

# **PRACTICAL EXPERIENCE REPORT ON THE APPLICATION OF DERMASILK ON CHILDREN WITH ATOPIC DERMATITIS**

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**ABSTRACT:** Atopic dermatitis is a chronic inflammatory skin disease whose prevalence continues to increase. The positive effect of DermaSilk Therapeutic Clothing on the severity of atopic dermatitis is known and documented. In this study the effectiveness of DermaSilk in the daily lives of children and adolescents with atopic dermatitis was recorded by questionnaire by paediatricians in their surgeries. No side effects were reported. Symptoms and clinical findings improved significantly.

A significant reduction of itching, sleep disturbance, bloody skin, weeping skin, chapped skin, exfoliation and dry rough skin was reported ( $p < 0.0001$ ).

In this way, the effectiveness of DermaSilk in the outpatient setting was confirmed.

**KEYWORDS:** atopic dermatitis, itching, DermaSilk

## **1. INTRODUCTION**

Atopic dermatitis is a chronic inflammatory skin disease whose prevalence continues to increase. It is based on genetic disorders of the skin barrier function. Mechanical irritation and bacterial superinfection are known factors that lead to the worsening of atopic dermatitis. The positive effect of DermaSilk Therapeutic Clothing on atopic dermatitis patients is known and documented [1-5]. The aim of this test conducted among outpatients by paediatricians in Switzerland is to measure the effect of DermaSilk Therapeutic Clothing in an open prospective experience field.

## **2. METHOD**

42 questionnaire folders on the use of DermaSilk were distributed among 42 paediatricians across Switzerland. The doctors confirmed their participation in the study. When prescribing DermaSilk Therapeutic Clothing, a questionnaire had to be filled in by the paediatrician (Annex I) as well as the patient/his or her parents and returned. The following parameters were determined by the questionnaire: itching, sleep disturbance, bloody skin, weeping skin, chapped skin, exfoliation, dry and rough skin, at the time of admission as well as compared to the previous week.

## **3. RESULTS**

22 paediatricians actively took part in the survey. All in all 52 questionnaires were returned and analysed. All examined patients had atopic dermatitis: 19 girls and 33 boys, 36 in the 0-36 months age group, and 16 in the 3-12 years age group. 32 children had already had topical corticosteroid treatment, most of them with a corticosteroid class 3. 37 children were given other medication: antibiotic creams and ointments, Pimecrolimus, Tacrolimus, different emollients and systemic antihistamines and Epogam capsules. 18 families expressed concerns about the use of topical or systemic corticosteroids.

### **3.1 INITIAL SITUATION**

The anamnesis and clinical information about the patients made by the paediatricians before the treatment with DermaSilk Therapeutic Clothing were:

(Tab. 1 and Fig. 1):

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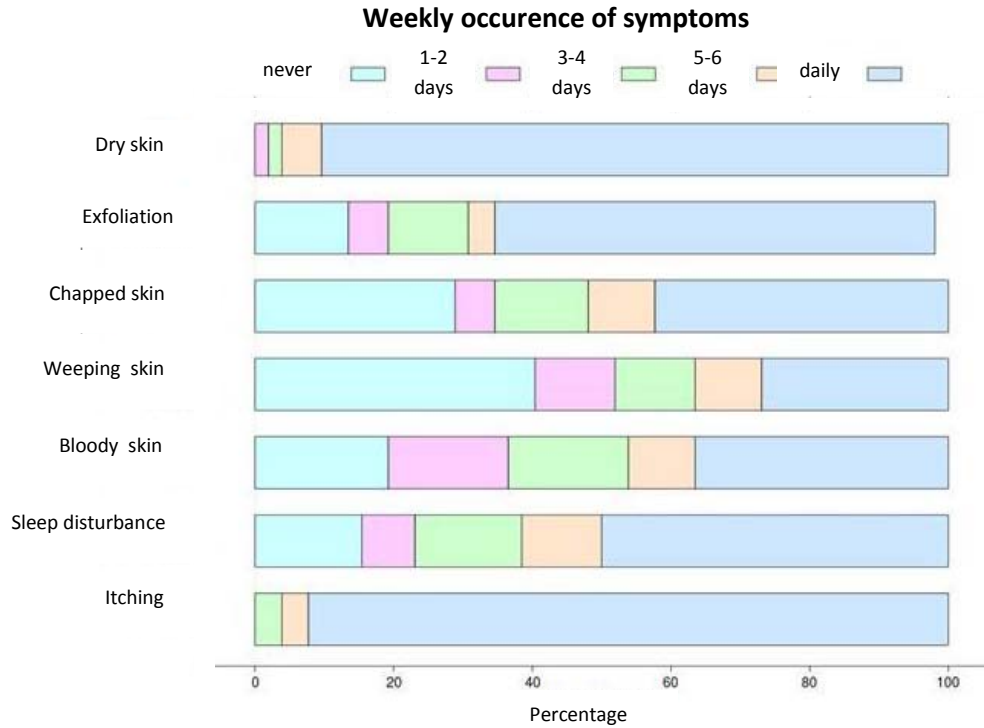
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**Table 1:** Frequency of symptoms prior to application of DermaSilk per week [6].

VARIABLE	LEVELS	n	%	Σ[%]
<b>Itching</b>	never	0	0	0
	1-2 days	0	0	0
	3-4 days	2	4	4
	5-6 days	2	4	8
	daily	48	92	100
	all	52	100	
<b>Sleep Disturbance</b>	never	8	15	15
	1-2 days	4	8	23
	3-4 days	8	15	31
	5-6 days	6	12	50
	daily	26	50	100
	all	52	100	
<b>Bloody Skin</b>	never	10	19	19
	1-2 days	9	17	37
	3-4 days	9	17	54
	5-6 days	5	10	63
	daily	19	37	100
	all	52	100	
<b>Weeping Skin</b>	never	21	40	40
	1-2 days	6	12	52
	3-4 days	6	12	63
	5-6 days	5	10	73
	daily	14	27	100
	all	52	100	
<b>Chapped Skin</b>	never	15	29	29
	1-2 days	3	6	35
	3-4 days	7	13	48
	5-6 days	5	10	58
	daily	22	42	100
	all	52	100	
<b>Exfoliation</b>	never	7	13	13
	1-2 days	3	6	19
	3-4 days	6	12	31
	5-6 days	2	4	35
	daily	33	63	98
	missing	1	2	100
	all	52	100	
<b>Dry Skin</b>	never	0	0	13
	1-2 days	1	2	2
	3-4 days	1	2	4
	5-6 days	3	6	10
	daily	47	90	100
	all	52	100	

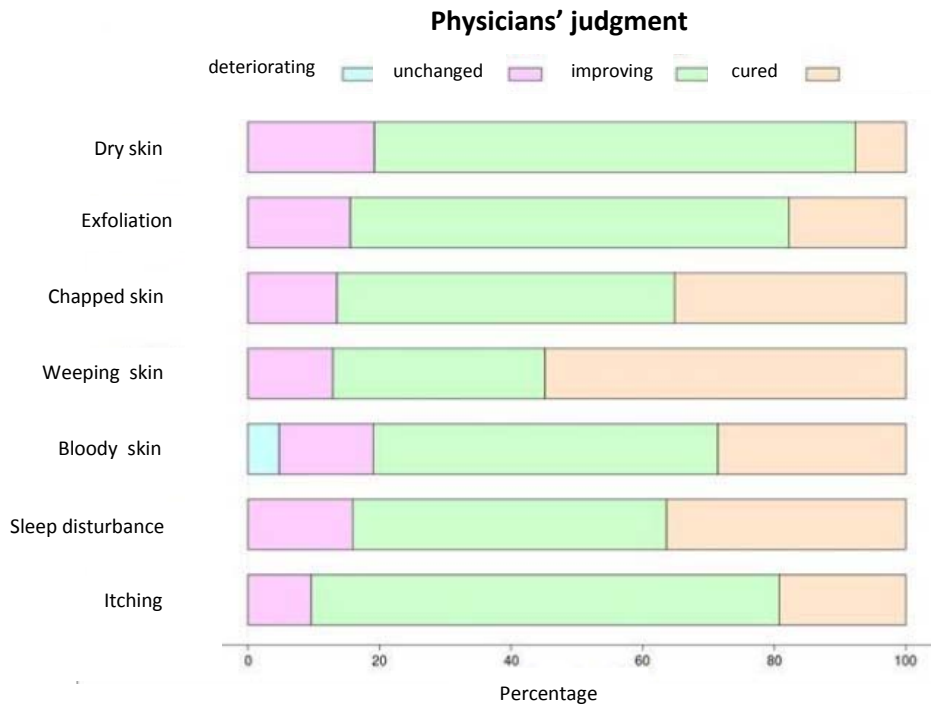
### 3.2 RESULTS AFTER USING DERMASILK

Before using DermaSilk Therapeutic Clothing 48 patients suffered daily from itching. The remaining patients had itching between 3 and 6 days a week. After the application of DermaSilk the itching had improved in 90% of patients, 19% of patients had no more itching (Tab. 2 and Fig. 2)



**Figure 1:** Frequency of symptoms prior to application of DermaSilk. All patients suffer from itching and dry skin.

For the parameters itching, sleep disturbance, bloody skin, weeping skin, chapped skin, exfoliation and dry rough skin a significant reduction was recorded for each of them ( $p < 0.0001$ ).



**Figure 2:** Paediatricians' evaluation of symptoms after the use of DermaSilk.

Side effects: None.

Interrupted treatment: 48 no, 4 yes (reasons: 2 mothers were hospitalized and therefore they could not respect the required continuity of treatment, 1 symptom-free early on so stopped all treatments, and 1 gave little effect as the reason.) Medical opinion on the effectiveness: 24 very good, 17 good, 10 moderate, and 1 poor (indicating that the same doctor would use DermaSilk again for this patient).

Medical opinion on tolerability: 38 very good, 13 good, 0 moderate, and 1 poor (reason: DermaSilk was removed by the affected 10-year-old boy himself. But overall effectiveness evaluated as moderate). Therefore 98% of the doctors assessed the tolerability of Derma Silk as good to very good.

**Table 2:** Physicians' judgement on the application of DermaSilk [6]

VARIABLE	LEVELS	n	%
<b>Itching</b>	Symptom-free	0	0
	from Baseline		
	worsened	0	0
	unchanged	5	10
	improved	37	71
	healed	10	19
<i>p &lt; 0.0001</i>	<i>all</i>	52	100
<b>Sleep disturbance</b>	Symptom-free	8	15
	from Baseline		
	worsened	0	0
	unchanged	7	13
	improved	21	40
	healed	16	31
<i>p &lt; 0.0001</i>	<i>all</i>	52	100
<b>Bloody skin</b>	Symptom-free	10	19
	from Baseline		
	worsened	2	4
	unchanged	6	12
	improved	22	42
	healed	12	23
<i>p &lt; 0.0001</i>	<i>all</i>	52	100
<b>Weeping skin</b>	Symptom-free	21	40
	from Baseline		
	worsened	0	0
	unchanged	4	8
	improved	10	19
	healed	17	33
<i>p &lt; 0.0001</i>	<i>all</i>	52	100
<b>Chaped skin</b>	Symptom-free	15	29
	from Baseline		
	worsened	5	10
	unchanged	5	10
	improved	19	37
	healed	13	25
<i>p &lt; 0.0001</i>	<i>all</i>	52	100
<b>Dry skin</b>	Symptom-free	0	0
	from Baseline		
	worsened	0	0
	unchanged	10	19
	improved	38	73
	healed	4	8
<i>p &lt; 0.0001</i>	<i>all</i>	52	100

**Table 3:** Physicians' judgement on the application of DermaSilk as a therapeutic measure.

VARIABLE	LEVELS	n	%
<b>Effectiveness</b>	very good	24	46
	good	17	33
	moderate	10	19
	bad	1	2
	<i>all</i>	52	100
<b>Tolerability</b>	very good	38	73
	good	13	25
	moderate	0	0
	bad	1	2
	<i>all</i>	52	100
<b>Reapply</b>	yes	48	92
	no	4	8
	<i>all</i>	52	100

#### 4. DISCUSSION

The effect of DermaSilk Therapeutic Clothing on patients suffering from atopic dermatitis is known and documented [1-5]. The effect achieved by wearing DermaSilk is comparable with that of a topical corticosteroid medications class 3 [2]. In this study, a test conducted among outpatients indicated a significant effectiveness with improvement in atopic dermatitis also in daily outpatient paediatric practice, both as regards subjective and objective parameters. The itching caused by this disease is a crucial factor in reducing quality of life for sufferers. In 90 % of the cases wearing DermaSilk clothing led to a significant improvement and even to cessation of itching. In this way the effectiveness of DermaSilk on atopic dermatitis was confirmed also in an outpatient setting.

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