A STUDY OF PUVASOL AND PUVASOL WITH TRIAMCINOLONE ACETONIDE IN PSORIASIS VULGARIS

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In a comparative study, 60 patients of psoriasis vulgaris were subjected to PUVASOL and PUVASOL with traimcinolone acetonide in two different groups of 30 patients each. Patients given photochemotherapy with 8 MOP and local application of triamcinolone acetonide showed marked improvement (66.6% and 60%) after 4 and 8 weeks of therapy in comparison to 26.6% and 16.6% in the group where no topical corticosteriods were applied. None of the patients showed any adverse reaction to the treatment.

Key words : Psoriasis, Photochemotherapy, 8 MOP, Triamcinolone acetonide.

Though the aetiology of psoriasis is not definitely known, presence of IgG deposits in the epidermis and stratum corneum suggest immunologic pathogenesis.[1] Considering the aetiopathogenesis of psoriasis, it is obvious that agents which can inhibit excessive mitosis and effect immunological counteraction should be an ideal therapy for psoriasis.

In recent years, photochemotherapy with psoralen using UVA (PUVA)[2,3] or natural sunlight (PUVASOL)[4-6] is regarded as an effective and acceptable form of therapy in psoriasis. In both the regimes, despite effective maintenance, majority of the patients show recurrences. The use of corticosteroids in psoriasis is controversial. Corticosteroids used systemically or locally are highly effective in clearing the psoriatic lesions. Considering the rapid cell turnover, increased mitosis and immunological background of psoriasis, it was thought worthwhile to try a combination therapy of PUVASOL and a topical corticosteroid.

Materials and Methods

Sixty patients with psoriasis were studied. Patients with pustular or erythrodermic psoriasis, or psoriatic arthropathy were excluded. The patients were selected at random and matched clinically by two independent workers. Those having any other systemic or dermatological ailment or having occupational risk of excess UV radiation or exposure to sunlight, and children were excluded from the study.

Thirty subjects (group I) were given photochemotherapy with 8-methoxy psoralen (8 MOP) 0.6 mg/Kg body weight at 0900 on the day of sun exposure and local application of triamcinolone acetonide 0.1% at night and in the morning. They were exposed to sunlight starting from 15 minutes alternate day in the 1st week, and increasing by 5 minutes to 30 minutes, two hours after psoralen. In group II, the same routine was followed except for the topical application of ointment.

Hb, TLC, DLC, urinalysis, SGPT, SGOT, blood sugar, blood cholesterol estimations were undertaken before and after completion of the therapy. Each patient was evaluated at weekly intervals for a period of 8 weeks when the final assessment was done clinically by the principal and two other co-workers with reference to the degree of scaling, thickness and redness of the lesions. (Grade 1 : worse; grade 0: no change; grade 1 : minimal improvement; grade 2: definite improvement; grade 3: marked improvement; grade 4 : complete clearance).

Therapy was continued till complete clearance of the lesions. Eyes were protected with eye

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Table I. Comparison of PUVASOL and triamcinolone acetonide (group I) with PUVASOL alone (group II) for the treatment of psoriasis.

Response	Number (%) of patients in			
	Group I	Group II	Group I	Group II
	After 4 weeks treatment		After 8 weeks treatment	
Grade –1	—	—	—	—
Grade 0	—	—	—	—
Grade 1	—	2 (6.6%)	—	—
Grade 2	4 (13.3%)	20(66.6%)	2 (6.6%)	10 (33.3%)
Grade 3	20 (66.6%)	8 (26.6%)	10 (33.3%)	15 (50%)
Grade 4	6 (20%)	—	18 (60%)	5 (16.6%)

shields during sun exposure.

Results

There were 46 males and 14 females between 15 and 50 years in age. Duration of the disease varied from 6 months to 12 years. The response to therapy in the two groups after 4 and 8 weeks is shown in table I.

After 4 weeks of therapy, majority (66.6%) of the patients in group-I showed marked improvement in comparison to group II patients where grade 3 response was seen only in 8 (26.6%) patients. After 8 weeks, there was complete clearance of lesions in 18 patients (60%) in group I, whereas only 5 (16.6%) patients had complete clearance in group II. Majority (50%) of the patients in group II had grade 3 response. After 8 weeks of therapy, the patients with grade 3, 2 and 1 responses were given therapy twice a week till complete clearance of the lesions.

None of the patients showed any adverse reaction warranting withdrawal from the trial. All the patients in group II complained of mild itching over the lesions during photochemotherapy. None of the patients in group I had itching.

The patients were kept under observation for one year. Five patients in group II relapsed whereas none of the patients in group I had any relapse. Investigation results were within the normal limits before and after 8 weeks of photochemotherapy.

Comments

PUVA and PUVASOL though effective in psoriasis, are regarded as a palliative form of therapy because of a high rate of relapses. The rate of relapse in one year time was reported to be 93%.[9] Besides epidermal cell proliferation, increased dermal vascularity is equally important in the causation of disease. Corticosteroids, by virtue of their powerful vasoconstrictor effect, inhibitory effect on mitosis, and their effect on immunological reactions, are considered very effective in psoriasis when given systemically or topically. Their use in psoriasis however, has been restricted for fear of complicated psoriasis and relapse of the disease with additional vigour.[7] Topical corticosteroids are regarded as safe and most useful. Only a few studies are available[9,10] where combination therapy had been used in psoriasis but the results are contradictory.

In the present study, PUVASOL and topical triamcinolone acetonide were found to be more effective than PUVASOL alone. There were no major adverse effects in any patient. Mild itching present in the PUVASOL group was

conspicuously absent in group I. Moreover, patients in group I remained completely free from relapses during the one year follow up, whereas 5 patients (12.5%) in group II relapsed during the same period. Hyperpigmentation was mild in all the patients and posed no problems.

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