Pale ichthyol, Canola oil, Juniper berry oil and Hemp seed oil in topical treatment of psoriaris.

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Introduction

Psoriasis is a common chronic and recurrent skin disease that can have a considerable impact on patients' quality of life. Management of psoriasis involves intense pharmacotherapy during flare-ups on the body and scalp, and suitable skin care to minimize the symptoms and prevent recurrence of lesions during remission. Although psoriasis is considered difficult to treat, there are preparations that alleviate symptoms and restore skin balance therefore playing an important role in systemic therapy.
The aim of the study was to assess safety and efficacy of a multifunctional cream for psoriatic patients, both with flare-ups and during clinical remission.
The tested cream contained an innovative oil from juniper berry (obtained by steam distillation), which is an active substance with similar anti-inflammatory efficacy to wood tar.

Methods

The tested formula contained 3% canola oil, 2% juniper fruit oil, 1% hemp seed oil, 0.3% pale ichthyol and allantoin as well as 0.25% salicylic acid. The study was performed by dermatologists in a group of 20 adults with psoriasis (aged 28-70), divided into 3 subgroups. Group A- patients with active psoriasis lesions currently not receiving treatment (n=9). Group B- patients undergoing systemic (n=2, acitretin, retinoic acid analogue) or topical pharmacotherapy (n=4, clobetasol propionate, betamethasone dipropionate, gentamicin sulfate). Patients in groups A and B used the product for 3 weeks at least 2 times per day. Group C- patients in remission (n=5). Group C patients were subjected to controlled bilateral half-body comparison to verify the effect of extending the remission phase. They were instructed to use the product until symptoms recurred or for a maximum of 8 weeks. Individual parameters were evaluated by comparing the results of the subjective assessment (VAS) and dermatological examination (L-PASI for group A and PASI for group B as well as redness, scaling and thickness for all patients according analog scale from 0 to 4, where 0 means none of lesions, and 4 means severe skin lesions).

Results

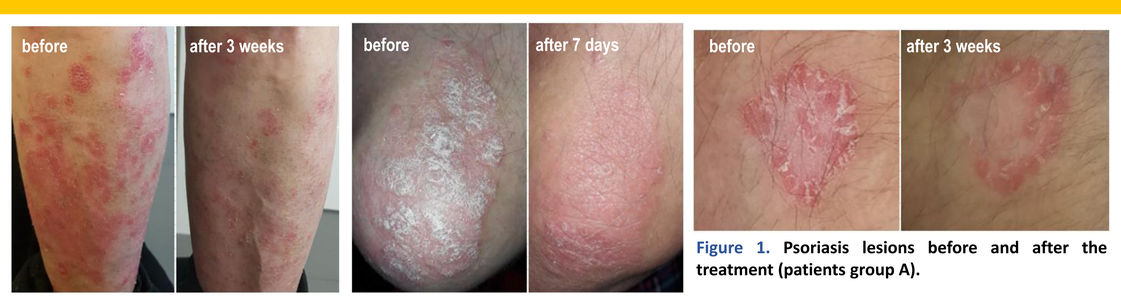

Figure 1. Psoriasis lesions before and after the treatment (patients group A).

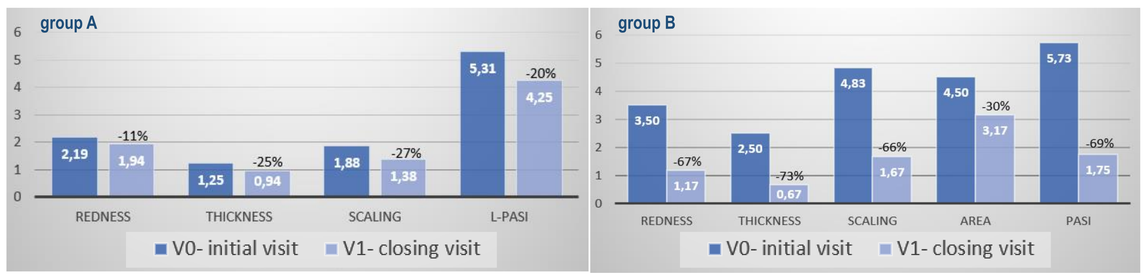

Figure 2. Results of the clinical trial in group A and B. Dermatologist's assessment of skin condition at baseline and at the end of the study. In patients not using pharmacotherapy (group A), the greatest improvement was noted in scaling and thickness of the lesions. L-PASI (which includes redness, thickness and scaling) was reduced by 20%. In patients undergoing treatment (group B), all assessed features were significantly reduced. The biggest difference was noted in the lesion thickness assessment (-73%) and in the PASI assessment (reduction by 69%).

Subjects' self-assessment	% subjects		
	group A	group B	group C
I have the impression that the product supports skin regeneration and healing.	**56%**	**50%**	20%
The product has antipruritic effects (the skin is less itchy).	**56%**	**83%**	40%
The cream soothes redness.	33%	**50%**	40%
Application of the product brings relief (antipruritic, slightly anesthetic, cooling).	**56%**	**67%**	**60%**
I noticed a reduced visibility of the scales.	**56%**	**67%**	40%
If yes, after how many days did you observe the scale reduction?	on average after **6** days	on average after 7 days	on average after 7 days
After how many applications did you experience a reduction in itching, redness, and burning?	itching on average after 6 applications, redness on average after 7 applications	on average after 6 applications	on average after **3** applications

Figure 3. Self-assessment at the end of the study. Skin regeneration was noticed by patients currently not using pharmacotherapy and patients undergoing treatment (groups A and B). The antipruritic effect was particularly well assessed in group B. Milder redness was confirmed only among patients receiving pharmacotherapy. The comfort-restoring properties on psoriatic skin were confirmed in all of the studied groups. The reduction of scaling was noticed after an average of 6 days of using the cream (group A). In addition, a reduction in itching, redness and burning was noted after an average of 3 applications (group C).

	Group A (without treatment)		Group B (during pharmacotherapy)	
	n=9	improvement rate	n=6	improvement rate
VAS (Visual Analogue Scale) – intensity of itching	-17%	**-41%** in 53% volunteers	-72%	**-97%** in 83% volunteers

Figure 4. Patients' assessment of skin itching at baseline and after 21 days of use. Obtained results confirm the anti-itching properties of the tested cream.

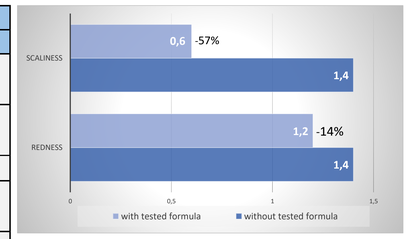

Figure 5. Assessement of scaliness and redness in bilateral half-body comparison (group C). Significant differences between both sides of the body were observed, proving the efficacy of the testes formula in reducing skin redness and scaling.

	patient ID	gender	age	number of days in remission (V1-V0)
1	006	m	46	56
2	007	m	28	36
3	008	f	59	22
4	009	m	43	14
5	010	m	25	33

Figure 6. Number of days in remission for patients in group C. Patients were instructed to use the product daily until symptoms recurred or for a maximum of 8 weeks.

Conclusion

These results demonstrate that systematic application of the multifunctional cream reduces psoriasis symptoms and could extends the remission phase in the tested groups. Cream with pale ichthyol, canola, juniper and hemp oils was efficacious and well tolerated in adult patients with mild to moderate psoriasis lesions. It can be used to minimize the psoriatic symptoms and prevent recurrence of lesions.

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