

Oral lichenoid lesions of the upper lip

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Abstract

Background: Oral lichen planus is a chronic inflammatory disease of unknown etiology. It is characterized by notable heterogeneity in clinical presentation and behavior.

Main observations: We describe 3 patients with lichenoid lesions of the upper lip and upper anterior gingiva. These cases probably represent a clinical subtype of lichenoid lesions associated with microbial antigenicity and are characterized by persistency. All three patients had a long history of previous ineffective treatments and all three showed an excellent response to a combination of clarithromycin (2 x 250 mg/day) and prednisolone (15 mg/day).

Conclusion: The combination of clarithromycin and prednisolone may be considered as an alternative intervention in patients with lichenoid lesions of the upper lip and upper anterior gingiva. (*J Dermatol Case Rep.* 2017; 11(1): 16-19)

Introduction

Oral lichenoid lesions described also as mucositis of the upper lip and gingiva, is a clinical subtype of lichenoid lesions.^{1,2,3} A small number of case series describe this localized type of lichenoid lesions.^{1,2,3} The main features which make it a distinct clinical entity are: 1) The location of the lesions (only affecting the mucosa of the upper lip and the gingiva of the upper anterior teeth), 2) The appearance of the lesions, which show intense erythema accompanied by white patches and superficial erosions. 3) The lesions do not respond to the conventional treatment with topical and systemic, glucocorticosteroids. 4) The majority of patients are females. There is a strong speculation that a microbial factor is involved in the pathogenesis of the lesions.

In this article three cases of patients with upper lip lichenoid lesions are presented. They were all successfully treated with a combination of low dose prednisolone (per os) and systemic clarithromycin.

Case Reports

All three patients were women in their 7th decade of life (60, 62, and 69 years old). Patients presented with ulceration and erythema localized only in the upper labial mucosa (internal lip) accompanied by edema and redness of the adjacent gingival mucosa (a type of "kissing" lesion localized only in the front upper gingival area). The labial and gingival lesions were red and whitish with lichenoid features (striae like) (Fig. 1, 2, 3). The lesions were described as disturbing by the patients who complained of burning and pain especially with spicy food. Patients were inquired about any changes in the use of toothpaste, abuse or use of particular substances, dental products, trauma, systemic medications and food allergy. Two of the patients were taking anti-hypertensive agents and one was under investigation for possible autoimmune neuropathic pain (her pain condition remains undiagnosed after 14 months). All three patients had previously been unsuccessfully treated with local

and systemic glucocorticosteroids in combination with topical and systemic antifungal agents. Patients characteristics are summarized in Table 1.

According to history and clinical examination they were all diagnosed with lichenoid lesion of the lip and gingiva. Biopsy was not considered necessary as no strong differential



Figure 1
Patient 1 Initially and after treatment.



Figure 2
Patient 2 Initially and after 8 days of treatment.



Figure 3
Patient 3 Initially and after 5 days of treatment.

Table 1. Patient characteristics.

PATIENT No	AGE	MEDICAL HISTORY	PREVIOUS TREATMENTS
1	62	Hypertension treated with angiotensin-converting-enzyme inhibitor (ACE inhibitor)	<ul style="list-style-type: none"> • Chlorhexidine mouthwash • Topical glucocorticosteroids • Systemic fluconazole • Systemic methylprednisolone
2	60	Orofacial pain of unknown etiology, investigated for systemic lupus erythematosus (negative)	<ul style="list-style-type: none"> • Topical glucocorticosteroids • Nystatin mouthwash • Systemic methylprednisolone
3	69	Hypertension treated with angiotensin-converting-enzyme inhibitor (ACE inhibitor) and beta blockers, omeprazole	<ul style="list-style-type: none"> • Systemic methylprednisolone • Miconazole gel

diagnosis problem existed and lesions were not suspicious for dysplasia.

They received the same treatment with a combination of 15 mg of prednisolone in combination with 250 mg of clarithromycin b.d. for 5 days and were re-evaluated on the 5th day of treatment (Fig. 1, 2, 3). Two of the three patients were completely free of lesions on the day 5 and the treatment was tapered down to 10 mg of prednisolone for 3 days and 250 mg of clarithromycin o.d. The third patient had showed partial improvement and the course was continued for 3 more days, then the same tapering course was suggested. This patient too cleared of her lesions. All patients remained free of lesions during a 6 month follow-up. They were all advised to visit their dentist for scaling and polishing every 4 months and to avoid any kind of chewing gums and artificial sweets.

Discussion

Oral lichen planus (OLP) is an inflammatory disease of the oral mucosa which may have a wide range of clinical appearance.⁴ OLP usually affects middle aged female women. Common sites affected are the buccal mucosa (typically bilateral striae like lesions are the hallmark of clinical diagnosis), gingival (desquamative gingivitis, ulcers erythema), tongue, and vermilion border of the lip.⁵ The pathogenesis of OLP is poorly understood and the most popular theory is that OLP is a T-cell-mediated response to an unknown antigen (internal or external) and may resemble an autoimmune reaction.

As patients' symptoms vary significantly (with many being asymptomatic for years) therapy is applied only for the patients who complain of pain and difficulty in eating and speaking.^{4,5} No golden standard exists most commonly topical steroids are used to lower the inflammatory response (usually clobetasol propionate 0.05), other options such as topical tacrolimus and systemic steroids are used in patients with extensive lesions or if topical steroids fail.⁶ Many patients may be refractory to treatment.⁴ OLP carries a risk for transformation into squamous cell carcinoma possibly as a result of chronic inflammatory oxidative stress.^{7,8} Hence it requires surveillance for malignant changes by experienced clinicians.⁹ Often, classic OLP is non-distinguishable from oral lichenoid tissue reactions (OLR). OLR may be caused by, localized contact reactions, or may be associated with the use of systemic drugs (Table 2).¹⁰

Table 2. Most common causes of lichenoid lesions of the lip and oral mucous membrane.

Local	<ul style="list-style-type: none"> • dental amalgam (most common) • composite used in dental restorations • dental plaque – tartar
Systemic	<ul style="list-style-type: none"> • non-steroidal anti-inflammatory drugs • antimicrobial agents • anti-hypertensive agents

Idiopathic OLP and OLR show almost identical histologic features that include liquefaction of the basal keratinocytes with a bandlike array of activated inflammatory cells (mixed populations of T lymphocytes, macrophages, and dendritic cells have been described).^{4,5} In addition, many immune-mediated diseases can induce oral lichenoid changes that mimic OLP e.g. discoid and systemic lupus erythematosus, graft versus host disease and oral lichenoid reactions.^{4,5} Biopsy may be useful in excluding other pathologies and when dysplasia is suspected.⁹ OLRs possibly are a type of hypersensitivity reaction as often removal of the allergen (e.g. changing the dental filling from amalgam to composite) can lead to complete resolution.

These three cases are typical examples of the condition previously described as oral lichenoid reactions of the upper lip associated with reaction to oral microbial.^{1,2,3} These lesions possibly are a distinct type of OLR which is precipitated by dental plaque microbia which colonize the upper anterior gingival margins causing chronic gingival inflammation and also irritate the mucosa of the upper lip generating lichen like lesions.^{1,2,3} Recently a patient with oral lichen planus and granulomatous cheilitis has been described supporting the connection of a microbial component to the OLP/OLR pathogenesis.⁵

All three patients had a long history of relapses following partially successful treatments (Table 1). The chosen combination of prednisolone and Clarithromycin was based on the notion that these lesions share features of both an immune mediated and microbial precipitated disease.^{1,2,3} Treatment with solely corticosteroids has been proved unsuccessful in these patients and similar cases.^{1,2,3} Clarithromycin was added aiming to reduce the gingival inflammation (possibly attributed to microbes). In addition, Clarithromycin is known to enhance the effect of Prednisolone so we could benefit from lower steroid-doses.

Conclusion

The successful outcome of these three patients, of course does not predict the positive outcome of all cases of lip lichenoid mucositis as there are notable variations in the clinical behavior of the "lichenoid lesions". Nevertheless, it is worth mentioning so that other patients with similar problems may benefit from this combination or other combination of systemic glucocorticoids and antimicrobial agents.

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