, and histopathological features for diagnosis that would enable appropriate management.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

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