

# **BONJELA THERAPY IN ORAL LICHEN PLANUS; A CASE REPORT**

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## **Introduction**

Bonjela is a preparation containing (w/w) Choline salicylate (8.7%), cetalkonium chloride (0.01%), 95% alcohol (39.0%), menthol (0.057%) and glycerine (4.6%); the active ingredients being the choline salicylate and cetalkonium chloride. Choline salicylate is a highly soluble and non-irritant salt of salicylic acid, possessing powerful analgesic and antiinflammatory actions. Cetalkonium chloride is a non irritant quaternary ammonium wide-spectrum antiseptic and has bactericidal activity against the Gram-positive and Gram-negative organisms (Wade, 1977). Bonjela is applied topically for the treatment of painful lesions of the oral cavity i.e., gingivitis, glossitis, stomatitis, denture irritation, herpetiform lesions and infant teething (Warmington, 1962; Palmer, 1962; Marshall, 1969; Weg, 1965; Greenwood, 1965).

Lichen planus is an inflammatory reaction of the skin and mucous surfaces characterized by keratotic lesions of various patterns (Colby, 1971). Lichen planus is more common in the oral cavity as shown in the accompanying figure than on the skin and constitute about 9% of all white lesions of the oral mucosa (Bhaskar, 1977).



Fig. Photograph of a typical intra-oral lichen planus (Stones, 1962). The buccal mucosa shows glistening pearly white papules arranged in a reticular pattern.

The etiology is unknown. Immunological factors are believed to play a prominent role in its causation (Lehner, 1971; Lachapelle and de la Brassine, 1973; Dolby, 1975). Emotional tension, toxæmia, drugs (arsenic, bismuth, and gold), malnutrition, trauma and diabetes are the usual predisposing factors (Dolby, 1975; Gougerot, 1936; Glickman, 1972; Shafer et al., 1974; Grinspan, 1966). It is a chronic disease, commonly affecting females and the highest incidence is in the 5th and 6th decades of life (Bhaskar, 1977).

### Case Report

A 25 year old man was referred by a local dentist to the Dental Clinic, Khyber Medical College, Peshawar, on 31.12.1978 for evaluation of an intra-oral white lesion of about three weeks duration. There was no pain or burning sensation but mild annoyance was experienced by the patient. On intra-oral examination, the buccal mucosa revealed glistening pearly-white papules, arranged in a reticular pattern and surrounded by erythematous zones, covering almost half of the cheek on both sides.

The lesion was diagnosed clinically as lichen planus. Although no histological examination could be carried out, the diagnosis was confirmed by the clinical features, i.e., site predilection, buccal mucosa involvement, reticular pattern and surrounding erythematous zones (Stone, 1962; Mitchel et al., 1971; Zega-relli et al., 1969). The pH of saliva was 7.5.

The patient was given assurance that the lesion was benign and was advised to apply hydrocortisone ointment (1%) three times a day. After a month's treatment, the patient reported back with the same complaint and there was no improvement. In addition to hydrocortisone therapy he was now advised to use vitamin B complex (Vit B1, B6, B12) injections on alternate day. After using the combined treatment for another one month, the patient again reported with the same complaints. The lesion persisted and in addition, the patient complained of a burning sensation in the area, specially during eating spicy foods. The previous treatment was discontinued and the patient was advised to apply Bonjela gel on the affected area, three times a day, before meals. After using Bonjela preparation for 15 days, the patient reported with all the signs and symptoms relieved. The buccal mucosa had resumed its normal colour and the white lines had totally disappeared. He was advised to continue the drug for another one week and to report for at least two visits with 15 days interval. On the subsequent visits the buccal mucosa appeared normal and the patient had no complaint.

## Discussion

Different approaches have been used to treat lichen planus, but none has been proved consistently beneficial or curative and oral lesions may persist for years (Glickman, 1972).

Since most of the patients are nervous individuals, reassurance of the benign nature of the disease is considered important. Tran-qualizing drugs such as diazepam may prove beneficial (Kay, 1972). In case of symptomatic lesions, vitamin B complex in therapeutically high doses (Zegarelli et al., 1969; Lumerman, 1977) with additional supplements of niacinamide (Zegarelli et al., 1969) have found to be ameliorative. Corticosteroid, systemically and topically, have often been found effective in the management of erosions, ulcerations and bullous lesions (Glickman, 1972; Zegarelli et al., 1969). The beneficial effect of betamethasone 17-Valerate and triamcinolone paste has also been confirmed and mild cases may occasionally be kept under control with hydrocortisone lozenges. Resistant lesions are some times treated with systemic steroids or by intralesional or subepithelial injections of a 1 per cent solution of triamcinolone acetonide, i.e. Adcortyl-A (Kay, 1972).

Local application of 1 per cent gentian violet or the use of a mouth wash containing 3 per cent chlortetracyclin and 10 per cent glycerine is helpful to treat secondary infection (Stone, 1962). Phenolic mouth wash can also be useful, for if used before meals, it produces a mild analgesia which enables the patient to take food more comfortably (Kay, 1972).

The possible therapeutic effect of Bonjela in this case may be due in part to the prolonged contact of its ingredients at the site of the lesion and protection of the lesion by the specially prepared gel base, containing the active agents. Since salicylic acid softens keratin and loosens cornified epithelium (Goodman and Gilman, 1975), the epithelium may have been desquamated with choline salicylate, thus ridding the area of invading microorganisms and making the underlying tissue more accessible to the bactericidal activity of cetalkonium chloride. Being a catio-nic surfactant, cetalkonium chloride is more effective in neutral or slightly alkaline medium (Wade, 1977) and since the medium of oral cavity in this case was alkaline (pH=7.5), this might have also favoured the effect of cetalkonium chloride in the eradication of the lesion. It is suggested that the lesion in this case might be inflammatory in origin, and that the synergistic effect of the active ingredients was potent enough to combat the infection.

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