A DERMOCOSMETIC REGIMEN IS BENEFICIAL IN THE MANAGEMENT OF SKIN SENSITIVITY CAUSED BY A RETINOID-BASED ACNE FIXED COMBINATION

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INTRODUCTION

Acne vulgaris is a chronic inflammatory skin disease with a high prevalence during adolescence, and a growing incidence in adults.[1-4] Its pathophysiology is multifactorial, with increased sebaceous glands and sebum production, hyperkeratinisation of the pilosebaceous infundibulum, skin microbiome disbalance and innate immunity activation.[5]
The herewith investigated dermocosmetic (DC) regimen consists of a cleanser and a cream formulation that has been developed to help to limit topical retinoid-induced skin discomfort in subjects with acne. The DC cream contains Bixa Orellana seed extract, a plant extract that reduces sebum production, hyperkeratinisation, and that reduces lipase activity from C. acnes. Moreover, the cream contains niacinamide, panthenol and the pre- and post-biotic *Aqua Posae Filiformis (APF)*. The DC cleanser contains Bixa Orellana seed extract, niacinamide, mannose and APF.
The aim of this study was to assess the benefit of a DC regimen compared to a standardised skin care regimen including a cream and cleanser (RC) by reducing skin discomfort signs and symptoms induced by a retinoid/benzoyl peroxide fixed combination in acne subjects.

MATERIAL & METHODS

This double-blind, comparative clinical study included subjects of any skin phototype and of at least 16 years of age, with mild to moderate facial acne according to the GEA grading system (GEA grade II to III) and with at least 15 inflammatory lesions.[6]
Clinical evaluations took place at Day 0, 7, 14, 28, and Day 84, including erythema, desquamation, burning, itching and stinging, all assessed on a 4-point scale (none to important), skin discomfort being a composite score of local treatment-related signs and symptoms and acne severity. Moreover, subjects assessed the cosmetic acceptability of both the DC and the RC regimen. Subjects applied the DC or RC daily together with the fixed combination for 84 days.

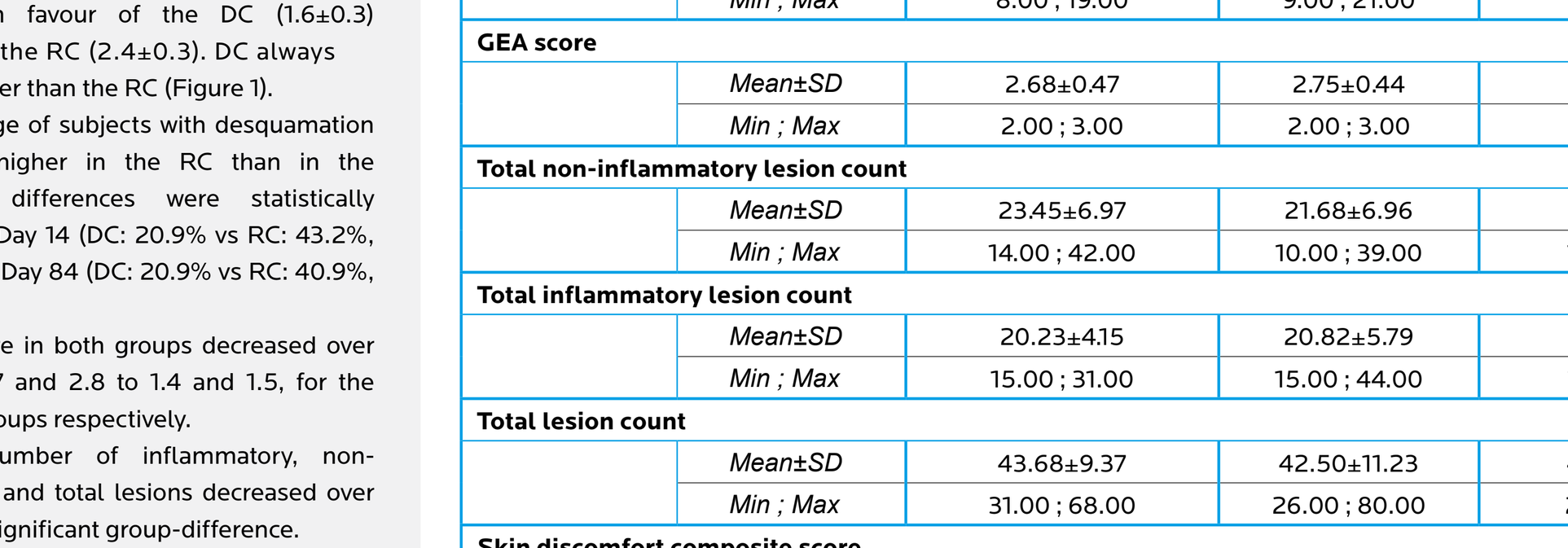
RESULTS

- Overall, 88 subjects were included in this study. Detailed demographic and main baseline data are given in Table 1.
- After 7 days of care with the adapalene/BPO-based fixed combination and the DC or RC regimens, the skin discomfort score had increased more rapidly with the RC (2.6±0.3) than with the DC (2.2±0.3). After 14 days of care, it had decreased in both groups, with a significant mean difference (0.8 points, p=0.0049) in favour of the DC (1.6±0.3) compared to the RC (2.4±0.3). DC always performed better than the RC (Figure 1).
- The percentage of subjects with desquamation was always higher in the RC than in the DC group; differences were statistically significant at Day 14 (DC: 20.9% vs RC: 43.2%, p<0.026) and Day 84 (DC: 20.9% vs RC: 40.9%, p<0.044).
- The GEA score in both groups decreased over time from 2.7 and 2.8 to 1.4 and 1.5, for the DC and RC groups respectively.
- The total number of inflammatory, non-inflammatory and total lesions decreased over time with no significant group-difference.
- The cosmetic acceptability at the end of the study was higher for the DC than for the RC regimen.

Table 1
DEMOGRAPHIC AND MAIN BASELINE DATA

		Dermocosmetic Group (N=44)	Routine Care Group (N=44)	Global Study Population (N=88)
Age				
	Mean±SD	21.18±3.92	21.39±4.10	21.28±3.99
	Min ; Max	16.00 ; 33.00	18.00 ; 44.00	16.00 ; 44.00
Duration of acne (year)				
	Mean±SD	8.98±4.13	8.41±4.72	8.69±4.42
	Min ; Max	3.00 ; 21.00	2.00 ; 31.00	2.00 ; 31.00
Age at onset of acne				
	Mean±SD	12.20±2.25	12.98±2.25	12.59±2.27
	Min ; Max	8.00 ; 19.00	9.00 ; 21.00	8.00 ; 21.00
GEA score				
	Mean±SD	2.68±0.47	2.75±0.44	2.72±0.45
	Min ; Max	2.00 ; 3.00	2.00 ; 3.00	2.00 ; 3.00
Total non-inflammatory lesion count				
	Mean±SD	23.45±6.97	21.68±6.96	22.57±6.99
	Min ; Max	14.00 ; 42.00	10.00 ; 39.00	10.00 ; 42.00
Total inflammatory lesion count				
	Mean±SD	20.23±4.15	20.82±5.79	20.52±5.01
	Min ; Max	15.00 ; 31.00	15.00 ; 44.00	15.00 ; 44.00
Total lesion count				
	Mean±SD	43.68±9.37	42.50±11.23	43.09 ±10.30
	Min ; Max	31.00 ; 68.00	26.00 ; 80.00	26.00 ; 80.00
Skin discomfort composite score				
	Mean±SD	0.84 (+/-0.96)	0.75 (+/-0.78)	0.80 (+/-0.87)
	Min ; Max	0.00 ; 4.00	0.00 ; 3.00	0.00 ; 4.00

Figure 1
EVOLUTION OF THE MEAN SKIN DISCOMFORT COMPOSITE SCORE OVER TIME



DISCUSSION

DC, a specific skin care developped for subjects with acne, significantly reduces retinoid/BPO-based fixed combination-related local signs and symptoms as well as skin discomfort compared to RC as soon as within the first 14 days of treatment without interfering with the clinical efficacy of the treatment thus helping to maintain treatment adherence.

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Key words:
acne, efficacy, tolerance, dermocosmetic, sensitive skin

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