

Oral Lichen Planus-A Study of 216 Patients

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Abstract:

Introduction: Oral lichen planus (OLP) is a relatively common inflammatory mucocutaneous disorder that frequently involves the oral mucosa. The clinical presentation of OLP ranges from mild painless white keratotic lesions to painful erosions and ulcerations. An important complication of OLP is the development of oral squamous cell carcinoma, which led the World Health Organization (WHO) to classify OLP as a potentially malignant disorder.

Objective: The present clinical study was carried out to clarify the demographic and clinical profile of 216 patients with OLP.

Materials and Methods: The patients were identified based on the diagnostic criteria proposed by van der Meij et al. (2003), modified from the WHO's (1978) clinical and histopathologic definition of OLP.

Results: Mean age of OLP patients was 45.4 years, and among the identified patients, 70.4% were females. The most frequent clinical type was the reticular form (80.6%). The OLP lesions were symptomatic in 77.8% of the patients. The buccal mucosa was the most affected site (87.9%) and multiple oral lesions were observed in 41.7% of the patients. Histo-pathologically, epithelial dysplasia was seen in three cases. The chronic nature of OLP warrants patient education, psychological support and long-term follow up.

Conclusion: Most of the characteristics are consistent with previous studies. Lichen planus is a chronic disease where treatment is directed to control symptoms. Long-term follow-up is essential to monitor for symptomatic flare ups and possible malignant transformation.

Keywords: demography; diagnosis; lichen planus; oral mucosa; precancerous conditions.

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I. Introduction

Oral lichen planus (OLP) was first described clinically by Erasmus Wilson in 1869 (1). It is a T cell-mediated chronic inflammatory disease that involves a type IV hypersensitivity reaction to antigen variations observed in the mucosal lining and skin (2-4). It affects 1-2% of the general adult population, and the prevalence in the Indian population is reported to be 2.6% (3,5). The majority of affected patients present with only oral lesions, which are sometimes referred to as "isolated" OLP (1,6). OLP shows a female predominance and mainly affects adult patients between their fifth and sixth decades of life (2,3). The most frequently involved oral sites are the buccal mucosae, tongue, gingiva, labial mucosa and vermilion of the lower lip. The palate, floor of the mouth and upper lip are rarely affected (7). Extraoral lesions are mainly found on the skin, and especially develop on the flexor regions of the legs and arms and involve the nails. Other mucosal sites include the genitalia, oesophagus, larynx, scalp, and conjunctiva (8-10). Possible malignant transformation of OLP is the subject of ongoing and controversial discussion in the literature (3,11,12). The present clinical study of 216 OLP patients was carried out in an attempt to clarify the demographic and clinical profile of OLP.

II. Materials and Methods

216 subjects attending the department of oral medicine and radiology were selected for our study. The diagnostic criteria proposed by van der Meij et al. (13) modified from the clinical and histopathologic definition of OLP by the WHO (14) were used to identify the cases of OLP. The clinical criteria included mostly bilateral, symmetrical lesions, presence of a reticular pattern i.e. a lace-like network of slightly raised gray white lines, and other subtypes only in the presence of reticular lesions elsewhere in the oral cavity or at the periphery of the lesions (Fig. 1 and 2). Informed consent was taken from subjects. Non-willing patients and those with lichenoid lesions thought to have arisen as a hypersensitivity reaction to drugs and dental materials such as amalgam, composite and acrylates were excluded from the study. Detailed case histories were recorded. The following

clinical data were obtained: patient age, gender, clinical presentation and type of OLP, site of involvement, symptoms, extraoral involvement, history of systemic disease and familial occurrence. In patients with more than one clinical type of lesion, such as reticular and erosive, the most extensive as well as severe form of the disease was used to classify the lesions. OLP patients were reviewed at least six-monthly and lesions were biopsied as indicated by their clinical presentation and previous histological findings.



Figure1 : Reticular lichen planus



Figure2 : Ulcerative lichen planus

III. Results

Table 1 summarizes the demographic and clinical profile of the OLP patients according to subtypes. Among the 216 patients, 152 (70.4%) were women and 64 (29.6%) were men. The male to female ratio was 1:2.3, and the mean age of the patients at presentation was 45.44 ± 13.69 years (overall range 17-76 years). Various factors such as stress, spicy food, poor oral hygiene, tissue abuse habits and trauma were identified as aggravating factors. The duration of the habit ranged from 6 months to 10 years for most of the patients. Thirty-five patients claimed a history of stressful events, while 50 patients had poor oral hygiene at the time of diagnosis. Intraoral examination revealed that 41.7% of the patients presented with multiple oral lesions. The buccal mucosa was the site most affected (87.9%), followed by the gingiva (29.6%), tongue (16.7%), lip mucosa (14.8%) and vestibular fornix (1.9%). The reticular form was observed in 174 (80.6%) patients and the erosive form in 42 (19.4%). A total of 148 patients reported symptoms, whereas 68 cases were asymptomatic. Among patients with asymptomatic lesions, 66 had reticular lesions. Oral discomfort and soreness was the most frequent symptom. Among patients with painful symptoms, 22.4% had the erosive form either alone or in association with

the reticular form. Other signs and symptoms in descending order were gingival soreness and bleeding, mucosal roughness and pigmentation. Ten (4.6%) patients had history of, or were diagnosed with extraoral lesions affecting the skin, nails and genitals. Accompanying systemic diseases included diabetes mellitus (4.6%) and hypertension (10.2%). None of the patients had a family history of OLP or malignant transformation. Among the 25 atypical lesions biopsied, only three showed dysplastic features histo-pathologically. The rest showed classic features of OLP such as liquefaction of the basal epithelial cells, lymphocyte infiltration of the lamina propria, normal maturation epithelium, saw-tooth appearance of the rete ridges, Civatte bodies and hyperkeratosis. Treatment was given in the form of topical steroids (as a mucosal adhesive paste or as intralesional injection) alone to 142 (66.6%) patients and in combination with systemic steroids to four (1.8%) patients with the goal of symptomatic relief. Patients receiving long-term maintenance therapy with topical steroids reported no local or systemic side effects except for oral candidiasis in six (2.8%) cases. Lesion exacerbation was reported in 34 (15.7%) cases.

Table 1 clinical profile of patients according to OLP subtype

Oral sites affected	Reticular type	Erosive type	Total
Buccal mucosa	152	38	190
Gingiva	52	12	64
Tongue	28	8	36
Labial mucosa	26	6	32
Vestibular fornix	2	2	4

IV. Discussion

There are no universally accepted specific diagnostic criteria for OLP. OLP cases involving unilateral lesions clinically (34.3%) and epithelial dysplasia histo-pathologically (1.4%) in the present study would have been disqualified according to the van der Meij (13) system. However, they would have been classified as OLP according to the WHO system (14). Even van der Meij et al. (13) in their paper stated that application of these criteria would exclude a number of patients who may actually have the disease but do not meet the strict criteria. This discrepancy creates confusion when attempting to differentiate OLP from allied lesions, especially oral lichenoid lesions (OLL), and also creates a false record of malignant transformation if these excluded lesions undergo malignant transformation (15). Differentiation of OLP from OLL is important, as both are potentially malignant. Moreover, van der Meij et al. showed that, among many cases, only OLLs turned malignant (16,17). Most of the literature has indicated that OLP occurs predominantly in adults aged over 40 years with a female predominance, and affects the buccal mucosa (18-21). In accord with this, predominance of OLP in the 5th decade with a female to male ratio of 2.3:1 was observed in the present study. The buccal mucosa was the site most affected, either alone or concomitantly with the gingivae. Isolated oral lesions were seen in 95.4% of the patients, and only 4.6% showed extraoral manifestations. This might have been due to the selective referral of patients to our department. The reticular form was the most frequent, followed by the erosive form, as has been documented by several investigators (18,19,22,23). The highest prevalence for both subtypes was found in the 40-49-year age group (31.5%). When the incidence of these subtypes was compared by gender, male patients presented slightly earlier with OLP lesions than female patients. Oral discomfort and soreness was the most frequent symptom, being observed in 49.1% of cases; of these, 22.4% had the erosive form of OLP. The incidence of systemic diseases in the present study was lower than in other studies (6,24,25).

Confusing forms and patterns mimicking other diseases may pose difficulty in diagnosing otherwise clinically distinctive OLP patients with characteristic morphology and distribution. Most of the characteristic clinical findings in this series, such as predominance of the disease among middle-aged women, involvement of the buccal mucosa, presence of reticular lesions and pain, were similar to those reported previously. However, our data underscores the need for more accurate and universally accepted diagnostic criteria than the existing ones, which can create confusion in diagnosing and differentiating true OLP cases from OLL cases.

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