

# Psoriatic skin care – *in vivo* efficacy study of cosmetics based on pale ichthyol and plant extract enhancing Vitamin D Receptor synthesis

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## INTRODUCTION AND OBJECTIVE

Psoriasis is a systemic inflammatory disease that can result in significant physical, psychological and quality of life impairments. The management of psoriasis focuses on intense pharmacotherapy during flare-ups with active psoriatic lesions on the body and scalp, and on optimum skin care which minimizes the symptoms and prevents recurrence of active lesions during the periods of remission. Essentially, psoriatic skin care should restore skin barrier function, regulate epidermal renewal and have anti-inflammatory properties. **Here we present the clinical trial on cosmetic products containing pale ichthyol and plant extract enhancing Vitamin D Receptor (VDR) synthesis, intended for patients suffering from psoriasis.** These substances soothe inflammation, pruritus, and enhance natural resistance mechanisms of the skin, improving its condition.

## MATERIALS AND METHODS

This study included 35 psoriatic patients (age 17-62) with average PASI score 12,99. Patients were using body cream, shower gel and body/scalp spray based on pale ichthyol and plant extract enhancing VDR synthesis for 3 weeks. PASI, DLQI, skin condition in 10-point analogue scale were assessed, as well as patients' self-evaluation.

## RESULTS

In our study we have demonstrated that the proper cosmetics care improve skin condition of psoriatic patients: clinical evaluation in 10-point analogue scale revealed that pruritus decreased by 60%, skin smoothness increased by 53% and visibility of desquamation in scalp decreased by 45%. Patients' self-evaluation showed that skin care with body balm treatment decreased the visibility of psoriatic lesions (82%) and relieved itching and burning (83%). Combination of body balm and washing gel promoted skin regeneration (72%) and minimized the appearance of psoriatic lesions (76%). Patients used scalp spray observed decreasing of dandruff (67%) and noticed improvement in scalp moisturization (76%). Moreover, tested products reduced PASI score and improve patients' life quality.

### PASI vs. DLQI after 3 weeks of the products usage

PASI vs. DLQI	D0	D21	% of change	Additional observations at the end of trials
PASI (Psoriasis area and severity index)	12,99	8,76	-33%	<ul style="list-style-type: none"> <li>3 cases with complete recovery</li> <li>5 cases with reduction of PASI score over 60%</li> </ul>
DLQI (Dermatological Life quality index)	10	7	-30%	<ul style="list-style-type: none"> <li>15 cases of improvement in the score levels</li> <li>11 cases claimed 'no effect' or small effect' on life quality</li> </ul>

**DLQI scale:**  
 0-1 no effect on life  
 2-5 small effect on life  
 6-10 moderate effect on life  
 11-20 very large effect on life  
 21-30 extremely large effect on life

### Clinical evaluation of skin condition in 10-point analogue scale after 3 weeks of the products usage

Clinical evaluation in 10-point analogue scale (n=35)	Change (%)
Skin pruritus	- 60%
Scale visibility	- 43%
Nutrition	+ 54%
Skin elasticity	+ 41%
Smoothness	+ 53%
Visibility of dandruff	- 65%
Skin scaling level on the scalp	-45%

### Patients' self-evaluation

Body balm	
% of subjects	Statements
82%	minimizes the appearance of psoriatic lesions
92%	moisturizes
88%	soothes and relieves irritations
83%	relieves itching and burning
73%	exfoliates scales

Body and scalp spray	
% of subjects	Statements
74%	relieves itching and burning
76%	moisturizes the scalp
74%	minimizes the appearance of psoriatic lesions on the scalp
74%	promotes skin regeneration on the scalp
67%	minimizes the appearance of dandruff

Body and scalp washing gel	
% of subjects	Statements
88%	effectively cleanses the scalp and hair
76%	minimizes the appearance of psoriatic lesions on the body and scalp
72%	promotes skin regeneration on the body and scalp
83%	soothes and relieves irritations
86%	relieves the itching and burning of the body and scalp

## CONCLUSION

We have demonstrated that dermocosmetic products containing enhancer of VDR synthesis and pale ichthyol provide safe and effective skin care for patients suffering from psoriasis. We do believe that proper skin care can support psoriasis medical treatment extending the periods of remission, and preventing flare-ups.