Introduction

Krutchkoff and Eisenberg first coined the terms lichenoid dysplasia (LD)\(^1\).

LD clinically resembles oral lichen planus (OLP) and oral lichenoid lesions (OLL) but histologically harbors atypical cells for which it has a greater potential for malignant transformation. The case reports of two female patients are reported here, which were clinically diagnosed as OLP, later as LD following histopathological confirmation. Both had positive tobacco history and extensive intra-oral lesions. Habit cessation was supplemented by non-steroidal therapeutics with periodic follow-up. There was reduction in the burning sensation, lesion size, and the degree of inflammation of the lesions. Clinical lichenoid like features warrants a biopsy to rule out OLP, OLL from LD. Except for palliation, lesion oriented proper therapeutic treatment should be instituted only after histopathological confirmation.

Case Report

A 40-year-old female reported with chief complaint of burning sensation on eating hot and spicy food that has been gradually increasing in intensity since 2 months. She gave a positive history of chewing tobacco at four packets/day since last 10 years. No significant medical history was elicited. Intra-oral examination revealed diffuse red and white lesion with radiating striae and multiple ulcerations with sloughing in the right and left buccal mucosa measuring 1 × 0.8 cm approximately, along the occlusal plane. The lesion appeared more aggressive on the right side. The dorsum of the tongue revealed diffuse white striae with focal erosive areas [Figure 1]. Differential diagnosis of erosive OLP, OLL and leukoplakia was given. The patient was put on anesthetic mouthwash for symptomatic relief. Incisional biopsy was performed after obtaining consent and complete habit cessation was advised. The histopathological section revealed atrophic epithelium with acanthosis. Hyperplasia of basal cell layer was appreciated along with anisocytosis in the basal third of the epithelium. Chronic inflammation of the underlying connective tissue was present [Figure 2].

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Abstract

Oral lichen planus (OLP) and oral lichenoid lesions (OLL) have an annual malignant transformation rate of 0.5–2.1%. Lichenoid dysplasia (LD) appears clinically similar to OLP, OLL but histologically harbors atypical cells for which it has a greater potential for malignant transformation. The case reports of two female patients are reported here, which were clinically diagnosed as OLP, later as LD following histopathological confirmation. Both had positive tobacco history and extensive intra-oral lesions. Habit cessation was supplemented by non-steroidal therapeutics with periodic follow-up. There was reduction in the burning sensation, lesion size, and the degree of inflammation of the lesions. Clinical lichenoid like features warrants a biopsy to rule out OLP, OLL from LD. Except for palliation, lesion oriented proper therapeutic treatment should be instituted only after histopathological confirmation.

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Another case report is of a 46-year-old female who reported with burning sensation on eating hot and spicy food since last 3 months. She gave a habit history of chewing quid composed of tobacco, aerca-nut, and slaked lime since last 15 years. Intra-oral examination revealed diffuse white radiating striae surrounding an erythematosus area involving the right and left buccal mucosa measuring 1 × 1.2 cm in diameter [Figure 3]. Differential diagnosis of Reticular OLP, OLL was given. Incisional biopsy was performed from the right buccal mucosa after obtaining her consent. Anesthetic mouthwash was given for palliation. Histopathological section revealed hyper-orthokeratinised atrophic epithelium with dysplasia around para-basal cell layer with mild degree of abnormal epithelial stratification. Chronic inflammation of the underlying connective tissue was appreciated [Figure 4].

A final diagnosis of LD was given for both. They were put on topical tacrolimus ointment 0.1% along with benzydamide 0.15% mouthwash. Simultaneously, 2 ml placental extracts with lignocaine hydrochloride 0.1% in 1:1 ratio was administered by intra-lesional injection for 4 weeks. Corticosteroids were not used.

Symptomatic relief was reported after 1 week. Reduction in size and extent of the lesion was appreciated after 4 weeks. As both were unwilling for excision, they are being periodically monitored and are doing well [Tables 1 and 2].

**Discussions**

OLP is a T-cell mediated mucocutaneous disorder having oral and systemic manifestations. According to Kumar et al., LD is associated with lichen planus like histological features in dysplastic epithelium, not the mere presence of dysplasia in lichen planus.\(^3\)

In OLP, the lichenoid infiltrates are initiated by antigens expressed by the basal keratinocytes; in LD it represents immune...
surveillance mechanism against atypical cells.[4] Both our cases had diffuse inflammation of the connective tissue (like OLL) rather than a band of sub-epithelial inflammatory response (like OLP). Literature suggests that the inflammatory response in LD is non-specific, non-diagnostic and secondary to epithelial dysplasia.[5]

Clinically OLP has bilateral and OLL has unilateral presentation. LD may manifest as unilateral/bilateral non-specific lesion with reticular/plaque/erosive/ulcerative pattern. Although OLP and OLL can have any one of the above patterns, presence of some amount of reticular striations is a mandate for their clinical diagnosis.[4,5] Zimbrazo et al. stressed on clinic-histopathological algorithm for proper diagnosis of these lesions.[6]

The incidence of our cases was in the fifth decade, with female predilection. Both had positive history of tobacco and diffuse involvement with striations that suggested lichenoid pattern. On habit cessation, there was no regression of lesion size or symptoms, ruling out tobacco-induced OLL.[1,3]

As both cases were associated with dysplasia, corticosteroids were restricted. Tacrolimus is an immune modulator that decreases the production of Interleukin-2.[7] Benzydamine is widely used as an anti-inflammatory, analgesic, and anti-pyretic agent. Park et al. had demonstrated the anti-oxidative and anti-inflammatory action of placental extracts on carcinogens.[8]

Recent studies encourage the use of curcumin for OLP, OLL, and LD.[2] The histopathological diagnostic criteria of LD is lack of basal cell degeneration. Presence of atypical cells with basal cell degeneration implies OLP/OLL with secondary dysplasia.[9] No evidence of basal cell degeneration was reported in our case series.

Due to the patient's non-compliance post-therapeutic biopsy could not be obtained, which would have helped to assess the molecular changes with regression of lesion size and symptoms.[9]

The use of non-invasive non-steroidal therapeutics for management of LD makes this case series a unique one. This treatment modality can be considered for management of LD in patients with comorbidities that further complicates excision, as initial therapy for extensive lesions of LD and also for recalcitrant variants of OLP/OLL as adjunct to the preferred corticosteroid therapy.[7]

The primary care physicians will be among the first to encounter OLP/OLL/LD lesions (oral and systemic). As these lesions have malignant potential, it is important to address them to the earliest. This paper highlights the therapeutic management of the oral lesions that can be considered for primary care of these patients before instituting a more definitive treatment protocol.

To summarize, LD is neither a variant nor transitional form of OLP. OLP and OLL, though clinically similar to LD, exhibits
significantly lower malignant potential. As LD is primarily a dysplastic lesion, it should be managed with priority as a potentially malignant disorder rather than a lesion with lichenoid infiltration.

There is a need to formulate a clinicopathological classification system to differentiate the primary dysplastic lesions with lichenoid features from the primary lichenoid lesions with secondary dysplasia to facilitate proper diagnosis and treatment planning.

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**Conflicts of interest**

There are no conflicts of interest.

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