

# BENEFITS OF A GEL CREAM IN ATOPIC DERMATITIS THROUGH LIPIDS REPLENISHING AND ITCHING REDUCTION

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## INTRODUCTION & OBJECTIVES

Atopic dermatitis (AD) is a complex, chronic relapsing skin condition. It frequently manifests in erythema and xerosis, goes along with pruritus, desquamation, and sleep loss contributing to reduced quality of life (QoL). The present abstract reports results from 3 different clinical studies that assessed the lipid replenishing, hydrating, anti-itching and clinical benefit of a novel gel cream containing an enoxolone derivative that soothes the skin, reduces inflammation and itching, as well as vitamin B3 that helps to restore the natural skin barrier, and which improves its tonicity and radiance in subjects with AD.

## MATERIALS & METHODS

Two open-labelled, intra-individual clinical studies in healthy volunteers and one prospective observational study in AD subjects were conducted. The first study assessed the lipid replenishing and hydrating effect of the gel cream using Raman confocal micro-spectroscopy and corneometry in 12 subjects with dry or very dry skin and who applied on one of the forearms the gel cream for 28 days. The 2<sup>nd</sup> study assessed its anti-itching benefit in 22 adult subjects with dry or very dry skin and an itching score  $\geq 4$  (from 0=none to 10=very severe) on designated areas of the face and body after 21 days. The third study assessed the clinical benefit, local tolerance, quality of life and user perception of the gel cream after 28 days of use during summer season in 161 AD subjects aged above 3 months presenting a xerosis score  $\geq 4$  (from 0=none to 10=very severe).

## RESULTS

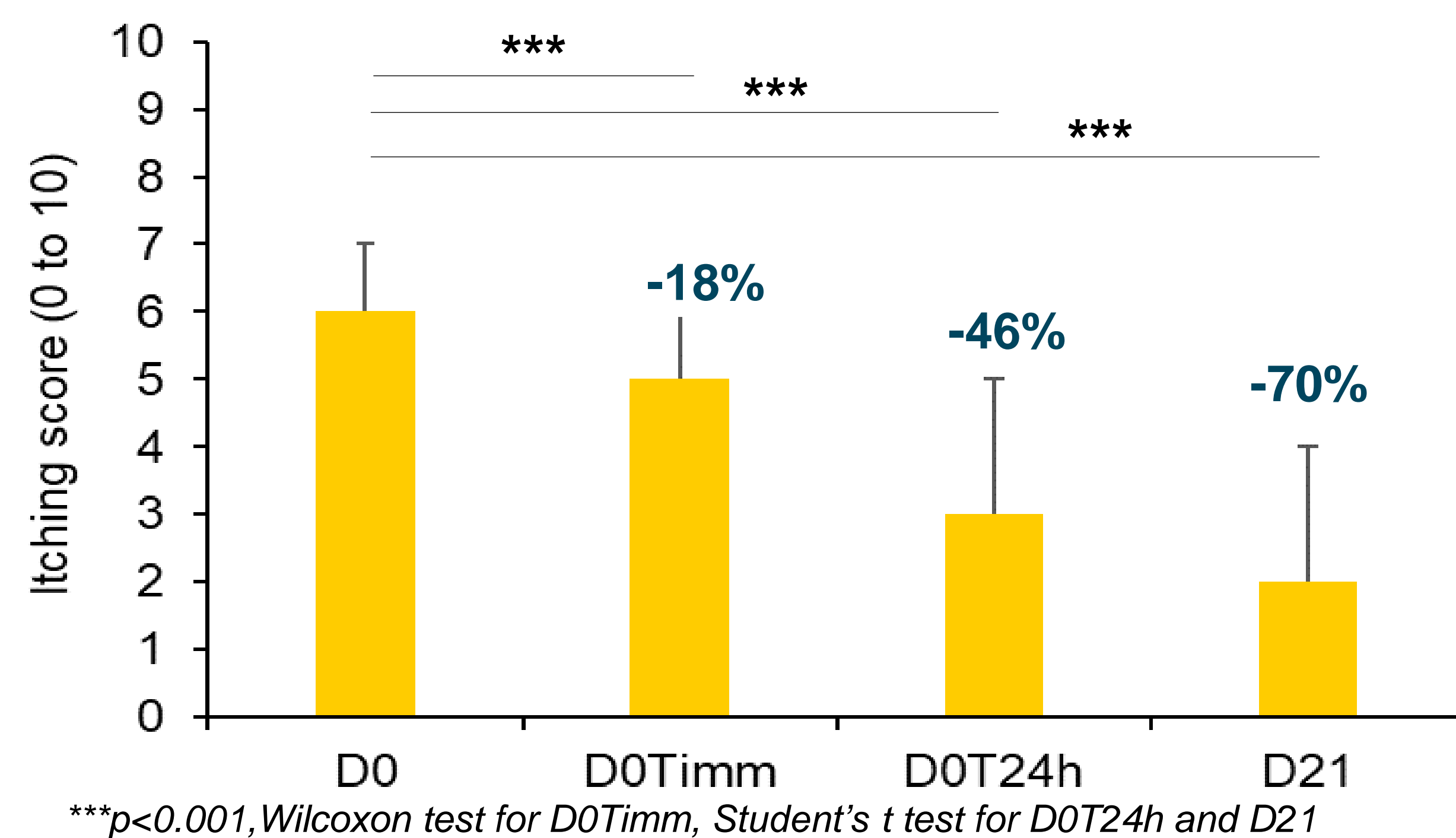
After 28 days, thickness and hydration of the *stratum corneum*, lipid-protein ratio and corneometry were increased compared to the control forearm (Fig. 1), while the itching score decreased immediately after the 1<sup>st</sup> application and until the 21 days of the study (Fig. 2).

Figure 1: Lipid replenish and corneometry analysis after 28 days (study #1)

	SC thickness	SC hydration	Lipid-protein ratio	Corneometry
$\Delta$ Treat/Untreat D28/D0	+21%	+17%	+5%	+15%
Statistics	p<0.001*	p<0.05*	p<0.01**	p<0.01*

\*Student's t test; \*\*ANOVA

Figure 2: Itching score during 21 days (study #2)



In total, 81% of the children, 72% of the adults and 78% of the global study population had their skin dryness significantly improved with the gel cream after 28 days. Clinical and functional signs had significantly improved in all populations (Fig. 3a-b); so did QoL (Fig. 4 a-c). The opinion about the gel cream significantly increases by 84.3% (p<0.001), and its efficacy and cosmetic properties were highly appreciated by the subjects, indicating that this texture is very pleasant and allowed regular applications for a better compliance. The product was also very well tolerated.

Figure 3: Evolution of clinical (a) and functional (b) signs between D0 and D28 for the whole AD population (study #3)

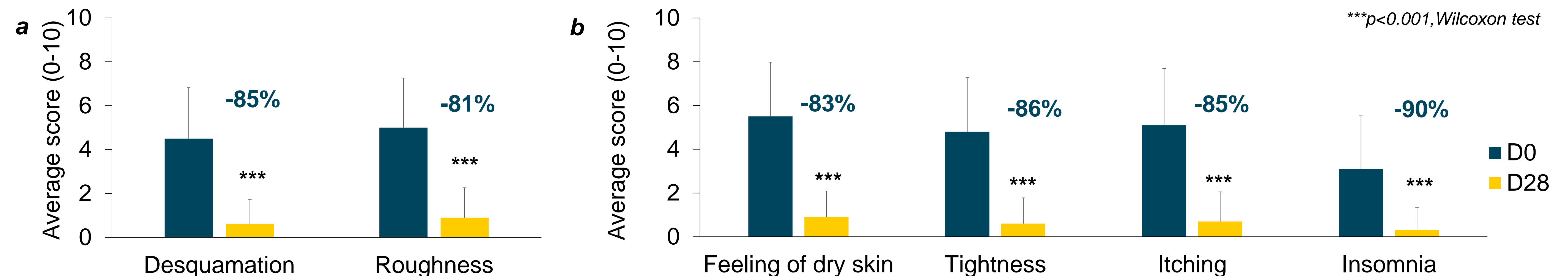
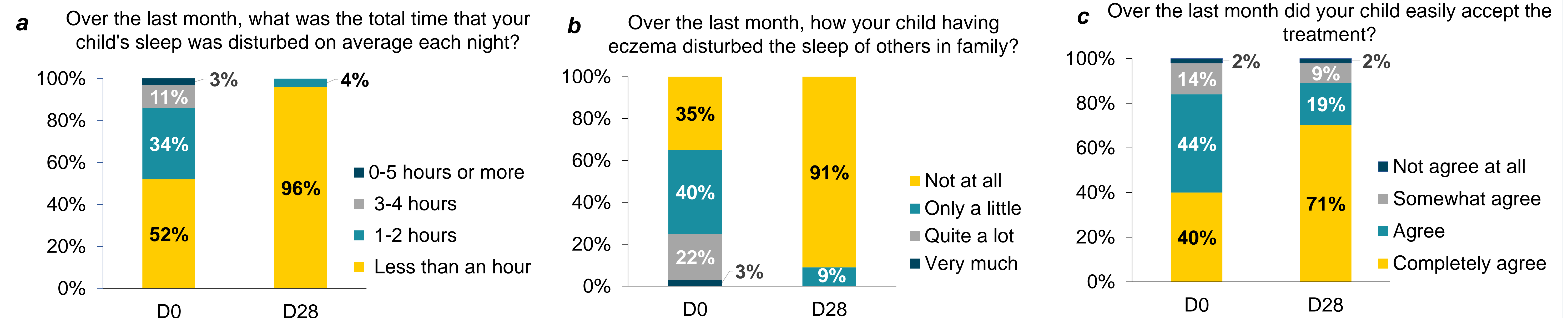


Figure 4: Evolution in percentage in child's parents population (study #3)



## CONCLUSION

The gel cream significantly replenishing the lipids and hydrates the skin, and reduces itching and dryness in subjects with AD, improving quality of life of AD adults, but also AD children and the related family. Subjects highly appreciated the efficacy and cosmetic properties of the product which was very well tolerated.