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# Idiopathic proliferative verrucous leukoplakia: report of a clinical rarity

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## DESCRIPTION

Proliferative verrucous leukoplakia (PVL) is a rare and specific disease that differs from oral leukoplakia, which is neither a delimited lesion nor a condition.<sup>1</sup>

A 56-year-old, healthy steel plant male worker reported with a chief complaint of painless white patches on the right buccal mucosa and burning sensation in the same region since 1 year.

History and general physical examination revealed no relevant findings and also no tobacco-chewing habit was evident, except for using herbal tooth powder. On examination, a white lesion with multiple peaks on its surface was seen on the right buccal mucosa and vestibule, which were coarse, tough, non-scrapable and non-tender on palpation (figure 1). The surrounding mucosa was normal in structure and colour.

Routine haematological investigation, PCR test for human papilloma virus (HPV) and incisional biopsy were performed.

Haematological investigation values were found within normal limits while HPV was not detected by PCR.

The H&E-stained sections revealed proliferative corrugated hyperkeratosis, acanthosis, increased mitoses, broad rete ridges and inflammatory cell infiltrated connective tissue stroma (figures 2 and 3) which indicated a diagnosis of PVL with mild dysplasia.

Histopathological continuum encompasses four stages—plaque of hyperkeratosis without dysplasia, verrucous hyperplasia, verrucous carcinoma and finally oral squamous cell carcinoma.



Figure 1 Photograph showing the lesion.

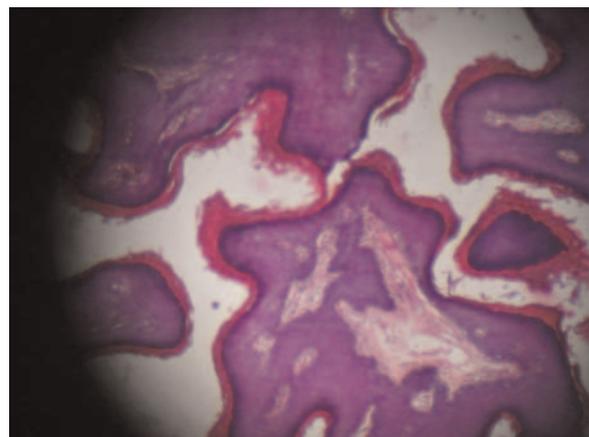


Figure 2 H&E-stained section.

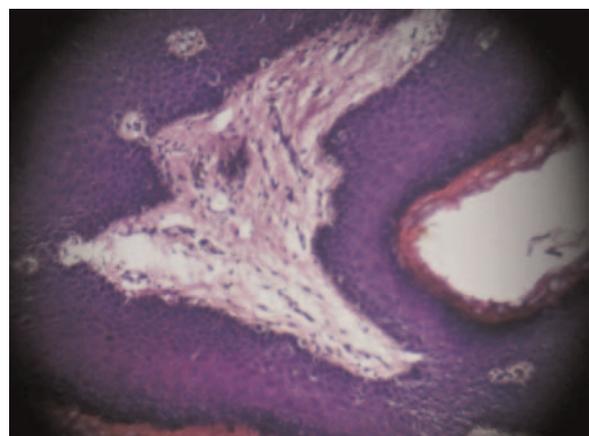


Figure 3 Magnified H&E-stained section.

PVL is often seen in middle-aged women<sup>2</sup> and the female-to-male ratio is roughly 4:1. PVL is not strongly associated with alcohol or tobacco use, but the possible aetiology includes HPV, Epstein-Barr virus and immunity.<sup>2</sup> PVL initially presented as a solitary flat homogenous leukoplakia, while others present with multiple involved sites. The recurrence after treatment is commonly seen. Differential diagnosis includes frictional keratosis, homogenous leukoplakia, papilloma and verrucous carcinoma.

Treatment recommendation includes multiple techniques such as CO<sub>2</sub> laser surgery, surgery with radiotherapy, cryotherapy, retinoid, systemic vitamin A, bleomycin and photodynamic therapy.<sup>3</sup> Our patient is under follow-up to observe the prognosis of the treatment and to monitor the histopathological changes, as the lesion has a high potency to turn into carcinoma.

## Learning points

- ▶ The purpose of this article is to inform the dentist that histopathological examination is mandatory along with that, assessment of immune status and viral infection status, for diagnosis of proliferative verrucous leukoplakia.
- ▶ Regular follow-up should be done to monitor the histopathological changes, as the lesion has a high potency to turn into carcinoma.

**Competing interests** None.

**Patient consent** Obtained.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Singh AP, Chaitra TR, Kulkarni AU, Jathar PN. Idiopathic proliferative verrucous leukoplakia: report of a clinical rarity. *BMJ Case Reports* 2012;10.1136/bcr-2012-006194, Published XXX

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