

Adjunctive cosmetic routine in medical treatment for moderate to severe acne and its benefits in terms of skin comfort and treatment compliance: a multicentric study

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INTRODUCTION & OBJECTIVES

Acne vulgaris is a common inflammatory skin disease characterized by **comedones, papules, pustules, nodules**. The lesions are mainly located on the face and can affect the social life and the self-esteem of individuals.

Topical or oral retinoids are one of the standard therapeutics but are often accompanied by cutaneous discomforts.

So, it appears crucial to provide the patients undergoing such treatment with genuine **cosmetic routines to maintain the skin in good state and help support the compliance**, ensuring **favourable clinical results and improved quality of life**.

The primary endpoint of this study was to evaluate the ability of a cosmetic routine to maintain the skin in good state in the context of a medical treatment for acne, under dermatological control.

Besides, its ability to improve the skin discomforts, soothe inflammatory signs and prevent skin dehydration and then support the compliance to the treatment were also investigated.

MATERIALS & METHODS

This study was a **multicentric observational** study conducted in **South Korea, Bulgaria and France**. **117 subjects** aged 15 to 28 years old, presenting with **moderate to very severe acne** (GEA 3-5) and who have been prescribed with oral or topical retinoids (class II/III) were included and followed up for 2 months.

The daily routine, including a soothing, rinsed-off facial cleanser and an ultra-moisturizing soothing face cream formulated with enoxolone and ceramides, was used **2x/day** by the subjects.

At each visit (T0, T1month and T2months), the investigator rated the following **clinical signs**: erythema, desquamation, roughness, skin dryness, residual marks/pigmentation (from 0=none to 4=very severe). Investigator also evaluated **the local tolerance** and the routine use **compliance**.

Subjects were asked to grade their possible feeling of discomfort/tightness, feeling of skin dryness, pruritus, burning sensations, stinging (from 0=none to 4=very severe), and to answer a **subjective efficacy questionnaire**. They also answer a **quality-of-life questionnaire (CADI)**.

RESULTS

The number of daily applications of the products are respectively **1.8** on average for the cleanser, and **1.9** on average for the face cream

The results show **favourable evolutions of each clinical signs**, reaching maximal and significant decrease after 2 months of use of the routine in adjunction to the acne treatment (**erythema -44.0%**, **desquamation -44.1%**, **roughness -66.5%**, **skin dryness -40.8%**, **residual marks/pigmentation -41.9%**, p<0.001, Wilcoxon signed-rank test)

The results also show a **favourable evolution of the functional signs**, reaching maximal and significant decrease after 2 months (**feeling of discomfort/tightness -50.6%**, **feeling of skin dryness -41.8%**, **pruritus -70.5%**, **burning sensations -75.9%** and **stinging -77.0%**, p<0.001, Wilcoxon signed-rank test).

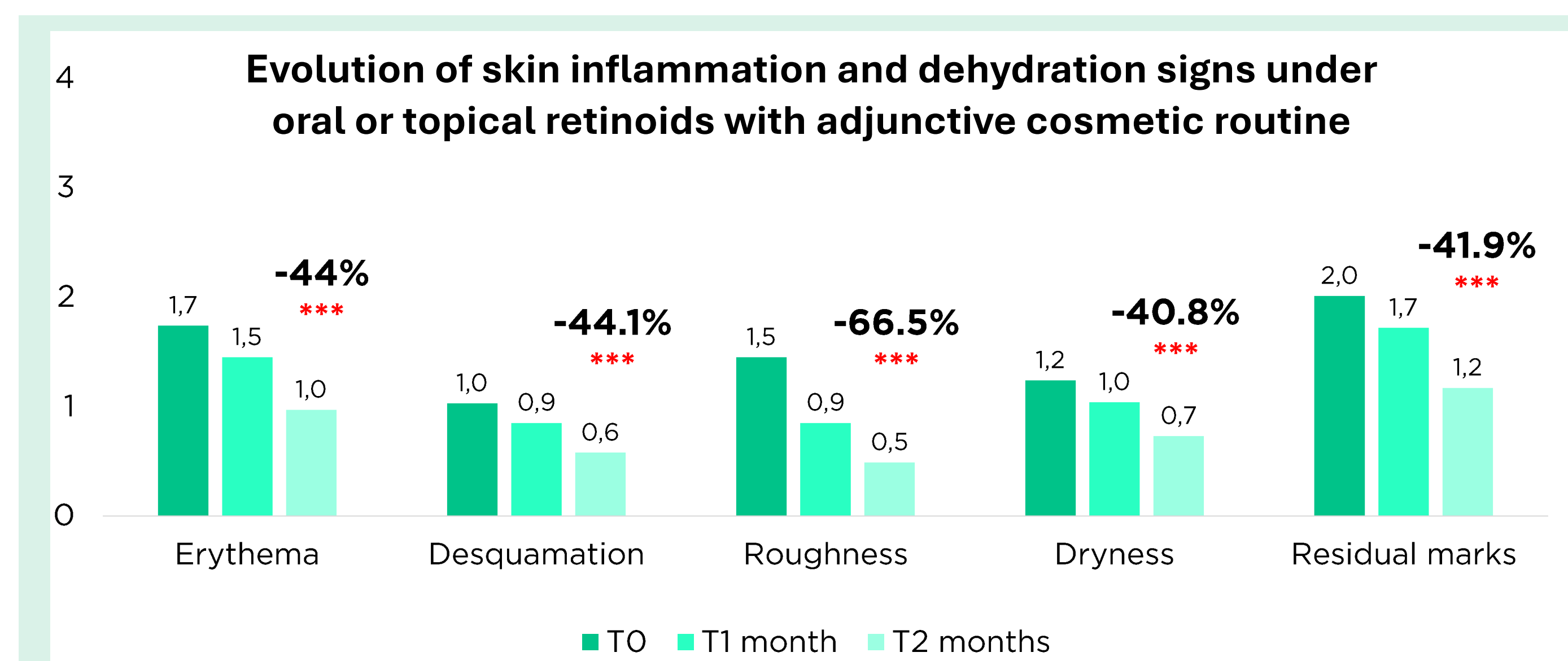


Figure 1: Evolution of skin inflammation and dehydration signs - visual clinical grading by the investigator (from 0 to 4)
 (ns: non-significant, **p<0.01; ***p<0.001, Wilcoxon signed-rank test)

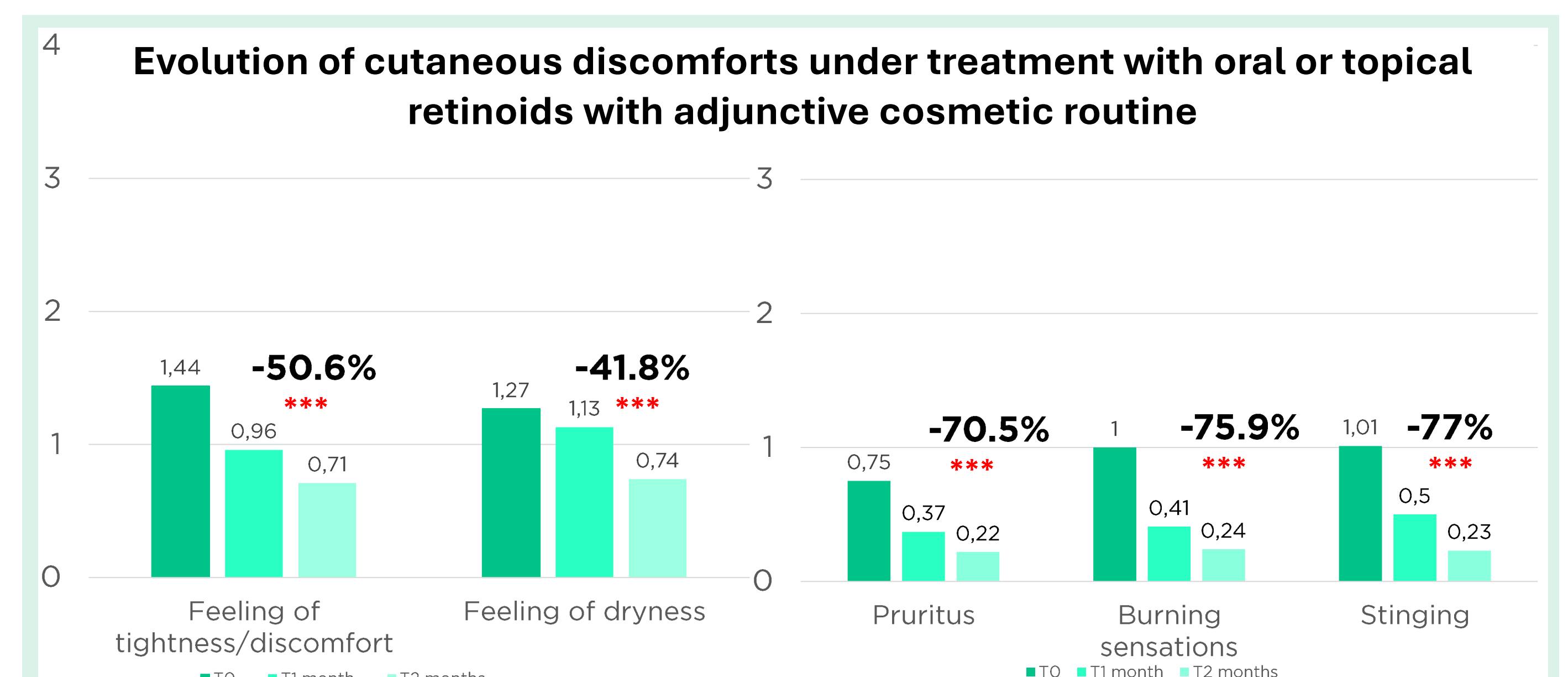


Figure 2: Evolution of functional signs - clinical evaluation by the investigator (from 0 to 4) (ns: non-significant, ***p<0.001, Wilcoxon signed-rank test)

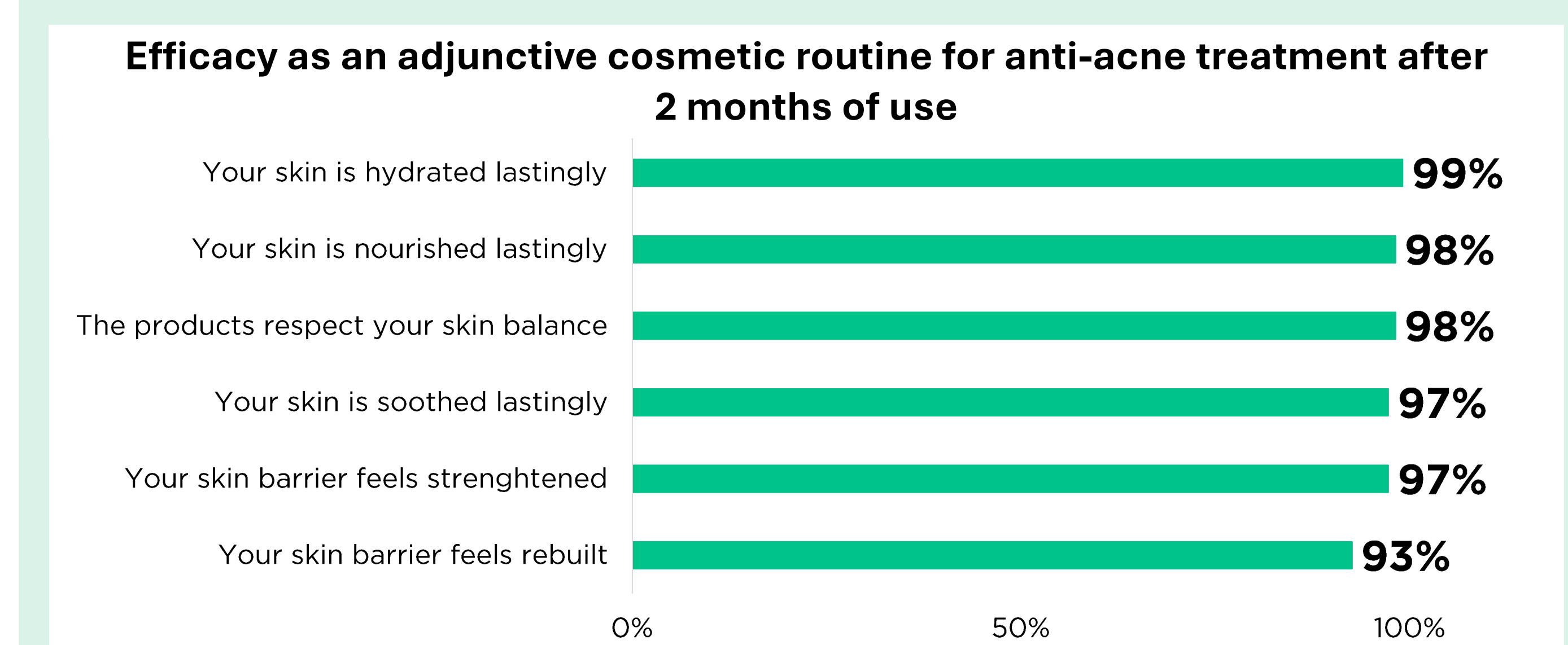


Figure 3: Efficacy of the products as an adjunctive cosmetic routine for anti-acne treatment (oral or topical retinoids)

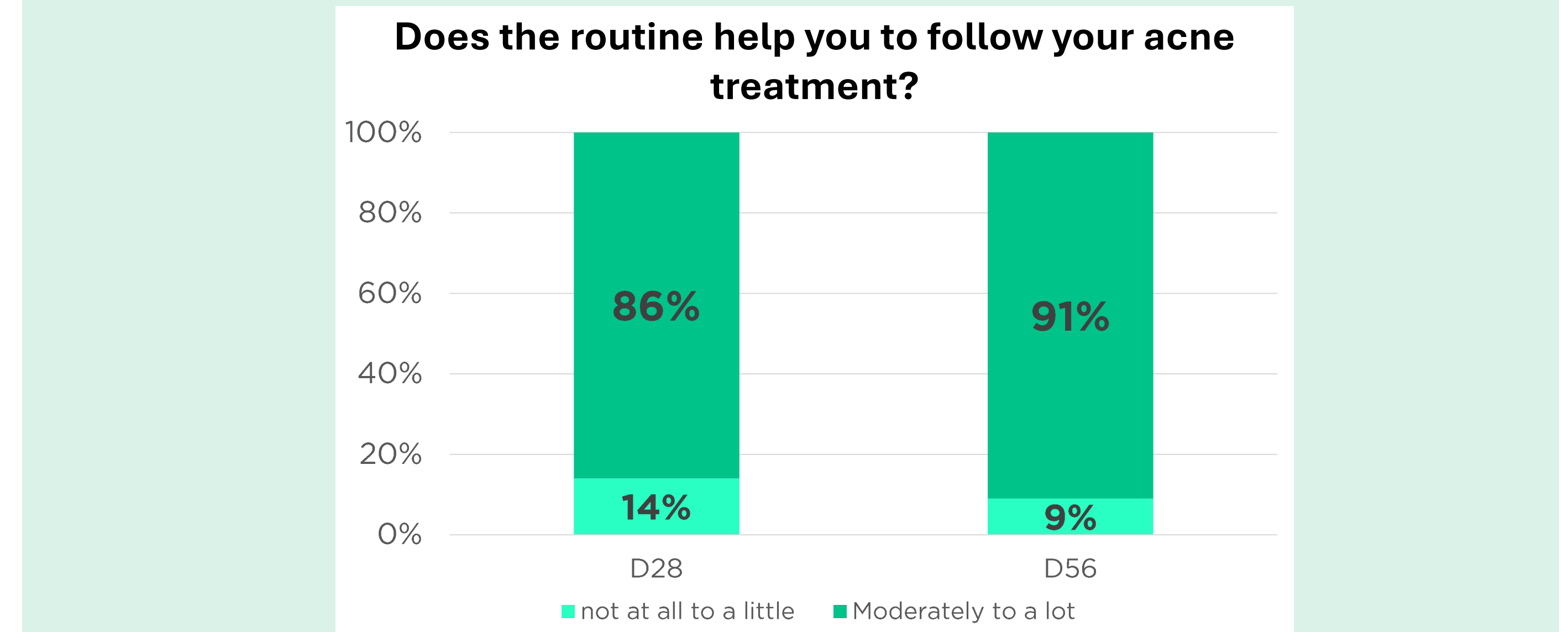


Figure 4: overall evaluation of the ability of the routine to support the compliance to anti-acne treatment («moderately to a lot»)

After 2 months, **91.7%** of the subjects felt that the routine did **help limit the side effects of their acne treatment**, and **90.8%** felt that the skincare did **help them to follow their acne treatment**. Overall, their quality of life improved throughout the study period, with a **CADI total score decrease of -30.3% and -57.4%**, after 1 and 2 months (p<0.001, Wilcoxon signed-rank test).

More than **98%** of the subjects agree to totally agree that their **skin is immediately and lastingly soothed and hydrated**.

The cosmetics properties are rated 8.8 out of 10 with a minimum score of 8.5 for the smell.

No adverse events linked to the study products were reported.

CONCLUSION

Providing the patients with an adapted adjunctive dermocosmetic routine along with their drying acne medical treatment **improved the uncomfortable clinical and functional signs and helped them to better live and comply** with their medical treatment.