ORIGINAL CONTRIBUTIONS

EFFICACY OF DAPSONE IN LICHEN PLANUS

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Oral dapsone 200 mg daily for 16 weeks was tried in 52 adult patients, of whom 33 patients (males 17, females 16) completed the study. No other topical or systemic medication was permitted. All the patients tolerated the drug very well. In 22 (66.5%) patients there was complete healing with hyperpigmentation after 16 weeks of therapy. In 7 (21.5%) patients partial response was seen. There were 4 (12%) treatment failures. In patients with mucosal lesions, the response started early and was seen more often (80.0%). No relapse was seen in any of the patients followed-up for a period of one year.

Key words : Dapsone, Lichen planus.

Although etiology of lichen planus is not very clearly understood, more emphasis has been on abnormalities of the immune function.[1] Its frequent occurrence in graft versus host disease and immunofluorescent and immunohistochemical findings support this.[2] There are numerous remedies suggested for this disease. Dapsone a relatively non-toxic drug has been found to be effective in erosive lichen planus,[3] and was later reported to be curative in a similar situation.[4] It was subsequently reported to be dramatically effective in a small number of patients with cutaneous and mucosal lesions as well.[5] To assess the response to dapsone, we tried this drug in 52 adult patients with predominant skin lesions and in some with associated mucosal lesions.

Materials and Methods

Fifty two patients having active or at least stable lichen planus who had not had any treatment likely to improve or worsen lichen planus in the recent past, were included in the study. Patients with any evidence of an auto-immune disease were excluded. Diagnosis was based on clinical criteria but biopsy was taken in all cases of hypertrophic lesions, and in case the lesions looked atypical. Dapsone was administered orally in a dosage of 100 mg twice daily, after enquiring about any previous side effects with sulpha drugs. No other topical or systemic medication was permitted except for a bland oil/cream already in use by the patient. The treatment was continued for 16 weeks, unless there was no response at the end of 4 weeks when it was declared as a treatment failure. Patients were asked to report every 2 weeks for assessment of the progress.

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Results

There were 29 males and 23 females. Nineteen patients did not report after varying periods (some before and some after 4 weeks) for follow-up, only 33 patients (17 males and 16 females) completed the study. Data on these 33 patients is presented.

Duration of the disease varied from 1 month to 35 years. The extent of the lesions varied greatly from a few lesions to widespread disease. Lesions were mostly present on the legs, trunk, arms and mucosae. Nail involvement seen in 6 (18.2%) patients, consisted of thinning and roughening of the nail plates, with pits and

longitudinal grooves, and lustreless nails. Mucosal involvement was seen in 15 (45.5%) patients, in 14 in association with the cutaneous lesions and in one patient, only mucosal lesions were present. It consisted of whitish lacy pattern or irregular erosions and ulceration, on the buccal mucosa, tongue, gingival margins and palate in that order. Genital mucosae (glans and prepuce) were involved in 2 (6%) patients in association with oral lesions. Papulo-plaque or papulo-nodular lesions were seen in 30(91.0%) patients and 3(9.0%) had hypertrophic lesions.

All patients tolerated the drug very well. In 22 (66.5%) patients there was complete healing of lesions with remaining hyperpigmentation at the end of 16 weeks (3 patients had to continue the treatment for 22 weeks). Reduction in itching started 1 week after the commencement of therapy and it disappeared almost completely by 4 weeks. Lesions started to flatten after 3 weeks and complete healing was achieved at the end of treatment. Patients with hypertrophic lesions however responded slowly. In patients with mucosal lesions the response started early. Complete healing occurred in 12 (80.0%), partial in one and no response was seen in 2 patients at the end of 16 weeks. The feeling of soreness and intolerance to hot spicy food were the first symptoms to improve. There were 4 (12.0%) treatment failures. In another 7 (21.5%) patients, only partial response was seen in the form of either reduction in itching or incomplete flattening of the lesions. No relapse was seen in any patient followed-up for a period of at least one year.

Comments

Dapsone has a therapeutic effect in several dermatoses.[6] A possible mechanism in dermatoses with a predominant polymorphonuclear infiltrate may be through inhibition of their cytotoxic effect. But its effect in a lymphocyte rich dermatosis is interesting. It may be working through a similar mechanism proposed for polymorphonuclear rich infiltrative dermatoses.[7] It may have an anti-inflammatory effect by inhibiting the release of inflammatory or chemotactic factors from mast cells.[8] Dapsone is known to produce reduced responsiveness of lymphocytes to PHA in vitro and in vivo.[9-11] Moreover, there is a reduction in the number of circulating T-lymphocytes in dapsone treated guinea pigs.[12] Any or all of the above mechanisms may be producing the beneficial effects attributable to dapsone.

Whatever may be the mode of action, effectiveness of dapsone in two thirds of patients with cutaneous lesions and in 80% of patients with mucosal lesions is noteworthy. Marked response in such a short period with dapsone cannot be attributed to a natural remission, because lichen planus is known to take at least 15 months for spontaneous resolution.[13] In patients not known to be allergic to dapsone, it is a very safe and cheap drug. We recommend a double-blind control trial in patients with lichen planus.

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