

SHORT COMMUNICATIONS

SHORT CONTACT THERAPY IN PSORIASIS TAR VS ANTHRALIN

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Thirty cases (group I) having psoriasis were studied with a view to assess the efficacy of combination of short contact coal tar therapy, sunrays exposure and short contact anthralin therapy. Results were compared with thirty patients (group II) with psoriasis using anthralin paste as per Ingram technique as control.

The combined short contact therapy in group I patients with intensive 90 to 120 minutes treatment sessions done once in every alternate day resulted in complete clearing in 19 (63.3%) patients, 3 (10%) showed more than 50% clearing of lesions, 6 (20%) had 21-50% improvement of lesions, one (3.3%) had 5-20% improvement and disease got worse in one (3.3%) case. The average rate of clearance of lesions started to appear between 10-22 days with a mean of 16 days.

In group II out of 30 patients using anthralin paste every day, 16 (53.3%) showed complete clearing of lesions, 5 (16.6%) showed more than 50% clearing of lesions, 4 (13.3%) had 21-50% improvement of lesions, two (6.6%) patients had 5-20% improvement of lesions and the disease got worse in 3 (10%) cases. The average rate of clearance of lesions started to appear between 18-28 days with a mean of 23 days.

The combined short contact therapy schedule allows minimal time away from work, decreased hours per week in contact with coal tar and anthralin, decreased cost and a low risk of side effects.

Key Words : Psoriasis, Short contact therapy, Tar, Dithranol

Introduction

Therapy for psoriasis has undergone many changes and evolutions. Despite fluctuation in popularity of their uses, coal tar and anthralin have remained one of the main modalities of treatment since their introduction more than five decades ago by Goeckerman¹ and Ingram² respectively. The greatest success with Goeckerman treatment and Ingram regimen is achieved when the patient remains in the hospital. However, the resultant inability of a patient to earn a day time living generally limits a full time

hospitalisation care. With the average hospitalisation now costing more and more out-patient therapy costs a small fraction of this amount. Clearly a need exists for shorter treatment methods. One answer to this problem lies in the use of short contact tar therapy (SCT) and short contact anthralin therapy (SCAT).³

In this study we have made an attempt to know the efficacy of combined use of short contact tar (SCT) and short contact anthralin therapy (SCAT) applied topically alternate day in psoriasis.

Materials and Methods

Clinically diagnosed 60 psoriasis patients who attended the Skin Centre at Service Hospital between 1987 to 199

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were included in the study. The diagnosis of psoriasis was confirmed by histopathological examination. The patients having pustular, flexural and erythrodermic psoriasis, and lesions involving axillae, groins, flexural areas and genitals were excluded from this study.

The selected 60 patients were divided into 2 groups. Thirty patients (group I) were given short contact tar therapy, sunrays exposure and followed by short contact anthralin therapy once in every alternate day. 10% liquor picis carbonis and 3% salicylic acid in vaseline base was applied on the lesions and was removed with mineral oil after 30 minutes followed by a warm water bath. From the scalp the tar preparation was removed with shampoo. Soon after bath, patients were advised to expose to direct sunlight for 15 minutes to each side of the body affected. The longest exposure time was 30 minutes. Next, the patient was given short contact anthralin therapy. Dithranol was incorporated in yellow paraffin base containing 0.5% salicylic acid. Dithranol was used initially at a concentration of 0.1% for first 3 days and concentration was increased to 0.5% to 2% gradually within one week depending on the degree of erythema formation and the development of pigmentation. The medicine was applied on the lesions sparing the face, intertriginous areas and genitalia for 20 minutes once in alternate day. The medicine was removed with bland coconut oil followed by a shower of soap and water after 20 minutes. Total time taken by the patient was 90 to 120 minutes once in every alternate day.

In group II, as control, 30 patients were treated daily with Ingram techniques using topical application of 0.5% to 1% dithranol paste and a contact period of 24 hours.

The sun exposure in the both groups was initially for 5 minutes which was gradually increased to 15 minutes to each side of the body. The longest exposure time was 30 minutes. The time of exposure in both groups was identical.

The above regimens were continued for a period of eight weeks in both groups. Weekly follow up and assessment of progress of treatment was carried out in each patient. The degree of scaling, palpability and redness of the lesions were recorded (Table I). Erythematous reactions and pigmentation of uninvolved skin were assessed according to 1 to 3 scale as slight, moderate and marked.

Results

Out of 30 patients who received SCT+SCAT therapy 26 were male and 4 were female. The age of the patients ranged between 15 to 50 years. The average duration of psoriasis was 5 ± 3 years. Affected body area in this was $50 \pm 20\%$. Majority (83.3%) were suffering from plaque type of psoriasis. 83.4% cases had received some sort of previous treatment.

In group I, out of 30 patients receiving SCT+SCAT therapy once in every alternate day, complete clearing of lesions was achieved in 19 (63.3%) patients, and 3 (10%) showed more than 50% clearing (table I). In group II complete clearing of lesions was achieved in 16 (53.3%) cases and more than 50% clearing was noticed in 5 (16.6%) cases.

Ingram's regimen in group II patients induced far more side effects. In group II moderate to marked erythema appeared in 10 (33.3%) cases whereas 6 patients in group I had developed mild to moderate

Table I. Therapeutic response to SCT+SCAT (group I) Versus Ingram Regimen (group II) in Psoriasis

Criteria	Improvement (Percentage)	No. (%) of patients	
		Group I	Group II
Complete flattening of plaques including borders	100	19 (63.3)	16 (53.3)
Complete flattening of all plaques but borders of plaques still palpable	51-90	3 (10)	5 (16.6)
Partial flattening of plaques less scaling and erythema	21-50	6 (20)	4 (13.3)
Slightly less scaling and/or erythema	5-20	1 (3.3)	2 (6.6)
No change	0	-	-
Psoriasis worse	0	1 (3.3)	3 (10)

Table II. Side effects of SCT+SCAT therapy (Group I) versus Ingram Regimen (Group II) in Psoriasis

Side effect	No. (percentage) of cases	
	Group I	Group II
Pruritus	9 (30)	6 (20)
Folliculitis	-	10 (33.3)
Burning Sensation	8 (26.6)	18 (60)
Hyperpigmentation		
Mild (1)	6 (20)	8 (26.6)
Moderate (2)	2 (6.6)	6 (20)
Severe (3)	-	4 (13.3)
Erythema		
Mild (1)	5 (16.5)	8 (26.6)
Moderate (2)	4 (13.3)	6 (20)
Severe (3)	2 (6.6)	4 (13.3)

erythema. Pruritus was the most common (30%) side effect in group I cases and hyperpigmentation in uninvolved skin was the most common (60%) side effect observed in group II patients, (table II).

Comments

In present study, in group I patients receiving combined therapy, an average of

18 treatment over an average of 6 weeks produced an average clearing of 85% lesions. The number of treatments needed for clearing, as well as the percentage of the patient's total involved body area clear of disease at the end point, compared favourably to that reported with both PUVA therapy,⁴ conventional Goeckerman therapy⁵ and short contact anthralin therapy.³

Numerous advantages are evident through the use of combined SCT and SCAT for these patients. Shorter treatment time avoids patient's fatigue and increases patient's compliance. As mentioned, the longest exposure time with direct sunlight was 30 minutes. The three or four days per week treatment of 90 to 120 minutes, in contrast to 24 hours a day in a hospital, requires only a limited time away from work. In addition, these out patient care are far less costly than hospitalisation.

The use of sunrays exposure, SCT and SCAT therapy is in many cases an alternative to PUVASOL/PUVA therapy. Although the increased risk of squamous cell carcinoma with PUVA therapy has been

confirmed by numerous authors,⁶ it is generally agreed that the risk of nonmelanoma cutaneous carcinoma is less with tar, tar combined with UVB, or UVB alone.⁷ Anthralin has not been reported to be a carcinogen in patients with psoriasis.⁷

In our study, the skin of many patients had failed to clear with anthralin alone in group II. It is therefore postulated that in a number of patients, the treatment combinations described here and delivered three or four times per week produce similar responses as described with Goeckerman treatment⁵ or short contact anthralin therapy,³ rendered 6-7 days a week.

The number of side effect observed in the study is trivial. The most common being pruritus. Unlike 24 hours application of anthralin in Ingram regimen, we have not come across any pustulosis after combined short contact therapy.

It is concluded that every alternate day short contact tar therapy, sun rays exposure and short contact anthralin therapy for body and scalp psoriasis do not involve any

systemic medication, easy to perform without special equipment and is therefore economic. It can be used not only for indoor patients but probably more for out patient treatment that offers enhanced patient's compliance and safety.

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