



Oral Lichen Planus Affecting the Gingiva and Jugal Mucosa Concomitantly: Case Report

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Abstract

Lichen planus is a dermatological lesion that affects the skin and mucous membranes. In the oral cavity, several clinical subtypes can be observed, among them the reticular - the most common; papular; plaque; erosive; atrophic; and bullous. It is more predisposed to the female gender, from the 5th decade of life, and the most affected site is the jugal mucosa. The purpose of this article is to present a case of lichen planus that affected the keratinized gingiva and the jugal mucosa of a patient without cutaneous alterations. The clinical characteristics, histopathology, incidence and frequency, diagnosis, differential diagnosis, therapeutic modalities and prognosis of this lesion were discussed, emphasizing the importance of oral examination.

Keywords: Lichen Planus; Gingiva; Oral Diagnosis; Oral Pathology; Periodontics

Introduction

Lichen planus is a relatively frequent chronic immune-mediated inflammatory mucocutaneous disease, remaining intriguing as to etiopathogenesis and challenging as to treatment. This name - lichen - is of Latin origin, and connotes plant species, composed of symbiotic algae and fungi. It was first described by the British dermatologist Erasmus Wilson in 1869. Wilson credited the name to the lesions because of their similarity to plants [1-7]. Several clinical subtypes are observed, being reticular, papular, erosive, plaque, bullous, and atrophic [1-5,7,8]. There is a greater predisposition by the female gender, and affecting the age group starting in the 5th decade of life [2,3,9,10].

Regarding etiopathogenesis, the influence of emotional states (such as stress and anxiety), drug iatrogenesis or systemic diseases, particularly immune compromise or diabetes, on the initiation or clinical course of the disease has been postulated. However, the role of stress and anxiety has not yet been well defined and

appears to be speculation. The lesion appears as a cell-mediated immune response, in which there is interaction between epithelial cells and lymphocytes. Various drugs can induce lesions that are clinically similar to lichen planus. However, the terms mucositis or lichenoid dermatitis have been suggested, depending on the region affected, as well as lichenoid reactions such as lichenoid foreign body gingivitis when induced by other substances [1,2,4,7].

The clinical diagnosis of lichen planus is difficult and has a broad differential diagnosis. It is aided by histopathological diagnosis. Additionally, it is clinically important because of the possibility of malignancy [2,3,5,7].

Purpose of the Study

The purpose of this article is to present a case of lichen planus that affected the keratinized gingiva and the jugal mucosa of a patient, concomitantly, but without dermatological manifestations. The clinical features, incidence and frequency, diagnosis, differen-

tial diagnosis, therapeutic modalities and the prognosis of this lesion were discussed.

Case Report

A Caucasian female patient, 51-years-old presented to a private clinic complaining of gingival injury and oral burning.

Clinically, the patient presented a symptomatic erythematous lesion on the keratinized gingiva of the upper incisors, with gingival erosion on the gingival papilla between the upper left central and lateral incisors (Figure 1). Simultaneously, whitish, reticular-looking, asymptomatic lesions were observed on the jugal mucosa of the right side, which did not yield to scraping (Figure 2), with an evolution time of one month.



Figure 1: Symptomatic erythematous lesion on the keratinized gingiva of the upper incisors, with gingival erosion on the gingival papilla between the upper left central incisor and lateral incisor.

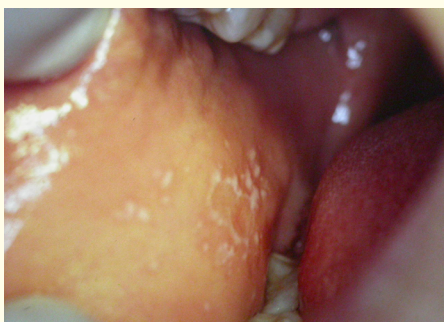


Figure 2: Asymptomatic whitish and reticular-looking lesions on the jugal mucosa of the right side.

Regarding the systemic condition, no alteration was found, although the patient reported stress and anxiety coinciding with the time of lesion evolution.

An incisional biopsy of the jugal mucosa lesion was performed under local anesthesia. The fragment of the lesion was fixed in 10% formalin and sent to the Laboratory of Surgical Pathology of the School of Dentistry of the University of São Paulo. The histopathological examination revealed a fragment of mucosa covered by stratified pavementous epithelium with short projections towards the connective tissue, exocytosis and degeneration of the basal layer. The lamina propria, consisting of dense connective tissue, showed a chronic inflammatory infiltrate predominantly lymphocytic with justaepithelial localization. Striated skeletal muscle tissue completed the histopathological features. The diagnosis was lichen planus.

The patient was prescribed triamcinolone acetonide 1 mg in emollient base for topical use for 10 days. After 15 days, the patient was evaluated again, with remission of the lesions (Figure 3). The patient was instructed as to the need to return due to the possibility of recurrence of the lesion, probably caused by her emotional state. The patient has been followed up for 2 years with no signs of recurrence.



Figure 3: Remission of the lesions after 15 days of topical use triamcinolone acetonide.

Discussion

Normally, cutaneous lichen planus is characterized by polygonal, purple-colored papules, causing itching and consequently excoriation, which affect the extremities and their flexor regions. These papules reveal interlaced white net-like lines, the so-called

Wickham's striations. It particularly affects the glans penis, the vulvar mucosa and the fingernails [1,2,4,5,7].

In the oral cavity, lichen planus is clinically characterized by white, bilateral, symmetrical lesions that may present as typical or atypical forms. The typical forms are usually asymptomatic and may involute until total remission and require no treatment. Among them are the reticular, papular, and plaque forms. In the reticular form, Wickham's striae are characteristic, as can be seen in the present case (Figure 2). On the periphery of the lesion, small whitish papules 1 mm in diameter are observed. It usually affects the jugal mucosa, and may also involve the tongue, gingiva, lips, and palate. The papular form is characterized by the presence of small papules, or as seen on the periphery of Wickham's striae. Plaque lichen planus clinically resembles leukoplakia, slightly elevated and irregular. It particularly affects the lingual dorsum and the jugal mucosa [1-5].

The atypical forms are usually symptomatic, cause burning and severe pain, become stationary and permanent, suffering exacerbations by local or systemic interferences [2-5,8]. They are classified as atrophic, characterized by red spots with very fine white striae, affecting the inserted gingiva; erosive or ulcerative, characterized by the presence of an ulcer, in which the process is dynamic, changing appearance in days, as seen in figure 1; and bullous, the rarest form, in which ulceration is preceded by the formation of blisters or vesicles. These blisters rupture rapidly, causing an ulcerated and extremely uncomfortable surface. It affects the jugal mucosa, particularly in the posterior regions, adjacent to the lower molars [1,2,5].

There is a greater predisposition in the female gender, affecting the age group between 40 and 70 years old. The jugal mucosa is the most affected region, followed by the gingiva, lip, oral floor and palate [1-3,5,8-13].

Clinical diagnosis is based on symptomatology. Thus, the typical forms are rarely symptomatic and the diagnosis is sporadic. The atypical forms lead to diagnosis by symptomatology, which is, however, arduous. Histopathological examination reveals typical but nonspecific features, since other lesions such as lichenoid reactions (drug or substance reactions) and lupus erythematosus show a similar histopathological pattern [1,4,5]. The use of serological tests and direct and indirect immunofluorescence has been cited for the diagnosis of antibodies involved in the immunopa-

thological pattern of the disease [1,4,14]. Several lesions compose the clinical differential diagnosis, among them lichenoid reactions, leukoedema, white spongy nevus, Fordyce's granules, geographic tongue, pseudomembranous candidiasis, hyperkeratosis, cheilitis leukoplakia, aphthous ulceration, herpes, desquamative gingivitis, erythroplakia, psoriasis, pemphigus, benign mucosal pemphigoid, lupus erythematosus, erythema multiforme, Behcet's syndrome, epidermoid carcinoma, and syphilis [4,9,14].

In typical and asymptomatic cases of lichen planus, treatment is rarely necessary. Sporadically, the patient may present candidiasis over the lichen planus, and in these cases, if there is mild burning, antifungal medication should be administered [1]. In cases of atypical forms, and because lichen planus is an immunologically mediated condition, the treatment usually recommended is corticotherapy [2,4,5,9,12,14,15]. However, systemic therapy is not advisable in view of the side effects. Potent corticosteroids such as triamcinolone, fluocinonide, betamethasone and clobetasol gel, applied daily, were indicated, resulting in healing in 7 to 15 days [2,4-6,12,16]. Topical administration of triamcinolone acetonide 1 mg in emollient base in the present report showed satisfactory results in 15 days.

Beyond the corticotherapy, administration of other drugs such as azathioprine, cyclosporine, pimecrolimus, methotrexate, retinoids, dapsone, phenytoin, griseofulvin and hydroxychloroquine was also cited [1,2,4,6,10,15,17]. The combination of systemic and topical corticotherapy compared to topical therapy alone was inferior because of the side effects of systemic administration, making it the second choice [14]. In view of several possible adverse events resulting from the administration of some drugs, the combined therapy with nanocurcumin gel and triamcinolone acetonide gel was recommended, showing satisfactory results, with remission of oral lesions [7].

Laser surgery (CO₂ laser) or photobiomodulation (diode laser) has been reported, with a relative success rate [4,5,8,13].

The clinical importance of lichen planus is also due to the possibility of malignancy of this lesion, particularly in the erosive form [1,5], ranging between 2 to 4% [9]. By means of immunohistochemical techniques, a high expression of p53 protein has been demonstrated, which is characterized as an indicator of the probable malignancy [1,10]. Patients with lichen planus should be evaluated annually or every six months [1].

Conclusion

Lichen planus is a chronic inflammatory mucocutaneous disease that is clinically important because it affects several sites in the oral cavity. Clinical features make it difficult to make an accurate diagnosis, and histopathological features are not always elucidative. Possibly, the immunological and emotional condition is related to its etiopathogenesis. The recommended treatment is corticotherapy, which should be particularized in each case. The diagnosis of the present case was based on the clinical features and history of the evolution of the lesions, coinciding with the stress and anxiety condition of the patient. Triamcinolone acetonide was chosen because it is easy to apply in the oral cavity, and because it is a less aggressive corticosteroid derivative, compared to other drugs in the same class, such as betamethasone and dexamethasone. The dental surgeon should consider the cost-benefit ratio in the administration of corticosteroids, in relation to possible side effects in prolonged periods. In addition, preservation and clinical follow-up of patients should be performed due to the possibility of malignant transformation.

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