CLINICAL USEFULNESS OF A PRODUCT DEVELOPED FOR SENSITIVE AND ALLERGY PRONE SKIN

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INTRODUCTION -

Sensitive skin as described by patients is an extremely polymorphous symptomatology with subjective complaints of discomfort (burning, stinging, itching...) with or without visible signs (erythema, desquamation...) up to allergy (1-4). The present study evaluates the benefits of a specially developed product for patients with sensitive or pathological skin.

MATERIAL AND METHODS

First we have taken the battery of safety testing including Repeated Insult Patch Tests. Secondly, use tests on patients with sensitive skin or a medical history of sensitivity to at least 2 allergens of the European standard series (previously treated with an occlusive patch for 48 hours), were performed. Finally, the product was evaluated on 41 women (18-62 years old) with sensitive skin [selected after filling out of a specific questionnaire and being positive to a lactic acid stinging test $TO \ge 4$ [3] and on 102 women with atopy prone (n=49) or erythrocouperosis/rosacea prone (n=53) skin. They all applied the product twice daily for 4 weeks. In the first test, evaluation at baseline (T0) and after 4 weeks [T4] included stinging test, Sensiscore questionnaire, clinical grading with a 9-point scale and self-evaluation of reactivity using a 5-point scale. In the second one, clinical grading of functional signs and physical signs using a 4-point scale and self evaluation of reactivity to exagenous factors via a 10-cm visual analog scale were performed at the same times (T0 and T4).

RESULTS

The tested product has been developed in accordance with a rigorous formulation charter i.e. hypoallergenic raw materials with maximum tolerance, minimum of ingredients, no preservative, no fragrance and with La Roche-Posay thermal spring water. No reaction was noticed after use tests carried out on 178 healthy women with sensitive and intolerant skin. Furthermore no reaction was observed on 41 women with a medical history of sensitivity to at least 2 allergens of the European standard series (previously treated with an occlusive patch for 48 hours). In addition, the product has been evaluated on 41 women with sensitive skin and submitted to a stinging test (skin irritation induced with lactic acid).

A significant reduction of the skin reactivity to the stinging test associated with a significant reduction of the subjective and objective clinical signs of tingling, burning, tightness and dryness was noticed after a 4 week-treatment with the tested product. At the same time, a significant reduction of the intensity and frequency of some subjective and objective scores evaluated via the Sensiscore questionnaire (discomfort linked to temperature, pollution, irritation, redness, tingling, pruritus and tightness) indicated a reduction of discomfort linked to the skin sensitivity afforded by the tested product treatment.

Lastly, on 102 women with atopy prone (n=49) or with erythrocouperosis/ rosacea prone (n=53) skin, a significant reduction of the number of patients affected by functional or physical signs of skin reactivity was noticed in both populations at the end of the 4-week treatment. We also noticed a reduction of the number of patients sensitive to exogenous factors i.e. cold weather, spicy food ingestion, cosmetic product use...

N=41	Pre-treatment T0 (mean ± SD)	Post-treatment T4 (mean ± SD)	
Stinging score	5.93 ± 1.35	4.05 ± 1.45	p<0.05
Tingling (1-9)	0.88 ± 1.81	0.05 ± 0.31	p<0.05
Burning sensations (1-9)	1.39 ± 2.3	0.54 ± 1.52	p<0.05
Tightness (1-9)	1.93 ± 2.49	1.15 ± 1.45	p<0.05
Dryness (1-9)	2.15 ± 2.45	0.46 ± 1.21	p<0.05
N=41	Pre-treatment T0 (mean ± SD)	Post-treatment T4 (mean ± SD)	
Global Sensiscore	44.72 ± 14.15	21.85 ± 16.98	p<0.05



CONCLUSION

In conclusion, the tested product is convenient for subjects with sensitive and allergy prone skin.

REFERENCE

Farage MA, Katsarou A, Maibach HI. Sensory, clinical and physiological factors in sensitive skin: a review. Contact Dermatitis 2006, 55(1): 1-14.
Jourdain R, de Lacharrière D, Bastien P, Maibach HI. Ethnic variations in self-perceived sensitive skin: epidemiological survey. Contact Dermatitis 2002, 46(3): 162-169.
Je Lacharrière D, Jourdain R, Bastien P, Garrigue JL. Sensitive skin is not a subclinical expression of contact allergy. Contact Dermatitis 2015, 44(2): 131-132.
Wills CM, Shaw S, de Lacharrière D, Baverel M, Reiche L, Jourdain R, Bastien P, Wilkinson JD. Sensitive skin: an epidemiological study. Br J Dermatol 2001, 145(2): 258-263.