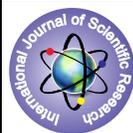


Oral lichenplanus -Case report with Review of Literature



Medical Science

KEYWORDS : Lichen planus, oral malignancy, chronic autoimmun

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ABSTRACT

Oral lichen planus (OLP) is a chronic autoimmune, mucocutaneous disease that affects the oral mucosa as well as the skin, genital mucosa, scalp, and nails. It is one of the most common dermatological diseases presenting in the oral cavity. An immune-mediated pathogenesis is recognized in lichen planus, although the exact etiology is unknown. A case of lichen planus is presented with special emphasis on its clinical and microscopic characteristics. The differential diagnosis and the controversy associated with the malignant potential of oral lichen planus is also discussed.

INTRODUCTION

A broad range of systemic diseases may have gingival lesions, including lichen planus. The oral manifestation of lichen planus generally has typical clinical aspects and distribution, but the atrophic and erosive forms may be challenging even for the most experienced dental practitioner¹. Atrophic lesions account for 5% to 44% of oral lichen planus manifestations, while the erosive and/or ulcerative ones vary between 9% and 46% of cases¹. This higher frequency of erosive lichen planus compared to the reticular and atrophic forms, as previously observed by Silverman and Bahl^{2,3}, is probably the result of the symptomatic nature of this lesion, which often prompts an evaluation visit.

The etiology of lichen planus remains uncertain, but many factors have been implicated. Such factors include genetic predisposition, infective agents, systemic diseases, graft-versus-host disease (GVHD), drug reactions, vitamin deficiencies, and hypersensitivity to dental materials.^{4,8} The pathogenesis of lichen planus is not completely understood, but a T lymphocyte infiltrate suggests cell-mediated immunological damage to the epithelium.^{6,9} Modified Langerhans' cells and keratinocytes may trigger an immune response and the recruitment of T lymphocytes caused by expression of cell-surface adhesion molecules.^{5,8}

The malignant potential of lichen planus is still controversial in the literature and it has been commonly associated with the atrophic and erosive forms^{1,2,7}. Most cases of reported malignant transformation are rather poorly documented. Some of these cases may not have been true lichen planus, but rather may have actually been dysplastic leukoplakias with secondary lichenoid inflammatory infiltrate that mimicked lichen planus¹⁰.

A case of lichen planus, with special emphasis on its clinical and microscopic features, is presented. The importance of periodic disease reevaluation and malignant potential of lichen planus is also discussed.

CASE REPORT:

A 45 year old female (fig:1) patient from Davangeri, Karnataka, presented with the chief complaint of burning sensation in the left side of the cheek for the past 12 years. The burning sensation is aggravated when eating spicy foods. She consulted several physicians and in each case was prescribed various medications with no positive outcome. The clinical history indicated that the patient is hypertensive (for the past 12 years) and diabetic (2 years). She was on appropriate medications for these conditions.



Fig:1 Profile photo of a patient

On intra oral examination, the left buccal mucosa revealed a whitish lesion interspersed with greyish lines (Figure 1). The lesion on palpation was tender, and non-scrapable. So based on the history given by the patient and the clinical examination carried out a provisional diagnosis of lichen planus on left buccal mucosa was made. Punch biopsy was taken from the lesion under local anaesthesia, and the specimen was sent for histopathological examination. Microscopically the section showed stratified squamous atrophic epithelium which was separated from connective tissue. The connective tissue showed infiltration of lymphocytes & few eosinophils (Figure 2). Final diagnosis of lichen planus was made. The patient was asked to apply triamcetonolone acetonide 0.1% ointment over the lesion three times a day for 3 weeks. Patient reported back after 3 weeks with complete healing of the lesion.



Fig :2 Intra oral Lichen planus on buccal mucosa

DISCUSSION

Mucosal lesions of lichen planus, as described in this case, may cause difficulties in diagnosis. When considering the site chosen for biopsy, ulcerated areas should be avoided, because they make microscopic features confusing. Furthermore, initial lesions may have an unspecific histopathologic pattern represented by chronic inflammatory infiltrate¹¹. A second biopsy or immunohistochemical and immunofluorescence evaluation may be necessary for the differential diagnosis with those systemic diseases which can mimic, clinically or microscopically, lichen planus^{12,13}.

Most cases of oral lichen planus are often asymptomatic but the atrophic and/or erosive forms cause varied degrees of discomfort, which prompts the search for early professional care. However, as in the present case, patients may have the disease for a long time because lichen planus is a chronic condition characterized by recurrent exacerbation and remission periods¹⁴.

The malignant transformation of oral erosive and atrophic lesions has been described between 0.3% to 12.5% depending on different criteria adopted by the authors. The development of squamous cell carcinoma may occur in areas directly affected by lichen planus, as well as in other areas of the oral mucosa¹⁵. However, it is not established if atrophic and erosive forms of lichen planus have an intrinsic potential for malignant transformation or if the disorder facilitates the development of oral mucosa squamous cell carcinoma by influence of exogenous carcinogens¹⁶.

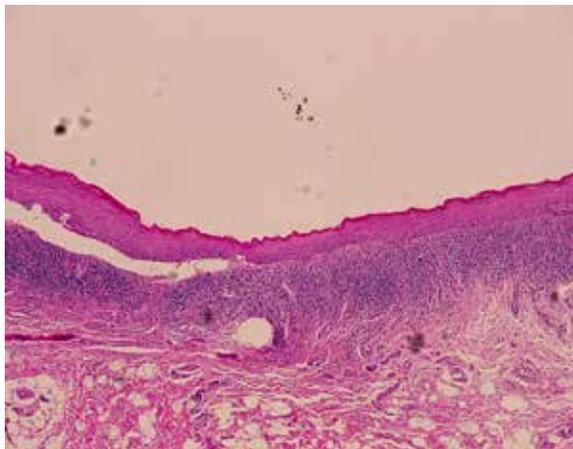


Fig: 3 Histopathology (H & E staining)

It has been suggested that the close cell-to-cell interaction observed in lichen planus and the subsequent release of cytokines by keratinocytes, mononuclear inflammatory cells and dendritic cells modifies the tissue and cell surface proteins to the effect that the tissue becomes more prone to dysplastic or malignant transformation. The close cell contact with intrinsically released chemicals may change the amplification and structure of cell surface proto-oncogene proteins and/or proto-oncogenes so that the control of cell growth is distorted, eventually leading to malignancy. The external factors affecting oral soft tissues (for example tobacco and alcohol) also cannot be excluded from co-influencing the tissue transformation¹⁶.

The most important failures would probably occur in microscopic identification of changes in epithelial maturation with cellular aberrations that range from mild atypia to frank dysplasia¹⁷.

Since the etiology of lichen planus is not totally clarified^{11,16}, the therapeutic goal is palliative rather than curative. Symptomatic lichen planus is usually treated with anti-inflammatory medication, Patients should be advised to maintain good control of dental plaque in order to avoid superimposed gingivitis and periodontitis.

Finally, since this issue will remain controversial for some time, it must be emphasized that although a strict follow-up of erosive lichen planus is necessary, dissemination of cancerophobia among both professionals and patients should be avoided.

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