

Therapeutic Test for Differential Diagnosis of Erosive oral Lichen Planus: a Case Report

Prova Terapêutica para Diagnóstico Diferencial de Líquen Plano Oral Erosivo: Relato de Caso

Prueba Terapéutica para el Diagnóstico Diferencial del Líquen Plano Oral Erosivo: Reporte de un Caso

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Abstract

Oral lichen planus (OLP) is a chronic inflammatory mucocutaneous disease, mediated by T cells, whose etiology remains unknown. Clinically, OLP can also be classified into reticular, papular, atrophic, and erosive, being erosive oral lichen planus (EOLP) the second most common. The objective of this study is to report a case of EOLP submitted to a therapeutic test. A 51-year-old female patient presented with a crusted ulcerative lesion on the lower lip, bleeding to the touch, and painful symptoms, within a five-year evolution. Extraoral examination revealed an ulcerated lesion on the lower lip, erosive and erythematous areas surrounded by whitish streaks, in addition to lip dryness. On intraoral examination, an erythematous macula was noted on the left buccal mucosa, also with fine keratotic streaks on its edges. A therapeutic test was performed using systemic and topical corticosteroids. After seven days, the patient presented a satisfactory response to this approach, concluding the primary diagnostic hypothesis of EOLP. The patient remains under follow-up, with no signs of recurrence of lesions. The therapeutic test is effective when clinical characteristics are carefully observed, allowing for plausible diagnostic hypotheses.

Descriptors: Diagnosis; Oral Lichen Planus; Therapeutics.

Resumo

O líquen plano oral (LPO) é uma doença mucocutânea inflamatória crônica, mediada por células T, cuja etiologia permanece desconhecida. Clinicamente, o LPO também pode ser classificado em reticular, papular, atrófico e erosivo, sendo o líquen plano oral erosivo (LPOE) o segundo mais comum. O objetivo deste estudo é relatar um caso de LPOE submetido a uma prova terapêutica. Paciente do sexo feminino, 51 anos, apresentou lesão ulcerativa crostosa no lábio inferior, sangramento ao toque e sintomatologia dolorosa, com evolução de cinco anos. O exame extraoral revelou uma lesão ulcerada no lábio inferior, áreas erosivas e eritematosas circundadas por estrias esbranquiçadas, além de ressecamento labial. No exame intraoral, notou-se uma mácula eritematosa na mucosa bucal esquerda, também com finas estrias ceratóticas em suas bordas. Foi realizado uma prova terapêutica com corticosteroides sistêmicos e tópicos. Após sete dias, o paciente apresentou resposta satisfatória a essa abordagem, concluindo a hipótese diagnóstica primária de LPOE. A paciente permanece em acompanhamento, sem sinais de recidiva das lesões. A prova terapêutica é eficaz quando as características clínicas são cuidadosamente observadas, permitindo hipóteses diagnósticas plausíveis.

Descritores: Diagnóstico; Líquen Plano Oral; Terapêutica.

Resumen

El líquen plano oral (LPO) es una enfermedad mucocutánea inflamatoria crónica mediada por células T, cuya etiología sigue siendo desconocida. Clínicamente, el LPO también puede clasificarse en reticular, papular, atrófico y erosivo, siendo el líquen plano oral erosivo (LPOE) el segundo más frecuente. El objetivo de este estudio es informar de un caso de LPOE que se sometió a un ensayo terapéutico. Una paciente de 51 años se presentó con una lesión ulcerosa costrosa en el labio inferior, que sangraba al tacto y presentaba síntomas dolorosos, de cinco años de evolución. El examen extraoral reveló una lesión ulcerada en el labio inferior, zonas erosivas y eritematosas rodeadas de estrias blanquecinas, así como sequedad labial. El examen intraoral reveló una mácula eritematosa en la mucosa bucal izquierda, también con finas estrias queratóticas a lo largo de sus bordes. Se realizó una prueba terapéutica con corticosteroides sistémicos y tópicos. Al cabo de siete días, la paciente mostró una respuesta satisfactoria a este abordaje, concluyendo la hipótesis diagnóstica primaria de LPOE. La paciente permanece en seguimiento, sin signos de recurrencia de las lesiones. La prueba terapéutica es eficaz cuando se observan cuidadosamente las características clínicas, permitiendo hipótesis diagnósticas plausibles.

Descritores: Diagnóstico; Líquen Plano Oral; Terapia.

INTRODUCTION

Oral lichen planus (OLP) is a chronic mucocutaneous inflammatory disease of unclear etiology and pathogenesis¹. OLP is characterized by T cell-mediated autoimmune response and altered epithelial keratinization cycle¹. Clinically, this disease is classified into reticular, papular, atrophic, and erosive². The erosive lesion (EOLP) is the second most common and reveals malignant potential in the general population². Despite the different forms of OLP, diagnosis is performed through incisional biopsy of the lesion followed by immunofluorescence analysis³.

The treatment of EOLP is a clinical challenge, as there is no cure for this disease⁴. However, there are therapeutic protocols for symptom control^{4,5}. The first therapeutic approach

for erosive forms is sublesional injection of betamethasone or triamcinolone acetonide, in a single or weekly dose⁶. Since EOLP has the worst prognosis⁵, in persistent cases, systemic administration of prednisone at a rate of 1 mg/kg of patient weight is indicated to minimize the possible adverse effects⁶. Another therapeutic possibility is photodynamic therapy, which is considered a minimally invasive, non-toxic, and safe treatment⁷.

Usually, treatment is assigned after the diagnosis has been made. The diagnosis of oral lichen planus is challenging due to the overlapping of clinical and histopathological features⁸. Thus, the clinical diagnosis is indicated when the lesion presents with Wickham's striae, which is a characteristic of the reticular form⁹. However, EOLP is commonly diagnosed through biopsy, followed by

histopathological analysis, which is the gold standard⁸.

Notwithstanding, another approach used is the therapeutic test, which applies the standard treatment to a previously established diagnostic hypothesis and its consequent confirmation through the remission of the disease itself or symptoms. This approach mainly performs presumptive diagnoses, based on epidemiological and clinical criteria¹⁰. Therefore, the objective of this study is to report a case of EOLP submitted to a therapeutic test.

CASE REPORT

A 51-year-old female patient with no comorbidities (American Society of Anesthesiologists 1) attended the dental office complaining of a painful lesion on her lower lip. In anamnesis, the patient reported lesion intermittence, within five years of evolution. She also reported having been previously treated with Aciclovir for Herpes Simplex 1 as prescribed by a dermatologist.

On extraoral examination, an ulcerative facial lesion was observed on the lower lip, which bled to touch and revealed painful symptomatology. The lower lip also presented erosive and erythematous areas surrounded by whitish striations and lip dryness. Intraoral examination revealed an erythematous macular lesion in the left buccal mucosa, and with thin keratotic striae on its edges (Figures 1 and 2).

Initially, the therapeutic test included systemic (prednisone 20mg, 8/8 hours for three days) and topical corticosteroid (0.05% clobetasol propionate three to four times a day for seven days) in lesions of the lip mucosa. After seven days, the patient presented a satisfactory response to the therapeutic test, confirming the primary diagnostic hypothesis of EOLP (Figures 3 and 4). The patient continues to follow up, uses lip balm and lip wetting, and remains with no signs of recurrence of lesions.



Figure 1: Initial clinical photograph: lower lip showing an ulcerative lesion and an extensive erythematous erosive plaque with atrophic areas surrounded by keratotic striae.



Figure 2: Initial clinical photograph: left buccal mucosa showing an erythematous macula with thin white striae on its edges.



Figure 3: Seven-day follow-up clinical photograph: lower lip showing lesion remission.



Figure 4: Seven-day follow-up clinical photograph: left buccal mucosa showing almost complete regression of the erythematous maculae.

DISCUSSION

The diagnosis of OLP through clinical examination is scientifically accepted¹¹, especially when the clinical features are like those classically described for the disease: the presence of slightly raised white striae and/or papules with multifocal distribution and bilateral arrangement¹¹. Therefore, many OLP cases are diagnosed during routine clinical examination, especially symptomatic ones¹².

Conversely, asymptomatic patients can remain undiagnosed for years¹². However, the most concerning aspect are when the clinical features confuse the diagnosis, as in the present case The patient reported to have been previously treated with Acyclovir to fight against the possible diagnosis of Herpes Simplex I. However, due to the lack of resolution, the patient came to the dental office with the main complaint of pain in the lower lip. After a detailed clinical examination of lips and the interior of the oral cavity, the diagnostic hypothesis of EOLP was considered together with actinic cheilitis as a differential diagnosis.

EOLP clinically manifests as erythematous and atrophic areas with different degrees of central ulceration, surrounded by fine white streaks emerging from their periphery¹³. As the patient presented dryness and fissures in the vermilion of the lower lip, actinic cheilitis was suspected, since these characteristics are classic of this disease¹³. However, due to white streaks emerging from well-demarcated erythematous areas on the periphery of the ulceration on the buccal mucosa and lower lip, which is compatible with EOLP, the therapeutic test was performed to confirm the diagnosis.

The therapeutic test is performed by applying standard treatment to a disease diagnosed with clinical examination. Therefore, topical administration of clobetasol is indicated since it has better results than dexamethasone¹⁴, and can be associated with systemic injection of prednisone, especially in persistent cases with a worse prognosis.^{5,6} Thus, this therapeutic combination proved to be effective in the remission and elimination of the disease in this case report.

In addition to corticosteroids, photodynamic therapy (PDT) is a promising therapy for treating oral lesions⁷. This therapy in lesions with the potential for malignancy and malignant transformations is still controversial and debated in the literature. However, Mostafa et al¹⁵ used PDT to treat EOLP and proved to be more effective in reducing pain and regressing the lesion when compared to corticosteroids¹⁵. Conversely, PDT promotes bad taste during gargling, muscle tiredness due to prolonged mouth opening, and chair-time consumption¹⁵, making its use limited.

Before starting any therapy, a thorough clinical examination of the oral cavity, observing the

characteristics of the lesions, is essential. This becomes evident when discussing the malignant potential of the EOLP. Some authors observed during the post-treatment follow-up period that oral squamous cell carcinoma (OSCC) appeared to be attributed to the malignancy of the EOLP^{16,17}. However, other authors suggest that the development of OSCC is due to the misdiagnosis due to the coexistence of EOLP and early-stage OSCC lesions¹¹. As EOLP manifests itself as a multifocal disease in most cases, it allows clinicians to observe the presence of an OLP lesion concomitant with OSCC^{11,12,18}. Therefore, to elucidate this issue, professionals should carefully examine patients with EOLP for early signs of OSCC and always encourage and keep them under follow-up.

CONCLUSION

The drugs used as a therapeutic test for this case were effective and fundamental for the diagnosis of EOLP. Careful clinical examination is essential and should always be performed for any type of lesion, especially for EOLP since there is still no consensus in the literature about its malignant potential. In addition, the therapeutic test is effective when clinical characteristics are carefully observed, allowing for plausible diagnostic hypotheses.

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CONFLICT OF INTERESTS

The authors declare no conflict of interest.

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Received 03/01/2024

Accepted 17/07/2024