

# INCLUSIVE INTEREST OF A SPECIFIC DERMO-COSMETIC CREAM IN THE MANAGEMENT OF SENSITIVE SKIN SYNDROME IN ASIAN AND CAUCASIAN SUBJECTS

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## INTRODUCTION

Several epidemiological studies evaluated the impact of ethnicity on the prevalence of Sensitive Skin Syndrome (SSS), including phototype, climatic, environmental and cultural factors, but there is a lack of inclusive studies evaluating the interest of cosmetic products in different populations. Therefore, the investigation of a specific dermo-cosmetic cream efficacy in Polish and Thai subjects suffering from SSS allowed to explore the potential differences in these two populations.



## MATERIALS & METHODS

Two monocentric clinical studies were performed on subjects (aged 43 years old in average) suffering from SSS associated with a Burden of Sensitive Skin (BoSS) score equal or higher to 20 (out of 56) involving 34 women and 6 men with phototypes IV (55%) or V (30%) in Thailand, and 40 women and 10 men with phototypes II (54%) or III (46%) in Poland. For methodological reason, the Polish subjects were selected with a positive stinging test. The specific dermocosmetic cream was applied once to twice daily on the face and neck for at least 28 days. Clinical signs (redness, dryness, roughness, scaling) were evaluated using a 11-point scale both by the dermatologists and by the subjects. The functional signs (itching, pain, tightness, tingling, heat sensations) were self-evaluated by the subjects with the same scale size. In addition, the impact on the quality of life (QoL) was assessed by the BoSS questionnaire. Adverse events were reported by the subjects, and the global cutaneous acceptability was evaluated by the dermatologists at day 28 (D28) using a 4 point-scale.

## RESULTS

In both studies the cream application significantly **reduced all clinical signs** ( $p < 0.05$  to  $p < 0.001$ ) assessed by the dermatologists and the subjects, **improved the functional signs** ( $p < 0.005$  to  $p < 0.001$ ), and the **subjects' QoL** ( $p < 0.005$  for Thailand,  $p < 0.001$  for Poland) at D28, vs baseline.

### Redness

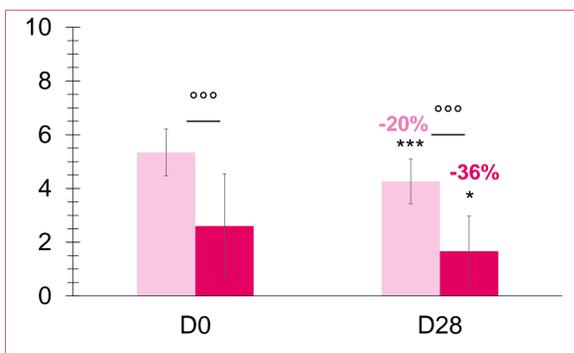


Figure 1: Redness evaluation by dermatologists in Poland and Thailand: \*significance vs. baseline, °significance between both panels. \* $p < 0.05$ ; \*\*\*, °°° $p < 0.001$ ; Wilcoxon test

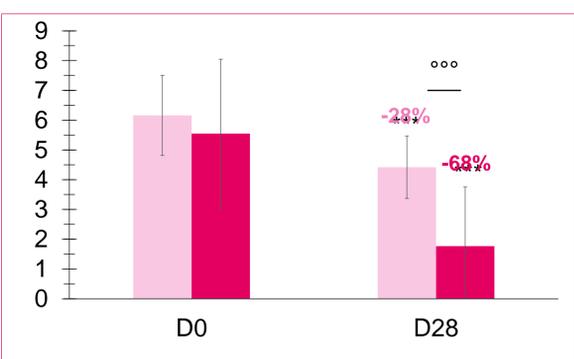


Figure 2: Redness evaluation by subjects in Poland and Thailand: \*significance vs. baseline, °significance between both panels. \*\*\*, °°° $p < 0.001$ ; Wilcoxon test

### Unpleasant sensations

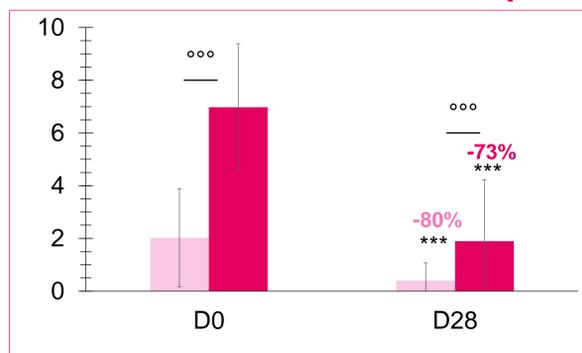


Figure 3: Tingling evaluation by subjects in Poland and Thailand: \*significance vs. baseline, °significance between both panels. \*\*\*, °°° $p < 0.001$ ; Wilcoxon test

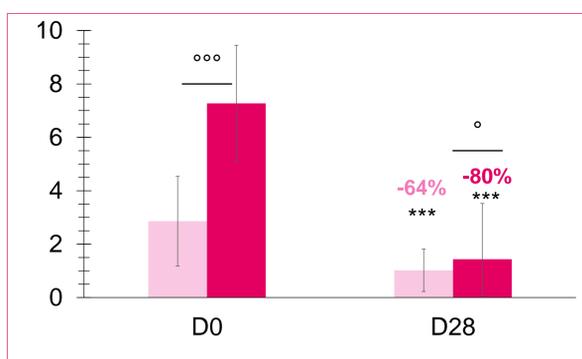


Figure 4: Itching evaluation by subjects in Poland and Thailand: \*significance vs. baseline, °significance between both panels. \* $p < 0.05$ ; \*\*\*, °°° $p < 0.001$ ; Wilcoxon test

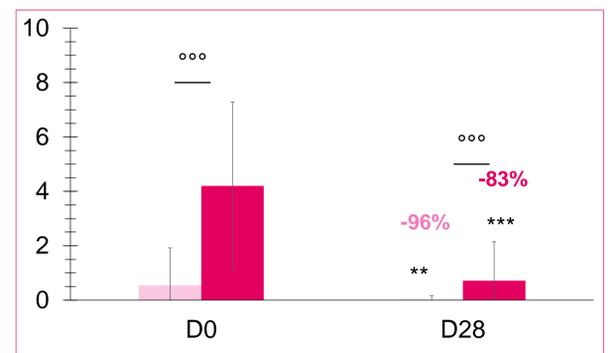


Figure 5: Pain evaluation by subjects in Poland and Thailand: \*significance vs. baseline, °significance between both panels. \*\*  $p < 0.01$ ; \*\*\*, °°° $p < 0.001$ ; Wilcoxon test

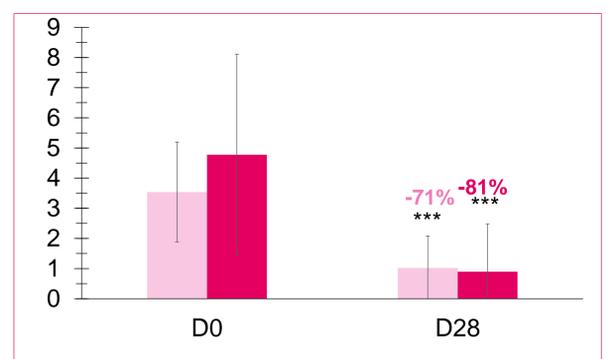


Figure 6: Heat sensations evaluation by subjects in Poland and Thailand: \*significance vs. baseline. \*\*\* $p < 0.001$ ; Wilcoxon test

According to the dermatologists, at baseline and D28, **redness** (Fig.1) and **dryness** were significantly **higher**, and **roughness lower** in Polish vs Thai subjects. On the other hand, **dryness, roughness and scaling** were significantly **higher** in Thai subjects at baseline, and **redness** (Fig.2) and **dryness higher** in Polish subjects at D28, when reported by the subjects. Regarding the functional assessments, **tingling** (Fig.3), **itching** (Fig.4) and **pain** (Fig.5) were significantly **higher** in Thai vs Polish subjects at baseline. At D28, **tightness** was significantly **lower** while, **tingling** (Fig.3) and **pain** (Fig.5) were **higher** in Thai vs Polish subjects. Higher heat sensations were also reported by the Thai panel at inclusion but not in a significant manner (Fig.6).

In addition, the **global BoSS scores** at baseline and D28 were **higher** in Thai vs Polish subjects, especially for questions concerning sensations (choice of clothes and washing of powder, pollution). The questions concerning the **appearance** however were significantly **higher** in Polish subjects (ex: redness). Finally, **100%** and **87.5%** of the subjects presented a **good to very good tolerance** to the cream according to the dermatologists in Poland and Thailand, respectively.

## CONCLUSION

Interestingly, Thai subjects were more affected by sensations of sensitive skin while Polish subjects were more affected by visible effects, even if the latest presented a positive stinging test. Despite the difference in sensibility, phototype and culture, and the potential variation in the SSS perception, these studies demonstrated that this specific dermo-cosmetic cream was well-tolerated and presented an inclusive efficacy in SSS by improving the QoL in two panels from different populations.