

# ORAL LICHEN PLANUS ASSOCIATED WITH PAPILOMAVIRUS: CASE REPORT

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## ABSTRACT

Oral lichen planus (OLP) is a common chronic systemic disease, affecting 0.5% to 2.2% of the population. It presents, more commonly, in two clinical forms: reticular and erosive, who clinical diagnose is often most easily, with treatment, when symptomatic; use of immunosuppressive drugs is the treatment of choice in these cases. The literature report an association of viral infections with OLP. However, scientific evidence is lacking. The aim of the present study is to report a case of OLP with lingual dorsum in a 28-year-old leucoderma patient, who had been diagnosed through clinical examination and biopsy of lingual papilloma and, subsequently, genital papilloma (HPV) about a year after the appearance of the lichen planus. This association highlights a real need for further research to determine whether the relationship between OLP and viral diseases of the oral cavity is coincidental or not.

**KEYWORDS:** Lichen Planus, Diagnosis, Oral, Pathology, Papillomaviridae.

## 1. INTRODUCTION

Oral lichen planus (OLP) is a common chronic systemic disease that is characterized by being mucocutaneous, autoimmune, though of uncertain etiology<sup>1,2,3</sup>, which may attack the patient's scalp, nails, genital mucosa, but is mainly found in two sites: the skin and the mouth<sup>4</sup>. The prevalence of oral lichen planus ranges between 0.5% and 2.2% of the population and, considered the most common cutaneous disease involving the oral mucosa<sup>5</sup>. The two most common clinical forms of OLP are: reticular and erosive<sup>1,2,5</sup>. The reticular form is the one most frequently observed, characterized by the presence of white striae (Wickham striae) that are intertwined (reticular appearance) or by papules of the same color

which have a predilection for the jugal mucosa (usually bilaterally), however it may also occur in other sites<sup>6</sup>. It is important to carry out a biopsy and is part of the diagnostic process<sup>5</sup>. Histologically, OLP presents with a predominantly lymphocytic inflammatory infiltrate, in single file, at the top of the conjunctive tissue, hydropic degeneration of the basal membrane are some of the main features of lichen planus. The presence of parakeratosis, acquisition of a granular layer, sharp epithelial ridges (sawtooth format) and the presence of Civatte bodies (apoptotic keratinocytes) are also histopathological characteristics of oral lichen planus<sup>7</sup>. Although OLP is normally asymptomatic, it may cause symptoms that vary from a slight burning sensation to severe pains, interfering with speech, eating and swallowing<sup>1</sup>, with treatment restricted to cases which are symptomatic, and must be treated if the symptoms are significant, the most effective drugs for this purpose being immunosuppressants<sup>8</sup>. Even though some authors attribute an association of OLP with viral afflictions such as Epstein Barr, human papillomavirus and herpes simplex<sup>9,10,11</sup>, as well as their malignant transformations, even though there may be a potentially significant casual association<sup>12</sup>, they still lack scientific substantiation.

## 2. CASE REPORT

Caucasian male, aged 28, from Recife in the Brazilian state of Pernambuco, a software engineer by profession, attended a private clinic around a year ago complaining of a "small lump" on his tongue, which had appeared approximately 6 months previously.

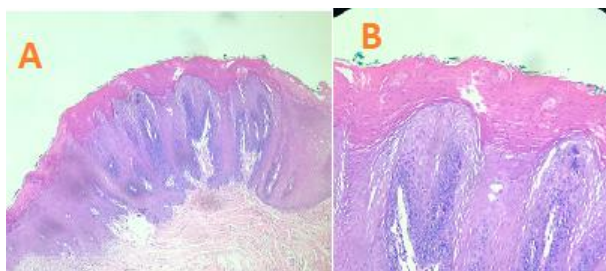
On physical examination, he presented with a whitish, verrucous lesion, pedunculated in the right dorsal region, close to the lateral edge and measuring approximately 1 cm at its largest diameter (Figure 1).

Based on the clinical appearance of the lesion, we settled on a diagnostic hypothesis of papilloma. In the anamnesis, he also said he had a similar lesion on his genitalia. We proposed an excisional biopsy of the

lingual lesion under local anesthetic.



**Figure 1.** Initial appearance of the lesion.



**Figures 2A and 2B.** Photomicrograph of the specimen of the initial lesion consistent with squamous papilloma.



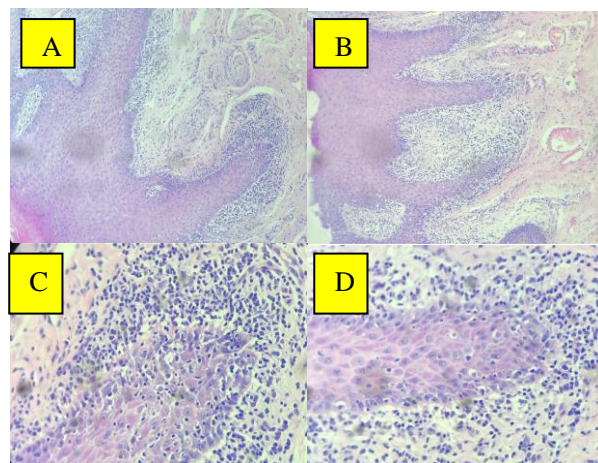
**Figure 3.** Tongue lesion 1 year after removal of the papilloma.

After reading, assenting to and signing the Free and Informed Consent form, routine preoperative examinations were requested and, as they were within the pattern of normality, the procedure was carried out. The histopathological examination was consistent with squamous papilloma (Figures 2A and 2B), definitively

supporting our diagnostic hypothesis of papilloma. After approximately one year, he came back into our care complaining of a whitish lesion of reticular appearance on the lingual dorsum (Figure 3), which was difficult to remove scraping with a wooden spatula.

Thus, we settled on a diagnostic hypothesis of leukoplakia or lichen planus. Following a second reading, assent and signature of the Free and Informed Consent form, we performed an incisional biopsy that was consistent with lichen planus (Figures 4A, 4B, 4C and 4D). In Figures 4A and 4B, the mucosa we observed covered by a squamous epithelium, exhibiting simple hyperplasia, with papillomatosis and hyperkeratosis, without atypia.

Then in Figures 4C and 4D, subepithelial conjunctive tissue we observed populated by a dense lymphocytic infiltrate with foci of colliquation of the basal layer and areas of exocytosis where, by associating the clinical and histopathological aspects of the case, a definitive diagnostic hypothesis of lichen planus was established.



**Figures 4A, 4B, 4C and 4D.** Histopathological aspects of the specimen.

### 3. DISCUSSION

OLP is a common lesion of the oral cavity which appears most frequently in reticular (Wickham striae) or erosive form<sup>1,2,5</sup>. Normally asymptomatic, it only requires treatment when there is symptomatology, normally a slight burning sensation to severe pains that interfere with speech, eating and swallowing<sup>1</sup>. In these cases, the specific treatment indicated, usually based on immunosuppressants<sup>8</sup>. Some authors<sup>9-12</sup> have linked OLP to viral infections such as HPV. In the reported case, we confirmed an incidentally or not, an association of this type.

Accordingly, this case report can join with others with the greater purpose of promoting the development of studies with a view to obtaining a more significant number of reported cases in the literature in respect of the association of OLP with viral infections, principally HPV and the Herpes virus, which are equally common in the oral cavity.

## 4. CONCLUSION

OLP is a common lesion of the oral cavity. In the majority of cases, it is asymptomatic, only requiring treatment in cases where there are significant symptoms. The dental surgeon must be attentive to the precise diagnosis of the lesion, carry out biopsies if in any doubt about the diagnosis and seek to verify a potential association of the lesion with previous systemic viral infections in the oral cavity, with the aim of expanding the observational spectrum of the pathology.

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