Lichen Planus: A Review

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Abstract: Oral lichen planus (OLP) is a chronic mucocutaneous disease of unknown etiology. Its pathogenesis is multifactorial and it may affect the oral mucosa, skin and other mucous membranes. Diagnosis is based on clinic and histopathology; direct immunofluorescence techniques can also be of use. It affects about one to two percent of the population, mainly women between the fifth and sixth decades of life. In the mouth, the most affected area is the buccal mucosa, followed by the gums, tongue and/or palate. Its three most representative clinical forms are reticular, erythematous and erosive; evolution depends on the type it is. Lesion

treatment is determined by the clinical form and, since no fully effective treatment has been found yet, it is directed towards controlling the disease. The treatment of choice involves topical or systemic corticosteroids, but other drugs may also be used. The aim of this paper is to gather current and relevant information about oral lichen planus: its pathogenesis, diagnosis, treatment and management.

Keywords: Oral Lichen Planus, Clinical/Histopathology Diagnosis, Treatment, steroids

Introduction:-

It was Erasmus Wilson who coined the term "lichen planus" in 1869. He considered this to be the same disease as "leichen ruber", previously described by Hebra.Wickham noted the punctuations and striae atop the lesions that currently bear his name. Today, lichen planus, including the cutaneous form and oral lichen planus (OLP), is recognized as a chronic mucocutaneous inflammatory condition of the stratified squamous epithelia. Estimates of the percentage of patients with cutaneous lichen planus (LP) who also have oral LP vary from somewhere between a third and a half [1-3], to as high as 70% and even higher when the cutaneous lesions are of long duration. [4] Some 25–85% of patients present with only oral LP [2-4]. Although about 65% of patients with cutaneous LP go into spontaneous remission after one year, such remissions have been estimated to occur in no more than 3% of patients with oral LP.[5]

The underlying mechanism causing LP is thought to be a T-cell mediated immune response against foreign or autogenous antigens.[6] At least two thirds of the patients with LP are between the ages of 30–60 and the disease is uncommon in the very young and in the elderly.[7]

Oral lichen planus (LP), if erosive or disseminated can be very resistant to treatment. Oral LP has many clinical presentations, with some lesions requiring no treatment and others needing management for decades.

Treatment rationale

Topical corticosteroids should be considered the treatment of choice unless the disease is very extensive.[1,2]

Systemic therapy is reserved for those with severe, refractory disease.[3]

Oral hygiene and corrective dentistry play a major role in the management of LP and consultation with a dentist or oral medicine specialist may be helpful.[3,4,6]

Acitretin, combined with topical corticosteroid, can be effective, but should be reserved for patients who have not responded to corticosteroids alone. The retinoid should used for several months and then tapered as patients improve.[3] If acitretin is ineffective, other agents such as antimalarials, azathioprine or cyclosporine have been used.

Dental treatment

Indifferent oral hygiene leading to the formation of plaque and calculus exacerbates gingival LP, which may lead to severe gingivitis and periodontal disease.[3] An optimal oral hygiene regimen should be instituted in all patients with oral LP, especially those with gingival involvement.

Medical therapy should accompany oral hygiene measures.[3] Certain oral clenching and sucking habits can make LP erosive or ulcerative, and habit splints have helped to modify these habits

and reduce the inflammation.[4] Oral trauma from ragged broken teeth and sharp prostheses are provocative.

There is some evidence that the presence of gold and mercury amalgam fillings may provoke oral lichenoid reactions. Only a very small percentage of patients will respond to improved oral hygiene and corrective dentistry without further intervention.[1,2]

Lichen planus and hepatic disease

According to European reports hepatic disease does play a role in LP, its role seems to be less important in World. [1,2] Nevertheless, it is reasonable to obtain pertinent laboratory evidence on newly diagnosed patients, especially those with erosive disease.[1,3]

Points related to Dental Practice

- 1% of patients with oral LP will develop oral squamous cell carcinoma.[2]
- The relative importance of reversible causes of lichenoid eruptions, such as exposure to causative drugs (most commonly diuretics and non-steroidal anti-inflammatory agents), or hypersensitivity reactions to dental restorations has not been determined but a proper history should be obtained prior to instituting therapy.[3]
- Secondary candidiasis should be suspected when acute exacerbations develop in patients being treated with chronic topical or systemic steroids or other forms of immunosuppression.[3]
- There is increasing evidence that many women have concomitant lichen planus vulvar involvement, which either they are unaware of or decline to mention to their dermatologists.
- Female patients should be examined for vulvar involvement, or at least asked about symptoms.

- Penile lesions are common.
- There are significant **histologic differences** between idiopathic lichen planus and a lichenoid drug eruption.
- It’s important to do a baseline biopsy to distinguish between these two entities and to have these biopsies read by a dermatopathologist.
- Patients who consume alcoholic beverages which contain flakes of gold are at increased risk of developing generalized lichen planus. These drinks are more popular in Western Europe, especially with younger individuals, so in such patients inquiring about their patterns of alcohol consumption is prudent

Therapy for oral lichen planus[5]		
First line	*topical corticosteroids*	Good safety & efficacy, low cost[4] used on almost all patients.[3,4]
	topical retinoids	Of value when combined with topical corticosteroids in conditions such as LP of the gingiva.[3]
Second line	*acitretin*	May be first choice in severe, resistant disease.[8]
Other	*dapsone, hydroxychloroquine*	No large, well designed trials.[4] Hydroxychloroquin is very effective when topical therapy fails but many months of treatment are required to realize its benefits.[3]
	oral corticosteroids and immunosuppressives	Use oral corticosteroids with caution for a short term. Azathioprine has also been used as a steroid-sparing agent. Cyclosporin does not appear to be better than topical corticosteroids[4] and is very expensive.[3,4]
Investigational (results need confirmation and these two new treatment approaches need further study)	*Extracorporeal photochemotherapy*	All seven patients in an open, prospective trial had complete remission of their chronic, erosive, oral LP, after 12 sessions over 1.5 months on average.[9]
	Enoxaparin (a low molecular weight heparin)	Low doses given to 10 patients with intensly pruritic LP produced complete remission of non-oral skin lesions in eight patients and marked improvement in one; oral lesions improved in one out of four patients with oral LP.[10]

Conclusion:-

Oral lichen planus is a complex and poorly understood clinical condition which cannot be cured. A definitive diagnosis and careful, conscientious follow-up are imperative. Symptoms and complications are common and challenging but may be managed with a variety of therapies including orally administered and systemic medications as well as lifestyle alterations and reduction of precipitating factors.

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