

INTERDISCIPLINARY APPROACH IN COMPLEX TREATMENT OF ORAL LICHEN RUBER PLANUS /REVIEW AND A CASE REPORT/

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SUMMARY

Lichen planus(LP)is a common chronic mucocutaneous disease of unknown etiology. Usually, it presents with lesions on the flexor surfaces of the upper extremities, genitalia and mucous membranes. Oral lesions can be the initial as well as the only manifestations of this condition. Patients with LP can present first to the general dental practitioner so sufficient knowledge on this condition is important for the proper diagnosis, treatment and prevention of further complications. The clinical management of LRP requires liaison between dental and medical specialists.

This article provides a review of the current literature on LP and a case report of a 55 years old female suffering with this condition. A multidisciplinary approach in the diagnosis and management of this case is described.

Key words: oral lichen planus, corticosteroids, retinoids, oral cavity, precancerous conditions/pathology

INTRODUCTION

A broad range of systemic diseases may have oral lesions, including lichen planus.

Lichen planus (LP) is a pruritic, papular eruption characterized by its violaceous color; polygonal shape; and, sometimes, fine scale.

It was first described by Wilson in 1869 and is thought to affect 0.5–1% of the world's population.⁹

The condition is a cell-mediated immune response of unknown origin and can affect either the skin or mucosa or both.

Lichen planus is most commonly found on the flexor surfaces of the upper extremities, scalp, nails, on the genitalia, and on the mucous membranes. About half of the patients with skin lesions have oral lesions, whereas about 25% present with oral lesions alone.^{1, 2, 4, 9}

It affects woman more often than men in a ratio 2:3 and predominantly occurs in adults older than 40 years.⁹

In most cases appears unexpectedly and is called idiopathic oral lichen planus.

In other cases oral lichenoid reactions may be

triggered by:

- Drugs - often due to gold therapy, some antibiotics, non steroidal anti-inflammatory drugs (NSAIDs), sulfonyleureas, beta-blockers, and some angiotensin-converting enzyme (ACE) inhibitors. These drugs more commonly cause a skin eruption with the mouth being affected less often.

- Contact allergens in dental restorative materials or toothpastes.⁶

- Mechanical trauma (Koebner phenomenon)

- Viral infection, particularly Hepatitis C ^{7, 10}

- In people who habitually chew betel quid.¹⁰

Oral lichenoid lesions are also part of the spectrum of chronic graft-versus-host disease that occurs after bone marrow transplantation.¹¹

In many patients, the onset of oral lichen planus is insidious, and patients are unaware of their oral condition. In such instances the General dental practitioner identifies the clinical changes in the oral mucosa.

Other patients report sensitivity of the oral mucosa to hot or spicy foods or oral hygiene products, painful oral mucosa, sore gums, red or white patches on the oral mucosa, red gums, or oral ulcerations.

Approximately two thirds of patients report oral discomfort, especially in association with atrophic and erosive lesions. The oral pain exacerbated by trauma and hot spicy, or acidic foods.

Oral lesions and present as white striations (Wickham striae), white papules, white plaques, erythema (mucosal atrophy), erosions (shallow ulcers), or blisters. The lesions predominantly affect the buccal mucosa, tongue, and gingivae and usually are bilateral.They are classified as reticular, plaquelike, atrophic, papular, erosive, and bullous.

In contrast to cutaneous lichen planus, the oral form may persist for up to 25 years with periods of exacerbation and quiescence. During periods of exacerbation (linked to psychological stress and anxiety), the area of erythema or erosion increases, with increased pain and sensitivity. During periods of quiescence, the area of erythema or erosion

decreases, with decreased pain and sensitivity.¹

Up to 44% of patients with oral lichen planus develop coincident skin lesions: flexor aspects of the wrists or ankles, the extensor aspects of the lower legs, the skin of the lower central part of the back, and the natal cleft. The genitals might be involved as well as the nails and scalp. Rarely, laryngeal, esophageal, and conjunctival involvement occur.^{1, 2, 9}

A specialist in oral pathology or a dermatologist typically makes the primary diagnosis of oral lichen planus.⁷ Histopathologic examination of lesional tissue is the most relevant investigation in cases of oral lichen planus.

Opinions may be sought from the following specialists if patients have relevant signs or symptoms:

Dermatologist - For the diagnosis, treatment, and review of skin, nail, genital, and scalp lesions

Otolaryngologist - For the diagnosis, treatment, and review of laryngeal and esophageal lesions

Ophthalmologist - For the diagnosis, treatment, and review of conjunctival lesions

Gynecologist - For the diagnosis, treatment, and review of vulval and vaginal lesions

Clinically, the differential diagnosis should include lichenoid reactions, leukoplakia, squamous cell carcinoma, pemphigus, mucous membrane pemphigoid, and candidiasis.

Medical treatment of oral lichen planus (OLP) is essential for the management of painful, erythematous, erosive, or bullous lesions. Topical corticosteroids are the mainstay of medical treatment.^{1, 2, 5, 8, 10}

Other potential therapies include systemic corticosteroids, *antihistamines*, hydroxychloroquine, azathioprine, mycophenolate, dapsone, and topical and systemic retinoids.^{1, 2, 5, 8, 10}

If systemic drug therapy (eg, treatment with NSAIDs, antimalarials, or beta-blockers) is suspected as the cause of oral lichenoid lesions, changing to another drug may be worthwhile. However, the switch rarely resolves the erosions, and almost never resolves the white patches of oral lichen planus. Because patients with OLP may be at an increased risk for the development of squamous cell carcinoma, periodic follow-up is mandatory to detect malignant transformation.^{4, 7, 9, 10}

CASE REPORT:

A 55-year-old female presented at the Oral surgery department, Medical university, Plovdiv, complaining of a painful ulceration on the right margin of the tongue with a 6 months history.

The patient relates the onset of the symptoms with a local trauma. Her general medical practitioner advised application of Gerytamine (Vit. A, Vit. E, Soya butter). Although the patient noticed certain improvement and reduction in the lesion size after this treatment, the symptoms reoccurred following consumption of spicy food.

The patient reports aggravation of the discomfort and sensitivity in the oral lesion from acidic or spicy food and drinks. The patient also suffered with skin eruptions on the flexor surfaces of the upper extremities twice in the past year. These were treated with Clobetasol propionate unguent.

The past medical history includes a hepatitis A infection at the age of 8 and an allergic dermatitis associated with chemicals used at her work place 20 years ago. The patient is otherwise fit and healthy and is not taking any medication. She is a non-smoker does not use alcohol.

There was no family history with similar findings.

The general physical examination revealed a moderately built patient with satisfactory vital signs. There were no apparent skin lesions at the time of the assessment.

Right submandibular lymph nodes with soft consistency were palpable on the extra-oral examination.

Intraorally, there were white hyperkeratotic white striations (Wickham striae) bilateral on the buccal mucosa with normal surrounding mucosa without any clinical manifestation of inflammation or ulceration. An ovoid ulceration (5mm ´ 15mm) on the right lateral margin of the tongue was also present. On palpation, the lesion of the tongue was slightly painful without oozing. The surrounding mucosa was of normal consistence without signs of induration. The bottom of the ulceration was brown in color. White streaks at the dorsum of the tongue were also present. The patient also had chronic generalized gingivitis and erythema on the hard palate.



Picture 1.



Picture 2.

The initial diagnosis based on the clinical exam was oral lichen planus. Differential diagnosis was made with Pemphigus Vulgaris, lichenoid reactions, leukoplakia, squamous cell carcinoma, mucous membrane pemphigoid, and candidiasis.

The diagnosis of Lichen planus mucosae oris (*Lichen erosivus region gingivae superior et inferior*) was also confirmed by specialist dermatologist.

Laboratory tests were undertaken to confirm the definite diagnosis. *Candida albicans* test was negative and the blood test was normal. A test for bimetalism was found positive. Nevertheless this finding is rarely directly related to the etiology of this condition. Tests for contact allergy to dental amalgam and its ingredients have proven negative.

The ulcerative lesion on the tongue was excised along with an area of the surrounding mucosae.



Picture 3.

The histological findings (№ 87, 88, 89 / 13.03-09) showed subepithelial mononuclear infiltrate consisting of lymphocytes and histiocytes, parakeratosis and acanthosis. This led to the definite diagnosis of Lichen rubber planus.

The treatment in this case was carried out by a consultant dermatologist. The therapeutic regimen included Depo-Medrol® 0,04 (methylprednisolone acetate) Injectable Suspension, USP, 1 injection; Xyzal tabl. 0,02; 1 tabl. per day For 20 days; Elocom solution - for topical treatment, Mometasone furoate for topical treatment of the skin lesions once per day.

The patient was advised to avoid spicy food, comply with a healthy diet rich in fresh fruit and vegetables and visit her dentist regularly for ongoing prevention.

In the re-examine after a year the lesions in the oral cavity persists, but there aren't any new ulcerations. White striations are present on the lips. The patient hasn't any complaints.



Picture 4.



Picture 5.



Picture 6.

DISCUSSION

The incidence of oral lichen planus ranges between 0.5%-1% among the populations. About half of the patients with skin lesions have oral lesions, whereas about 25% present with oral lesions alone.⁹

The existence of skin lesions may be helpful to confirm the diagnosis of oral lichen planus.

However in the cases with oral manifestations only the general dental practitioner can be the first to detect the

condition. Biopsy and histological examination are essential for obtaining a definitive diagnosis. Therefore the management of OLP requires liaison between dental and medical specialists.

The principal aims of current oral lichen planus therapy, which remain symptomatic, are the resolution of painful symptoms, the resolution of oral lesions, the reduction of the risk of malignant transformation, and the maintenance of good oral hygiene. In patients with recurrent painful disease, another goal is the prolongation of their symptom-free intervals.

Systemic corticosteroids must be used cautiously and with discretion.

CONCLUSIONS

1. An interdisciplinary approach is essential in the diagnosis, treatment, management and ongoing care for the patients suffering with Oral Lichen Ruber planus.

2. The general dental practitioner can be the first to detect Oral Lichen Ruber planus, especially where the oral lesions are the single manifestation of the condition. Adequate approach in these cases and prompt referral to a specialist dermatologist is necessary.

3. The malignant potential of lichen planus is still controversial and it has been commonly associated with the atrophic and erosive forms. Therefore patients should be observed periodically, particularly those with the erosive or atrophic forms and asked to report any changes in their lesions and/or symptoms.

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