PRIODERM LOTION IN THE TREATMENT OF SCABIES

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INTRODUCTION

During the past decade, the incidence of scabies has increased considerably inspite of the availability of several topical pesticides e.g.benzyl benzoate, gamma benzene hexachloride or crotamiton (ISTD, 1979). It has been reported that three principal factors have contributed to the resistance of *Sarcoptes scabiei* to treatment viz genetic, biologic and environmental (Kucirka *et al.*, 1983). Of the many insecticides available, malathion has been highly effective against many insects and acari. Taplin *et al.*, (1982) have found 0.5% malathion lotion to be effective in the treatment of human lice. A study was thus carried out to determine the efficacy of prioderm lotion against this parasitic infestation.

MATERIALS AND METHODS

A total of 24 patients with scabies from the "Home of the Disable" took part in this study. There were 13 men and 11 women, aged 16 to 60 years. All were suffering from disseminated or localized lesions, with typical spinous papulo-vesicular eruptions associated with severe itching. Only two pateints were suffering from secondary pyoderma.

The study was an open non-comparative trial. Prioderm lotion (0.5% Malathion, 11% Terpineolum, 10% Dipentenum, 0.25%, 61 Pini Isopropanolum ad solut; Mundipharma AG, Basle, Switzerland) was applied topically. Each patient was given approximately 28-55 ml of Prioderm lotion ($\frac{1}{2}$-1 vial), a total dose of 140-275 mg of malathion. The patients took a bath in the early morning of the day before treatment. No other therapeutic measures were given.

All patients were treated with one single topical application to the whole body surface. They were requested not to bathe for two consecutive days after the application of the drug.

The assessment of dermatological response was made on 7th and 14th day follow-up visits.

Determination of serum cholinesterase level was made before treatment and on day 7 and day 14 after treatment.

RESULTS

Clinical and laboratory results are shown in Tables 1-4. Out of the 24 patients studied, 20 were considered cured on day 7 and day 14 follow-up examinations. In four patients, 90% of their lesions responded to treatment however, active lesions remained on the hands in 2 cases, in the webs of the right hand and chest in the third case, and on both hands and left forearm in the 4th case. All these 4 patients were considered as treatment failure.

The manifestation of cure of the skin lesions assessed and seen on day 7 were the changes of the spinous papulo-vesicular eruption into dry crust with residual pigmentation and desquamation. In 3 cases who were considered as cured, mild itching was still present after one week, but disappeared after two weeks without additional therapy.

In all but one case, patients experienced a burning sensation after application of Prioderm lotion. However, all patients tolerated

Table 1

Back ground data of patients with scabies before treatment.

No. of Patients	Age (yr)		Weight (kg)		Duration before treatment
	Range	Mean	Range	Mean	
Male:13	17-45	24.9	34-58	41.2	4 weeks
Female:11	16-60	29.2	29-64	44.9	4 weeks*
Total:24	16-60	26.9	29-64	42.9	3-4 weeks

* In one case it was 3 weeks.

Table 2

Distribution of scabies in patients before treatment.

Area of skin lesions	No. of patients
Whole body surface except face, axillae, chest or feet	5
Extremities (hands, arms, feet, legs) and trunk	2
Extremities and groin	2
Extremities and around umbilicus	8
Extremities	5
Arms, feet and groin	1
Hands and around umbilicus	1

Table 3

Dermatological response in 24 patients treated with Prioderm lotion.

Follow-up	No. of patients with spinous papulo-vesicular eruptions	No. with mild superinfection (a few small pustules)
Before	24	2
Day 7	4	0
Day 14	4	0

Table 4

Serum cholinesterase levels in 24 patients with scabies.

Follow-up	No. with normal serum cholinesterase levels (3000-9300 TU)	No. cholinesterase below normal (3000 TU)	No. cholinesterase above normal (9300 TU)
Before	23	1**	0
Day 7	22*	1**	0
Day 14	23	1**	0

* In one case, blood sample on day 7 could not be obtained.
** Same patient.

the lotion quite well. Thus, tolerability has been scored as "good".

In all patients, no significant changes towards abnormality in the serum cholinesterase levels were observed after the treatment.

DUSCUSSION

In this trial, without any concomitant medication or appropriate physical measures, apart from a bath in the early morning of the day of teatment, one single application of 28-55 ml of Prioderm lotion proved to be effective to cure most scabies lesions. However, as shown by the persistence of active lesions on the hands in 4 cases, this area required special attention.

One possibility to explain these failures might be in washing of the hands. This problem should be avoided either by further stressing the need to avoid washing during the two days following treatment or by repeating a second application on the hands.

The burning sensation after application appeared to be of no significance as to acceptance of Prioderm lotion, since all patients tolerated the drug quite well.

The serum cholineslerase levels after treatment were carefully studied and no significant finding towards abnormality was observed. In this respect, the treatment with Prioderm appeared adequately safe in this trial.

SUMMARY

Prioderm lotion, given in one single topical application, proved to be an effective and safe drug for the treatment of scabies in most cases.

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