# ORAL LICHEN PLANUS IN THE PRESENCE OF DYSPLASIA: CASE MANAGEMENT WITH SUPPORTIVE THERAPY

## Clinical tip

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## ORAL PATHOLOGY

Oral lichen planus is an autoimmune disease that primarily affects the oral mucosa, with a prevalence in the general population of between 1-2%. It is listed among the potentially malignant diseases of the oral cavity (1). Besides the mucosa, it can affect the skin in about 10-15% of cases, and the genital mucosa, especially in women (about 20% of cases). Recent studies have also highlighted the involvement of the esophageal mucosa, sometimes overlooked and associated with hyperemia due to gastroesophageal reflux, as well as the nail tissue (2, 3). The basic lesion of lichen planus is the papule (a small raised white lesion, non-removable, less than 3 mm in diameter), but generally, the appearance is highly variable, and the lesions are almost always bilateral and symmetrical.

Two types of lichen planus are distinguished based on clinical manifestations: white lichen (papular, reticular, plaque) and red lichen (erosive, atrophic, bullous) (1). The most commonly observed form is the reticular type, where the papules join to form true striae, or when they are numerous, plaques. Generally, after the diagnosis is made based on clinical evaluation and always accompanied by a histological evaluation on an incisional biopsy, no treatment is necessary if asymptomatic, but only follow-up every 3-6 months (4).

The erosive form, however, presents predominantly with often painful red patches, indicating superficial tissue loss, often accompanied by a minimal white component (reticules or plaques), sometimes completely absent. This variant, often highly symptomatic, requires treatment and is more closely associated with malignant transformation (1, 4). The gold standard for treating this pathology is the application of topical corticosteroids or immunosuppressants, combined with topical antifungals to avoid the risk of fungal infection. However, other treatments have been proposed in the literature, especially for refractory cases, as adjunct therapy, and in cases of allergy or inability to take the described drugs, natural therapies such as aloe vera, curcuma longa, consumption of green and black tea, LLLT (Low Level Laser Therapy), and PDT (Photodynamic Therapy) (5).

The risk of developing squamous cell carcinoma in patients diagnosed with lichen planus is higher than 1% of cases (6). Therefore, a histological diagnosis and constant patient follow-up are necessary to detect any dysplastic or neoplastic changes.

### Diagnosis with Fluorescence

To guide the clinician in this process and evaluate the execution of a possible new incisional biopsy, autofluorescence devices are available: lights with a specific wavelength that utilize the reflective capacity of altered mucosal tissues, highlighting sites where there is a loss of fluorescence. The clinician will observe a darker area (7). Among the devices is a system that uses special glasses and the light from a curing lamp (wavelength 460 nm) (Goccles, Pierrel), which is then pointed and activated directly on the oral tissues to be observed. Where the tissue is healthy, the mucosa appears green; in the presence of alterations, a dark green, brown, or black color (neoplasia) is observed (8).

## Clinical Case

A 64-year-old female patient, in good general health, came to our observation with a histological diagnosis of oral lichen planus made several years earlier, due to the presence of a white lesion on the palate, which she had noticed expanding recently. Clinical observation reveals erythematous, erosive lesions, bilateral white striations, but particularly on the right hard palate, a white, verrucous plaque with irregular borders and asymptomatic (fig. 1).

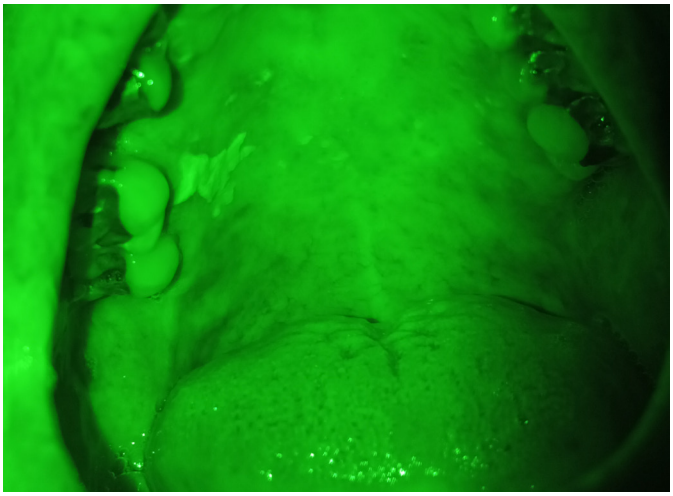
(figure 1)

An incisional biopsy of about 6 mm in maximum diameter is performed with a cold blade, and the specimen is preserved in 4% buffered paraformaldehyde for histological evaluation. The analysis revealed the presence of leukoplakia (to be placed in the already analyzed clinical context) with focal low-grade dysplasia. In the subsequent observation, the lesion appears with the same dimensions as before (fig. 2).

An observation with the Goccles system is then performed. After darkening the room, having the patient wear protective glasses and wearing the optical device, a LED light, 460 nm wavelength, 7 watts power, about 5 cm from the palatal tissue is activated *(the suggested variable distance for viewing is between 5 and 10 cm depending on the lamp's power).*

(figure 2)

Through the glasses, the illuminated mucosa appears light green, not highlighting any alterations, despite the new expansion of the lesion (fig. 3).



(figure 3)

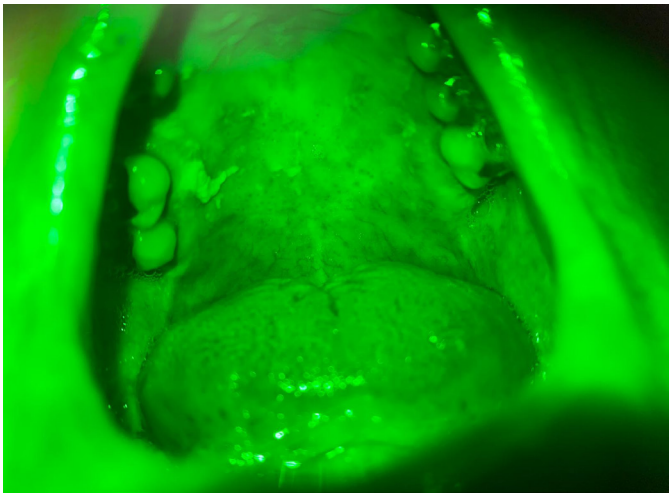
Therefore, the patient, given the total absence of symptoms and her passion for oriental beverages, is advised to regularly consume lukewarm black tea, at least twice a day for about a month, holding it as long as possible inside the oral cavity.

At the next check-up, the patient presents a slight reduction in the maximum diameter of the lesion and it is decided to continue with this supportive therapy.
At the three-month check-up from the biopsy,

there is a significant reduction in the white plaque (fig. 4).

(figure 4)

A new test with the Goccles device shows again healthy tissue throughout the palatal context, despite the presence of several plaques (fig. 5).



(figure 5)

The patient is currently under quarterly control, aware of the risks associated with potential malignant transformation.

## Discussion

Some studies have highlighted that tea consumption, being an antioxidant, is recommended in the treatment of potentially malignant lesions. In an Indian study, black tea consumption emerged as a factor associated with the reduction of dysplastic areas in patients diagnosed with leukoplakia (9).

In our case, in the asymptomatic patient, we preferred to suggest the consumption of a natural product rather than pharmacological therapy, keeping her under close observation. The reduction to about one-third of the dysplastic leukoplakic lesion could be strongly correlated with tea consumption.

Although performing new incisional biopsies in cases of lesion expansion associated with potentially malignant disorders is often necessary for histological checks, it is also true that incising a lesioned tissue, especially with dysplasia, exposes to a greater risk of cancerization in that area (10).

Therefore, the use of a system that can help us in deciding to take a new tissue sample is crucial, as in this case, where the execution of the test was critical to avoid re-incising the palatal lesion and reassuring the patient. Studies on the specificity and sensitivity of autofluorescence tools report very different values, sometimes exceeding 90%, other times recording values below 50% (7).

It has been noted that the main limitation is false positives, especially when those performing the test lack specific training in oral pathology.

Thus, the manufacturer offers the possibility to have the images, made even with a simple smartphone and a special filter to apply to the lens, viewed by experts in special odontostomatological pathology, who can guide the less experienced clinician in recognizing suspicious lesions.

The device was also very useful in selecting the biopsy piece to be taken, highlighting the darkest area and therefore more likely noteworthy for analysis (11).

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