ORIGINAL CONTRIBUTIONS

MINUTES THERAPY IN PSORIASIS

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Thirty one cases of widespread psoriasis were treated with daily short-term application of 1-3% dithranol and 3% salicylic acid in soft paraffin base for 10 to 30 minutes. The lesions responded remarkably to this regime, the minutes therapy. The average rate of clearance of lesions was between 15-29 days (mean 22 days). Fourteen (46.6%) of 31 cases showed complete clearance of the lesions, 12 (39.9%) cases showed marked improvement, and in 2 (6.6%) cases, the condition deteriorated.

Key words : Dithranol, Minutes therapy, Psoriasis.

Psoriasis is a disease of unknown aetiology, and hence the final word in its specific therapy is yet to be said. In the past, both the topical modes of therapies in the form of various regimes like Goeckerman,[1] Ingram,[2] Farber and Harris[3] and systemic therapies like corticosteroids,[4] immuno-suppressive drugs,[5] retinoids,[6] PUVA[7] and peritoneal dialysis[8] have been tried with varying degrees of success. Most of the topical regimes are cumbersome, time-consuming, at times require hospitalisation and the medicines must remain in contact with the skin throughout the day. On the other hand, systemic drugs are not without serious hazards.

The Minutes therapy[9] requires application of the medicine for a maximum period of half an hour, only once a day. The treatment is easy to carry out and can be given in the out-patient. It does not require any bandaging and avoids hospitalisation. Similar studies have not so far been reported from India.

Materials and Methods

Thirty one cases of extensive psoriasis between the ages of 20-53 years were taken up for the study. There were 21 males and 10 females. The duration of illness varied from 6 months to 5 years and the extent of involvement of the skin varied from 50% to 80% of the body surface area. Cases of erythrodermic, pustular, arthropathic or flexural, and patients with scalp and face lesions were excluded from the study. Dithranol (Glaxo laboratories) in 1-3% concentration with 3% salicylic acid in yellow paraffin base was applied topically. Concentration of the medicine was 1% for the first 3 days, and it was increased by 1% after every 3 days till the full concentration of 3% was achieved on the seventh day onwards. The patients were kept in a warm humid room during the period of application for better penetration of the medicine. Bandaging was not done. The humidity of the small room was maintained by steaming the room. The medicine was rinsed off with bland coconut oil and tepid water. The duration of application was 10 minutes for the first 3 days, 20 minutes for the next three days and 30 minutes from the seventh day onwards. Only plaque type lesions were treated. The area was left open without any medication, and the patient was asked to come for further treatment the next day. An equal number of patients matched for the age, sex and the extent of lesions as far as possible were

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treated with the standard Ingram technique using 0.5 to 1% dithranol. Criteria laid by Moschella[10] were suitably modified in the present study for recording the results.

Results

Table I shows various grades of response of the control patients to the Ingram technique. Grade 3 response was achieved in 16 cases after 6 weeks and grade 4 response was achieved in 8 cases after 6 weeks.

Table I. Grades of response in the control series.

Grades of response	Number of patients improving in weeks						
	1	2	3	4	5	6	7
4	—	—	—	3	7	8	—
3	—	—	7	11	11	16	—
2	—	6	10	12	9	4	—
1	31	25	14	5	4	3	—
0	—	—	—	—	—	—	—
—1	—	—	—	—	—	—	—

Table II shows various grades of response in the test series. Grade 3 response was achieved in 12 cases after 4 weeks and grade 4 response was achieved in 14 cases after 5 weeks. Five cases were removed from the test series, that is grade-1 response in 3 cases and grade 0 response in two cases who developed blisters at the edge of the psoriatic plaque and complained of intense erythema in whom the treatment was discontinued. Most patients in the test group complained of mild irritation and burning which were tolerable.

Table II. Grades of response in test series.

Grades of response	Number of patients improving in weeks						
	1	2	3	4	5	6	7
4	—	—	7	13	14	—	—
3	—	4	11	12	12	—	—
2	—	16	8	1	—	—	—
1	29	6	—	—	—	—	—
0	2	2	2	2	2	—	—
—1	—	3	—	—	—	—	—

Comments

Topical application still remains the main mode of therapy for psoriasis. Topical tar and dithranol have stood the test of time and still remain the two most commonly used drugs for effective control of psoriasis. In the classical regimes of Goeckerman and Ingram, the medicines have to be applied throughout the day, the patient has to be hospitalised in most of the cases and requires bandaging as in Ingram technique.

The minutes therapy was tried with a view to eliminate the above-mentioned factors. It is well known that dithranol has cytotoxic or cytostatic effect. Anthralin, 10 acetyl anthralin and the dimer in concentration comparable with the tissue concentrations achieved during therapy, completely inhibit cell growth and thymidine incorporation. Anthralin also binds to the mitochondrial DNA and inhibits the enzyme.[11] Salicylic acid prevents the decomposition of anthralin.

On scrutinizing the data of control series, it was observed that grade 3 and grade 4 response was observed in cases where the duration of illness was less than 2 years and in the test series in which high concentration i.e. 3% of dithranol was used, the duration of illness had no bearing on the clearance of lesions. Schaeffer et al.[12] first used dithranol application for a short period. Runne and Kunz[9] had used 2% dithranol concentration for 20 minutes in their patients and reported clearance of the lesions in 26.9 days on the average, whereas our cases showed the clearance of lesions in 22.5 days. The response to therapy was quicker by 4.4 days on an average. Mac Donald et al[13] using 2% concentration of dithranol for 20 minutes, found that the drug was useful in the clearance of psoriatic lesions in 22$\pm$6 days. It appears that plenty of sunshine with UVL available in the Indian subcontinent is of additive value for early clearance of the lesions of psoriasis.

Skin irritation and pinkish or lilac colour or tanned copper colour staining as observed in our study has also been reported by various workers when treating cases with high concentrations of dithranol.[3,9,12] Blister formation[11] has been observed as side effect in 2 cases. The incidence of iritis and rheumatic symptoms were not seen in the present study. This regime is not recommended for children, erythrodermic or pustular psoriasis, or for psoriasis involving the face, scalp and flexures.

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