

CLIMATE THERAPY FOR SWEDISH PSORIATICS ON HVAR, YUGOSLAVIA

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Abstract. Climate therapy in Yugoslavia for Swedish psoriatics during 1969 and 1970 are summarized and the results are correlated to some proposed basic gradings of the disease. 352 patients were treated by salt bathing and sun exposure. 88% of the patients were improved, 25% completely healed and 37% much improved. The initial cure rate is influenced by the intensity and the course of psoriasis and the tendency of seasonal variations but to a much lesser degree by the extent of the lesions and not at all by the tendency to periodicity or by the occurrence of joint complaints.

Deterioration within 1 month after the treatment was mentioned in a follow-up study by 41% and within 2 to 6 months by another 42% of those patients who had been improved during the treatment. The rate of regression was not influenced by the extent of the psoriatic lesions before the treatment or the degree of improvement after, nor the intensity of the lesions before or after the treatment or by the course or the tendency to periodicity of the disease.

During the last few decades climate therapy for chronic skin disorders has mostly been given for different types of eczemas. Good results have been reported concerning treatment both in the high mountains and at the seaside (1, 2, 7, 12, 13, 15, 20, 21). However, encouraging results have also been reported concerning the treatment of psoriasis (1, 2, 3, 5, 8, 9, 10, 21).

The first experiences of climate therapy for Swedish psoriatics were presented by Magnusson & Hellgren in 1968 (14). Since 1969 a more extensive climate therapy has taken place on the island of Hvar, Yugoslavia. The aim of this paper is to summarize the results of this treatment during the first 2 years, and to analyse the results in the light of some clinical gradings for describing the disease (17).

MATERIAL AND METHODS

During 1969 five treatment periods of 6 weeks each were undertaken, and during 1970 five periods of 4 weeks each. About 50 patients were treated in each period.

The main essentials of the therapy were sun and salt bathing. Topic remedies such as corticosteroids were mostly avoided, but keratolytics such as salicylates were used mainly in the beginning of the period. All therapy was managed by the patients themselves but supervised by two Swedish nurses.

In Fig. 1 is presented the age distribution and the extent of the psoriatic lesions before treatment, and in Fig. 2 the duration of the disease.

In 1969 90 patients, i.e. one-fourth, were examined at the Department of Dermatology, Karolinska sjukhuset, Stockholm before and after the treatment period. In 1970 all patients were examined on Hvar at the beginning and at the end of the period by a dermatologist from the clinic.

Methods for evaluation of the treatment

In the evaluation of the effectivity of the climate therapy a grading of the severity and course of psoriasis has been used (17).

The *extent* of the psoriatic lesions in per cent of the body surface:

- (I) mild < 5%
- (II) moderate 5-30%
- (III) severe 30-75%
- (IV) very severe > 75%

The *intensity* of the psoriatic lesions:

- (I) mild infiltration, no scaling
- (II) mild infiltration, mild scaling
- (III) moderate infiltration, moderate scaling
- (IV) severe infiltration, massive scaling

The *course* of psoriasis since the onset:

- (I) mild symptoms, continuous or periodical
- (II) moderate symptoms, continuous or periodical
- (III) severe symptoms, continuous or periodical
- (IV) very severe symptoms, continuous or periodical

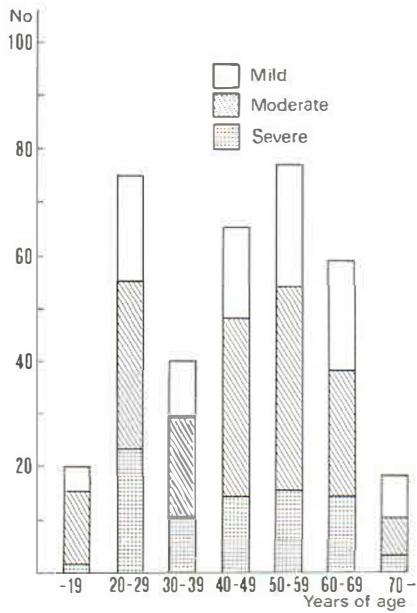


Fig. 1. Distribution of age and extent of psoriasis before treatment.

The *periodicity* of the disease was registered. The criterion periodical requires that the patient had been completely or almost completely free from psoriatic lesions during definite time periods.

Seasonal variation implies a definite improvement though, however, not necessarily complete recovery from the disease during the summer in Sweden.

During the early treatment period the patients were asked to answer a questionnaire including questions about the onset of the disease, the course and eventual periodicity of the disease, the types of lesions and the extent of the lesions during the time since the onset.

A *follow-up investigation* was made by the use of a questionnaire by post two, four, and six months respectively after the end of the treatment period. Here were included questions concerning regression of the disease, when it happened, and of what type and extent

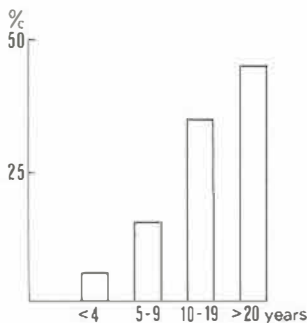


Fig. 2. Duration of psoriasis in 327 patients.

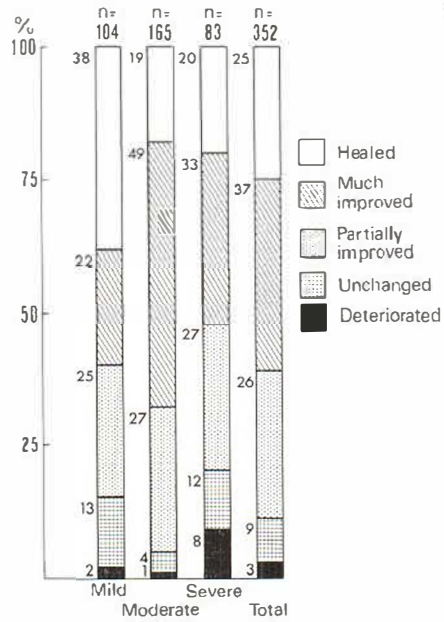


Fig. 3. Initial result of climate therapy correlated to the extent of psoriatic lesions before treatment.

the lesions were when they appeared. Answers were received from 320 patients (91%). Because the patients were widely dispersed, personal examinations and interviews were impossible.

RESULTS

Fig. 3 shows the initial results of the climate therapy correlated to the extent of the psoriatic lesions before treatment. Table I gives the initial result expressed as the maximum intensity of the lesions before and after the treatment. Fig. 4 gives the initial result correlated to the course of the disease since the onset, but disregarding the periodicity. The initial result correlated to the

Table I. Initial result of climate therapy expressed as intensity of psoriasis before and after treatment, in percent (n=262, 1970)

Intensity of psoriasis before treatment	Intensity of psoriasis after treatment					Total
	0	I	II	III	IV	
0-I	5	4	—	—	—	9
II	11	21	6	—	—	38
III	7	21	16	5	—	49
IV	0.3	1	2	0.3	0.3	4

tendency to periodicity is shown in Fig. 5, and correlated to the tendency to seasonal variations in Fig. 6. Fig. 7 presents the initial result correlated to the occurrence of joint complaints ever had, except those of obvious traumatic origin.

Improvements were registered in altogether 88% of the patients. 25% were considered healed, 37% much improved, and the remaining 26% partially improved. 9% were unchanged and 3% deteriorated during the treatment. These figures are based on those who completed the treatment period. Seven patients had to abandon the course, three of them because of serious deterioration of the skin disease, and the other because of other diseases.

Deterioration within 1 month after treatment was mentioned in the follow-up study by 41% of those who had been improved, and within 2 to 6 months by another 42%. Thus only 17% stated no deterioration after 6 months.

The rate of deterioration in those who had been improved during the treatment is shown in Fig. 8, correlated to the extent of the psoriatic lesions before treatment and to the grade of improvement at the end of the treatment period. Table II shows the deterioration correlated to the intensity of the psoriatic lesions before and after



Fig. 5. Initial result correlated to the tendency to periodicity of psoriasis (1970).

the treatment. In Fig. 9 is the same rate correlated to the course of psoriasis since the onset of the disease, and in Fig. 10 to the tendency of periodicity of the disease.

195 of the patients had earlier been treated for psoriasis at hospitals in Sweden and 68% of

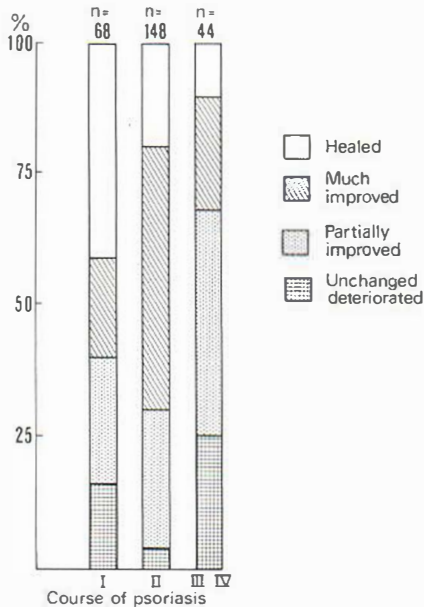


Fig. 4. Initial result correlated to the course of psoriasis since onset (1970).

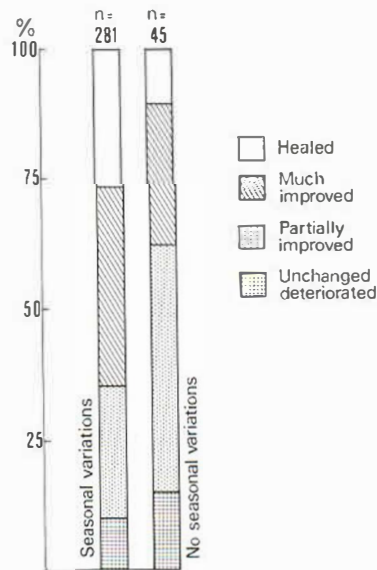


Fig. 6. Initial result correlated to the tendency of seasonal variations of psoriasis (1970).

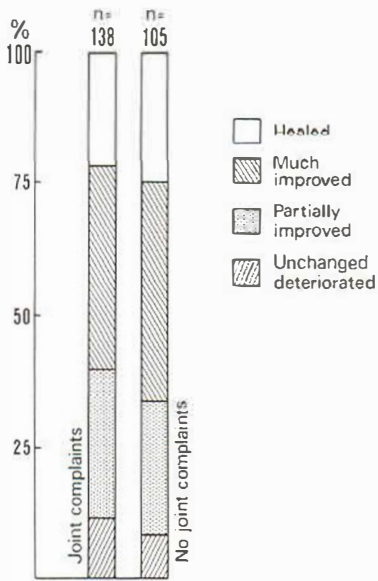


Fig. 7. Initial result correlated to the statement of joint complaints, past or present (1970).

them stated that the improvement during the climate therapy was more rapid than during the hospitalization. 23% stated the improvement to be as rapid as, and only 9% as slower than during hospitalization.

58% of the patients who had been improved during the climate therapy but later deteriorated mentioned in the follow-up that the regression came later than after traditional treatment in Sweden. However, 77% of the patients thought that the disease was generally milder during the follow-up observation time of six months, than previously.

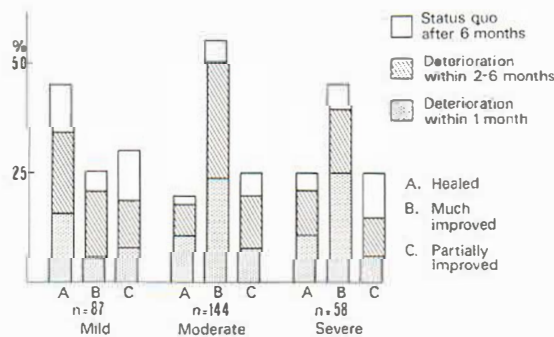


Fig. 8. Deterioration after climate treatment correlated to the extent of psoriatic lesions before treatment.

Table II. Deterioration correlated to the intensity of psoriatic lesions before and after treatment (1970)

Intensity of psoriasis	n	Deterioration within	
		1 month (%)	2-6 months (%)
Before treatment			
0-I-II	122	39	38
III-IV	140	41	41
After treatment			
0-I	184	43	43
II-III-IV	78	31	35

DISCUSSION

In the whole material of 352 examined patients, complete recovery was registered in 25% and great improvement in another 37%. Only 12% of the patients were unchanged or worse after the treatment period. No comparable materials of psoriatics treated in a standardized way are available from Sweden. Janula & Novotny (10) reported a comparison of the results during hospitalization and during rest at the seaside with bathing and sun exposure. In the hospitalized patients, recovery was registered in 27% and improvement in 67%, whereas in the patients

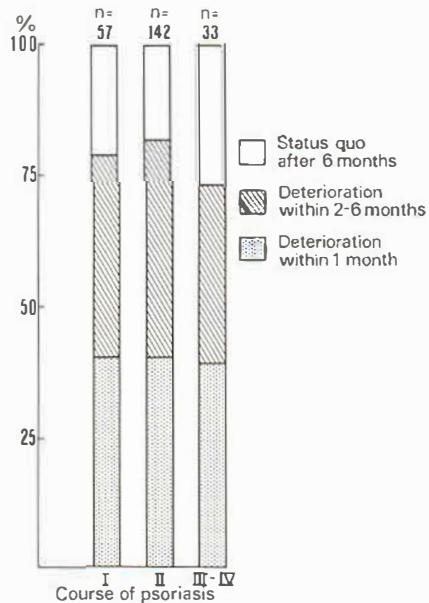


Fig. 9. Deterioration correlated to the course of psoriasis (1970).

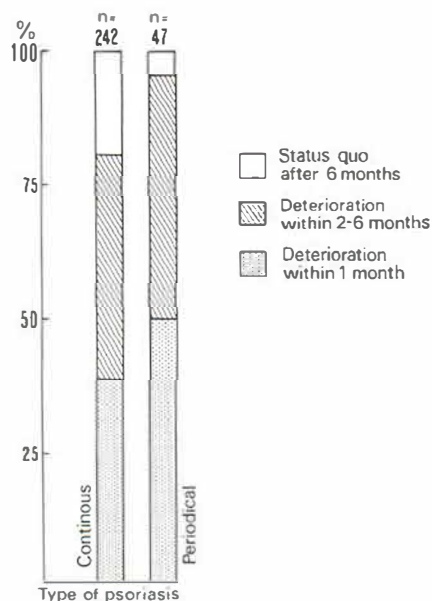


Fig. 10. Deterioration correlated to the tendency to periodicity (1970).

treated with bathing and sun, mostly during five weeks each, 55% recovery and 38% improvement was recorded.

Borelli (1) gives 21% recovery and 70% improvement in his report on climate therapy.

It is almost impossible, however, to compare the materials mentioned because of the lack of available data concerning the severity of the psoriatic disease and of follow-up studies of the recidivistic tendency.

INITIAL RESULTS

In the evaluation of the present results of climate therapy for psoriasis some basic gradings have been used in order to define the material and to facilitate comparisons with other materials. The proposed gradings will be discussed in detail elsewhere (17).

When dividing the material according to the extent of the lesions before treatment no statistically significant difference in the initial cure could be found but between those who had been healed and much improved in the moderate and the severe extent group ($0.05 > p > 0.01$).

Among the patients in the mild extent group there were several with minimal or without any

psoriatic lesion at all who were judged as unchanged after treatment.

With regard to the intensity of the lesions it is shown that the initial cure rate is much lower in patients starting with a more severe degree of intensity (grades III+IV) than in those starting with a milder ($p < 0.001$).

There is a statistically highly significant difference in the initial cure rate between the patients with a mild or moderate and severe course of the disease during the years since the onset ($p < 0.001$). The tendency of periodicity is not included in this calculation. The periodicity is separately shown not to influence on the initial cure rate (Fig. 5). When the tendency to seasonal variation is taken into account, however, there is a clear distinction from those patients whose disease does not have this tendency ($p < 0.001$).

Joint complaints, past or present, of obvious non-traumatic origin, as an expression of a more systemic involvement of the disease, did not influence the initial cure rate (Fig. 7). The improvement of the joint complaints has not been studied separately.

OCCURRENCE OF RECIDIVE

In the follow-up, the rate of regression after the climate therapy was studied. The figures here are based on answers by post given by the patients and may be somewhat less exact than the figures for the initial results of the therapy based on examinations by trained dermatologists.

In the whole material, deterioration was stated to occur within 1 month after the treatment by 41% of those who showed some degree of improvement during the treatment, and within 2 to 6 months by another 42%.

Janula & Novotny (10) cited Bartunková who registered regression in 50% of patients treated with bathing and sun but without any reference to the length of observation.

The duration of the period between two attacks of psoriasis has been studied by Mischler & Krebs (16), correlated to different topical treatments. They gave the mean period of freedom from psoriatic lesions after application of tar and ultraviolet light (Goeckermann treatment) as 35 days. 45% of their patients had deteriorated within 1 month and another 39% within 2 to 6 months after treatment. After dithranol therapy,

as a comparison, 53% had deteriorated within 1 month and the other 47% within 2 to 6 months after the treatment.

Other investigations of the result of treatment with combinations of ultraviolet light, tar, dithranol, and salicylic acid have shown relapses in between 12 and 26% after 1 month and in more than 60% after 6 to 12 months (4, 11, 18, 19). Relapses after topical steroid therapy have been reported to occur in 95% within 1 month (6).

The tendency to deterioration in the follow-up was statistically influenced neither by the extent of the psoriatic lesions before treatment nor the degree of improvement after (Fig. 8).

No greater tendency to regression could be shown in patients with a more severe course of psoriasis than in those with a more mild (Fig. 9), or with a periodical type of disease (Fig. 10).

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