

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 × 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.^[5]

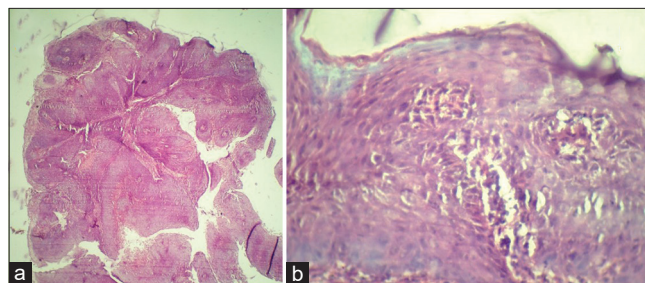


Figure 2: Photomicrograph showing hyperplastic parakeratinized stratified squamous epithelium with basal cell hyperplasia, with epithelial cells exhibiting hyperchromatism, increased nuclear-cytoplasmic ratio, and mild pleomorphism, with acanthosis, H & E stain. (a) 4× and (b) 40×.

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.^[6] 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.^[1] The lesion also often presents as coalescent warty papules at amputated sites.^[4] 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.^[1] 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.^[1]



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

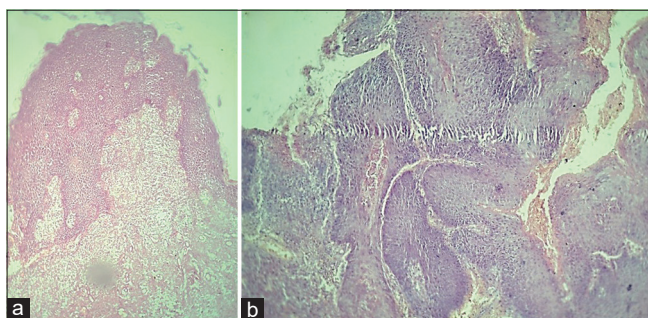


Figure 4: Photomicrograph showing keratotic epithelium exhibiting acanthosis and basal hyperplasia, H & E stain, (a) 4× and (b) 10×.

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.^[5] 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.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Hazarey VK, Ganvir SM, Bodhade AS. Verrucous hyperplasia: A clinico-pathological study. *J Oral Maxillofac Pathol* 2011;15:187-91.
2. Murrar VA, Batsakis JG. Proliferative verrucous leukoplakia and verrucous hyperplasia. *Ann Otol Rhinol Laryngol* 1994;103 8 Pt 1:660-3.
3. Gnepp D, Bishop J. *Diagnostic Surgical Pathology of the Head and Neck*. 2nd ed. Philadelphia, PA: Saunders, Elsevier Publishers; 2009. p. 10.
4. Scheinfeld N, Yu T, Lee J. Verrucous hyperplasia of the great toe: A case and a review of the literature. *Dermatol Surg* 2004;30:215-7.
5. Akrish S, Eskander-Hashoul L, Rachmiel A, Ben-Izhak O. Clinicopathologic analysis of verrucous hyperplasia, verrucous carcinoma and squamous cell carcinoma as part of the clinicopathologic spectrum of oral proliferative verrucous leukoplakia: A literature review and analysis. *Pathol Res Pract* 2019;215:152670.
6. Wu MH, Luo JD, Wang WC, Chang TH, Hwang WL, Lee KH, *et al.* Risk analysis of malignant potential of oral verrucous hyperplasia: A follow-up study of 269 patients and copy number variation analysis. *Head Neck* 2018;40:1046-56.

How to cite this article: Markose JE, Sruthi R, Balamaniandasrinivasan C, Jacob M. A case report of a recurring verrucous hyperplasia: Revisit a recurrence. *J Acad Dent Educ* 2022;8:29-31.