

Climatotherapy of Psoriasis at Safaga-Red Sea
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A natural selective ultraviolet phototherapy along with bathing in the sea was utilized in the management of psoriasis at Safaga – Red Sea.

In 80 patients with psoriasis, 90% achieved complete clearing or excellent improvement. The results compare favorable with other therapeutic regimens used in the treatment of psoriasis. Since systemic medications are avoided, the advantage of Safaga – Climatotherapy is that the treatment is natural, pleasant and without the serious side effects sometimes associated with other methods.

Introduction:

Psoriasis is a chronic inflammatory skin disorder, which affects both males and females. It is neither contagious nor dangerous. The disease takes the form of red scaly patches associated with pruritus. The skin lesions may extend all over the body including the scalp (1,2). The main problem for the psoriasis patient is the conventional treatment, which includes steroid ointments, artificial ultraviolet – rays and powerful systemic drugs. Most of these therapeutic agents have many serious side effects on the skin and the internal organs (3,4).

Climatotherapy has become a well-established modality for the treatment of psoriasis. It involves various regimens of seawater bathing and sunlight exposure, combined with application of emollients, rest and relaxation over several weeks (5).

Safaga at the Red Sea was found an ideal area for climatotherapy of psoriasis. Many natural factors are present there: plentiful sunshine due to cloudless sky prevailing at least 350 days a year, warm, clear, non-polluted or dusty weather. These elements constitute the main components of the natural therapy of the disease at this area.

Methods

Patients:

Eighty subjects suffering from psoriasis were chosen. Forty were males, thirty females and ten children from 2 to 11 years old. Complete medical examination was done for all patients.

Therapy:

Patients were instructed to stop any medication for psoriasis before starting the course of climatotherapy and also for 12 weeks after the termination of the course.

The treatment for 80 psoriatic patients consisted primarily of sea bathing for 5 min. followed by 15 min. sun exposure, twice per day; the first being in the early morning while the second in the late afternoon.

Next day , the time of exposure was increased to 10 min. sea bathing and 30 min. sun exposure , twice per day .

This regimen was continued for 4 weeks.

Keratolytic agents such as salicylic acid ointments of various concentrations according to the degree of scaling, body and bath oils were applied on the affected skin. Application was done daily at night.

All patients were followed up for 12 weeks, after the termination of their climatotherapy course.

Results

The results of this regimen are usually dramatic. In the vast majority of cases , the rough red patches and scales disappeared or were greatly alleviated . The percentage improvements was estimated relative to the original extent of the disease, then classified into groups and defined as:

- Minimal improvement	5-20%	1 patient
- Definite improvement	20-50%	3 patient
- Considerable improvement	50-80%	10 patient
-Excellent improvement	80-95%	22 patient
- Complete clearing up	95-100%	44 patient

Table 1 : Results of Climatotherapy at Safaga – Red Sea of 80 psoriatic patients for 4 weeks :

Degree of improvement		Number of patients	Percentage
A	Complete clearing up	44	55
B	Excellent improvement	22	27.5
C	Considerable improvement	10	12.5
D	Definite improvement	3	3.75
E	Minimal improvement	1	1.25
F	No improvement	None	Zero

The results of the follow-up of the patients for 12 weeks later, show that some of the patients continue to have more improvement while others have different grades of relapse.

In the completely cleared group (A), only 2 had mild relapse.

In group (B) , 12 were completely cleared up , and 6 had definite improvement while 3 had recurrence . Again from the 10 patients of the considerably improved group (C), 8 showed different degrees of improvement while 2 had some relapse. Two patients showed more improvement and one had relapse from group (D), while the last patient who had minimal improvement had a relapse (Table 2).

Table 2 : Results of follow-up of 80 psoriatic patients after 12 weeks from the end of climatotherapy regimen at Safaga – Red Sea :

Groups of treated patients	More improvement			Recurrence or relapse		
	Complete clearing up	Definite	minimal	mild	moderate	Severe
Group A	-	-	-	2	-	-
Group B	12	6	1	1	2	-
Group C	3	4	1	1	1	-
Group D	-	2	-	1	-	-
Group E	-	-	-	-	1	-

Discussion

Climatotherapy is defined as a treatment combining the natural elements of a specific geographic location. This has been used at Safaga, a region situated at the Red Sea shore, 50 Km to the south of Hurghada city which has characteristic natural climate and geographic features . The nearby mountains surround Safaga shore, They act as a natural barrier preventing winds, that is why the atmosphere is non-dusty and highly clear. As a result of this environment, the amount of ultraviolet rays reaching earth is much higher than in any other region.

On the other hand, the shore at Safaga takes the form of a bay allowing the ultraviolet rays to the land.

In addition to these geographic features, it was found that the seawater at Safaga, is characterized by its high salts content (Table 3).

Human body may be influenced by the dissolved chemical components in the water in two ways: first as a result of the influx and antiflow of ions, thus changing in the equilibrium of skin and second by the penetration of certain chemical components or grasses into the body.

It is well known that water salts are essential in the treatment of psoriasis combined with the effect of long wave ultraviolet rays which are prevailing in the early morning and late afternoon (6-10) . These factors are available all over the year in Safaga, and form the basis for management of psoriasis by climatotherapy. This concept is in an accordance with that described by Avrach (5) who mentioned that the high salt seawater bathing and sunlight exposure form an effective therapy for clearing up psoriasis.

Results of the current study encourage the use of climatotherapy for psoriasis at Safaga – Red Sea. The healing of 70% of the patients and marked improvement in another 25%, suggest that some correlation does exist between the natural factors and the clinical response to this method of treatment. Besides, there isn't any contraindication for the presence and therapy in this area meaning that psoriatic patients complaining of other diseases as heart troubles, atherosclerosis, diabetes mellitus, haemorrhagic disorders and so on, have no restrictions for climatotherapy at Safaga – Red Sea.

Table 3 : Analysis of seawater at Safaga – Red Sea :

Parameters	Value	
PH	8.4	
Turbidity NTU	0.3	
Salinity	34	
Alkalinity as CO ₃	16	Mg/1
Alkalinity as HCO ₃	104	Mg/1
Silica SiO ₂	0.91	Mg/1
T.D.S	42000	Mg/1
Total Hardness as CaCO ₃	7700	Mg/1
Ca Hardness as CaCO ₃	1200	Mg/1
Mg Hardness as CaCO ₃	6500	Mg/1
Chloride	22200	Mg/1
Sulfate	3300	Mg/1
Iron	0.6	Mg/1
Mn.	Nil	Mg/1
T.Count at 22	19	
Fe. Coliform	Nil	Mg/1

Another important element at Safaga may be psychological; the natural and social surrounding help them to relax and this in turn seems to aid the treatment.

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