

cated by the inexplicable tendency to a reduction in temperature after the first infusion of 5% dextrose in our control patients. This was not consistent, however, and did not occur in all patients. It is possible that an increase in digital temperature from the LMWD in treated patients was masked by the effect of the 5% dextrose in which it was diluted. However, this is unlikely as there was no difference in temperature after the second and third infusions of 5% dextrose in our control patients. We would stress the unpredictability of response of individual digits to warming or therapy. Moreover, subjective changes in patients are not always matched by objective temperature measurements.

The methodological difficulties we encountered probably account for the anomalous results in previous uncontrolled trials.

CONCLUSION

Repeated infusions of LMWD did not significantly alter the temperature of the fingers in a controlled clinical trial. However, in occasional patients the finger temperature rises and ulceration heals, so that this form of therapy may have a limited place in therapy as there is no alternative specific form of treatment. It is impossible to predict those few patients who will have a satisfactory response.

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Long-term Follow-up of Photochemotherapy in Pityriasis lichenoides

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Abstract. Five patients with a histopathologically confirmed diagnosis of pityriasis lichenoides were treated with PUVA or irradiated with a light source emitting UVB and UVA, without prior intake of psoralens. All patients showed a good response to treatment. Long-term follow up showed that patients remained free of lesions during a period of 20 to 36 months: 3 patients had a recurrence of the disease, though less extensive than before, after 25, 23, and 23 months, respectively.

Key words: Pityriasis lichenoides; Photo(chemo)therapy

Pityriasis lichenoides (PL) is a skin disease of unknown aetiology. It may be divided into an acute and a chronic type, although the two types are considered to be different expressions of one disease entity (1). The chronic form especially is considered to be resistant to all kinds of propagated treatments (2). It has been reported that exposure to sunlight may have a beneficial influence on the course of the disease (3). Recently, favourable results of photo(chemo)therapy of PL have been reported (4, 5).

MATERIAL AND METHODS

We treated 5 patients with PL, in which 3 cases were classified as "acute" and 2 as "chronic" type, with photo(chemo)therapy. The type of disease, established by clinical and histopathological criteria, the age of the patients, the duration of the disease and previous treatments are shown in the table.

Four patients were treated with PUVA (8-methoxypsoralen plus UVA, light source Fr-T12 Sylvana tube). Initial irradiation energy was established according to the skin type and the dosage was increased according to the guidelines of the European Cooperative Clinical Trial. One patient was treated with a light source consisting of 8 Osram Ultra Vitalux lamps emitting UVA and UVB. Initial irradiation was 3 min and was increased according to our psoriasis scheme. The energy output of the lamps was not known. Treatment was given three times each week

Table I. Results of treatment with phot(chemo)therapy in 5 patients with pityriasis lichenoides

* = not measured. + = successful therapy. - = unsuccessful therapy

Patient	Age	Classifi- cation	Duration of disease until therapy (months)	Nature of treatment	Number of ex- posures	Total of energy (J/cm ²)	Results	Recur- rence (months)	Period free of recurrence (months)
1 A	49	Acute	4	PUVA	16	34.0	+	1	
1 B				PUVA	21	44.1	+	25	
2	48	Chronic	48	PUVA	41	316.5	+	23	
3	42	Acute	14	PUVA	30	56.0	+		20
4	65	Chronic	102	Solarium	34	*	+	23	
5 A	22	Acute	6	PUVA	45	344.0	-		
5 B				PUVA	42	264.0	+		36

and was discontinued when the skin lesions had subsided completely.

All 5 patients reacted to this type of treatment and became free of lesions. The total dose of UVA energy required to obtain a remission showed a wide variation (34.0–316.5 J/cm²) and was not related to the type of PL. One patient (no. 5) did not show evident improvement during the first period of treatment. Since the patient showed some spontaneous improvement during the summer period, it was decided to give a second PUVA treatment during the next winter, this time with good results.

The remission periods varied and were unrelated to the type of PL. In 3 patients the skin lesions reappeared after periods of 25, 23 and 23 months respectively, but the skin lesions were far less extensive than before photo(chemo)therapy. Only in one of these patients was a second treatment unnecessary. The other 2 requested to start photo(chemo)therapy again.

RESULTS

The results of treatment as well as the nature and duration are shown in Table I.

COMMENTS

Although several treatment modalities have been described for PL, none has proved effective in the majority of cases (6). As exposure to sunlight has been reported to improve the skin manifestations of PL, it was decided to start photo(chemo)therapy on a group of patients with this disease. Moreover, as it has been suggested that photo(chemo)therapy influences the lymphocytes of the skin (7), it was hypothesized that photo(chemo)therapy might influence the course of the disease. It has also been reported recently that PUVA treatment was capable of inducing remission (4, 5). The patients

were divided into acute and chronic type on clinical and histopathological criteria in order to find out if there might be a different response to treatment. Immunofluorescence studies have not been helpful for the diagnosis for the distinction between acute and chronic PL (8).

It is clear that the treatment modalities used in this study were able to induce, in general, longer lasting remissions, irrespective of the type of PL. In view of the previous unsuccessful therapies in these patients, one may assume that several of the patients have been cured. It must be mentioned, however, that in one of the patients a good result was obtained only after a second course of photo(chemo)therapy. The remission periods obtained in this study are longer than those already reported; the reason for this is not clear. As treatments given to our patients were not confined to the winter period, an additional beneficial effect of further exposure to sunlight cannot be excluded. Nevertheless, it appears that photo(chemo)therapy can be considered to be an additional useful treatment modality for PL.

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A Retrospective Study of Cataract Formation in 96 Patients Treated with PUVA

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Abstract. Studies in guinea pigs have shown formation of cataract when they are treated with 8-methoxypsoralen (8-MOP) and UVA irradiation. 96 patients treated with PUVA between 1975 and 1980 were examined to observe if cataract formation had occurred more frequently in these patients. No patient developed cataract during the PUVA treatment period and these findings were found to correspond to those in a "standard population".

Key words: PUVA treatment; Cataract formation

Studies in guinea pigs treated with 8-methoxypsoralen (8-MOP) in doses corresponding to 140 times the therapeutic dose, followed by prolonged exposure to ultraviolet light (UVA), have demonstrated cataract formation in the animals (2, 3).

Up till now, no reports are available showing cataract formation in patients treated with PUVA. The present study comprised 96 patients treated with PUVA during the period 1975–80. The aim was to establish whether this group of patients suffered more frequently from cataract than might be expected in a "standard population".

MATERIALS AND METHODS

During the study period, 120 patients were treated with photochemotherapy and of these, 96 patients satisfied the requirements to enter the present study.

The 96 patients were 42 women and 54 men, aged 18 to 81 years (average 49 years). In the different age groups the patients were divided into subgroups according to the ophthalmologic findings at the latest examination. The definition were: "no cataract", "unchanged cataract" or "change in cataract" (Table I).

Initially the PUVA treatment was given four times a week, and subsequently twice a week or once a week. Two hours before treatment the patient ingested 0.4–0.6 mg 8-methoxypsoralen (Meladinine®) per kg. During treatment the patients had their eyes protected by dark glasses and were requested to wear protection glasses (Black-Ray UVC-303) for 24 hours after treatment.

The ophthalmologic examination included visual acuity, ophthalmoscopy, slit lamp examination and photo of the lenses. All examinations were made in mydriasis. Before starting and during the treatment the following haematological parameters were performed: erythrocyte sedimentation rate, haemoglobin, leukocyte count, thrombocytes, creatinine, carbamide, alkaline phosphatase and alanine-amino-transferase.

Before and during the treatment the skin was examined to search for carcinomas.

RESULTS

No patient developed cataract during the PUVA treatment. Of the 96 patients, 36 (37.5%) had cataract when commencing the PUVA treatment. The remaining 60 patients (62.5%) were free from any sign of cataract both before and after the PUVA treatment. 28 (77.8%) of the 36 patients had "unchanged cataract". In the remaining 8 patients slit lamp examination gave the impression of cataract growth. The distribution regarding age, length of observation time and the visual acuity results in these 8 patients are shown in Table II.

DISCUSSION

In 1974 Parrish et al. (9) introduced the treatment of psoriasis with psoralen given orally and followed by UVA irradiation (PUVA treatment). Since then this treatment form has increasingly been used for the treatment of various diseases of the skin. However, the observations of Cloud et al. (2, 3) have given cause to reconsider whether PUVA treatment might cause cataract formation.

El-Mofty & El-Mofty (5) described 11 patients treated with photochemotherapy. They were aged 20–40 years. The duration of therapy was 5–23