INTEREST OF A SPECIFIC DERMO-COSMETIC PRODUCT IN THE MANAGEMENT OF ACNEIFORM RASH INDUCED BY ANTI-TUMORAL TREATMENTS

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INTRODUCTION

Acneiform rash is the most frequent cutaneous toxicities induced by anti-tumoral treatments (43 to 85% depending on treatment). It appears 1 to 3 weeks after treatment initiation and is characterized by pimples on hair follicles, with pruritic and painful lesions accompanied with redness, dryness, and discomfort mainly in face, neck, neckline, and upper back. Acneiform rash is a very good predictive marker of response to anti-tumoral treatment as the lesions' intensity correlates to the treatment efficacy. It impacts, however, patients' quality of life, leading to a bad compliance in one third of them. The aim of this study is to assess the interest and the safety of a specific dermo-cosmetic product in the management of acneiform skin lesions.

MATERIALS & METHODS

To evaluate **the soothing/anti-redness effect**, skin colour was measured on 20 healthy subjects (average age 30) using a spectrophotometer before and after application of patches containing the product and 1% SLS. Patches were applied for 18 hours and measurement was done 6 hours after removing them.

A **multicentric double-blind randomized clinical study** was performed under oncological control where 36 patients (average age 60.6), starting an anti-tumoral treatment known to induce acneiform skin lesions, applied the product twice daily (morning/evening) for 56 days (D56), on face, neck, neckline, and upper back. Several evaluations were performed by the oncologists at each visit (D0, D14, D28, D42, D56) (see **Figure 1**) and by the subjects (see **Figure 2a**).

RESULTS

Redness was significantly reduced by -46% ($p<0.0001$; ANOVA model) with the product via the a* parameter measurement.

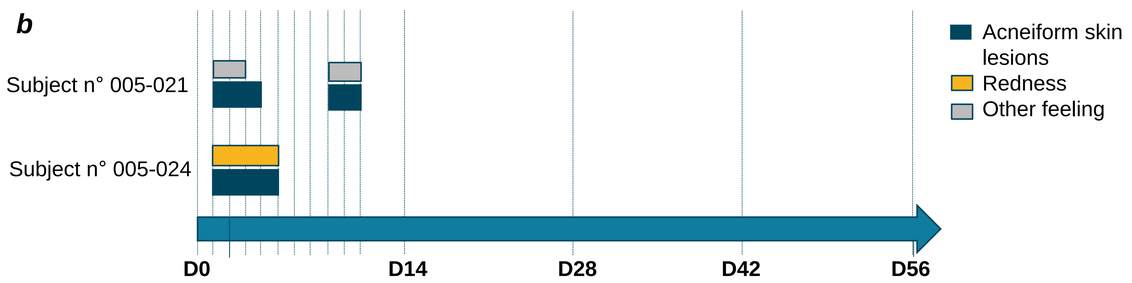
Figure 1: *Clinical evaluation by the oncologists*

Evaluations at each visit	Results
Time to onset of acneiform skin lesions (CTCAE v5.0)	**No subjects presented acneiform lesions.**
Incidence of acneiform skin lesions (CTCAE v5.0)	No subjects presented grade 1, 2, 3 or 4 acneiform lesions.
Evolution of inflammatoy lesions number (papules and pustules)	No lesions were observed.
Evolution acneiform skin lesions severity (CTCAE v5.0)	All subjects were stable, no acneiform skin lesions.
Delineation of affected area(s)	No subjects presented acneiform skin lesions on the usual affected areas (face, neck, neckline, upper-back).
Evolution of the percentage of Body Surface Area presenting acneiform skin lesions	No acneiform skin lesions were observed.
Evolution of dermatological symptoms (4-point scale, or 100-point VAS for pain and itching)	No subject presented redness, dryness, pain nor itching.
Safety of the product (4-point scale)	Very good tolerated for 94.4% of the subjects.

a ***Figure 2:*** *Subjective evaluations by the subjects (**a**) and details on 2 of them developing acneiform skin lesions (**b**)*

Evaluations	Results
Lesions and symptoms (daily log answers)	2 subjects reported acneiform skin lesions (**Figure 2b**). **After D11, no subject reported the presence of acneiform skin lesions or any other physical sign.**
Quality of life (DLQI every 7 days)	The impact on quality of life among all subjects remained stable (<1/30) during the study period.
Product's efficacy (questionnaire at D56)	All subjects considered that their skin was supple, soft and hydrated; 96.9% found their skin soothed, 93.9% comfortable and 87.9% smoothed at D56.
Safety of the product (daily log completion)	Very good tolerated for all subjects.

b



CONCLUSION

The results demonstrated that since the beginning and along the anti-tumoral treatment, the application of this specific soothing dermo-cosmetic product controlled the appearance of acneiform skin lesions and have contributed to subject's well-being. An optimal care to patients undergoing such treatments can prevent cutaneous complications in order to optimize patient's anti-tumoral treatment compliance.