# A cosmetic product shows brightening/whitening effect after 4 weeks under normal conditions of use, in adult females with facial hyperpigmentation

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## **INTRODUCTION & OBJECTIVES**

Photoaging leading hyperpigmentary disorders and uneven skin tone is a major cosmetic concern as even-toned skin is universally associated with healthy skin. Current treatments for pigmentary disorders include drugs such as hydroquinone or topical steroids which often produce undesired side effects and are not suitable for all skin types. For that reason, skin care specialists are looking for long-term cosmetic products to address such concerns. We conducted a study to assess the tolerability and whitening effectiveness of a cosmetic product containing ingredients with skin whitening activity like Niacinamide, Hydroxyphenoxy Propionic Acid and 4-n-Butylresorcinol.

## **MATERIALS & METHODS**

		Product use: Twice da	ily (ma
	D 33 female > 1 measurable pigmented spot	0 Assess	ments
Figure 1	Clinical Scoring by Dermatologist	<ul> <li>Color intensity of the pigmented spot</li> <li>Complexion homogeneity</li> </ul>	- Ski - Ski - Ov asp
	Instrumental	- Visioface images	
	Subjective Questionnaire	<ul><li>Cosmetic Qualities</li><li>Product Efficacy</li></ul>	

Figure 1. Study design

Statistical analysis was performed by Repeated Measurement ANOVA and results were considered significant at p<0.05.

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## RESULTS

After 4 weeks of use the product reduced significantly the appearance of spots and improve the skin homogeneity analyzed by Visioface (Figure 2 and Table 1).







Figure 2: Visioface images

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lable	Spots	
	Skin homogeneity	

 Table 1. Visioface analysis

Moreover, several clinical evaluations show statistical improvement (Table 2).

		%Variation	p-value
Table 2	Colour intensity of the pigmented spot	-10%	0.0039
	Complexion homogeneity	+17%	0.0001
	Skin brightness	+12%	0.0002
	Skin luminosity	+15%	< 0.0001
	Overall appearance of moisturized skin	+34%	< 0.0001
	Clinical avaluation		

%Variation	p-value
-10%	< 0.001
+10%	< 0.0001

Participants reported high leve satisfaction with the results af weeks of use (Figure 3).

				Self-asse	essment
	My	<mark>skin see</mark> r	ns healtl	hier	
	My	<mark>skin is so</mark>	othed		
	My	<mark>skin is s</mark> r	noother		
	The	product	refines s	skin textur	9
	The	product	leaves tl	ne skin mo	ore hydra
	The	product	helps to	fade brow	n spots
	The	product	withens	the skin	
	The	product	has dep	igmenting	effect
	The	product	evens o	ut the skin	tone
	The	product	minimiz	<mark>es dark sp</mark>	ots
	The	product	minimiz	es the app	earance
	The	product	minimiz	es the size	of colou
	50%		60%		70%

Figure 3: Results of the subjective questionnaire done by the volunteers after 28 days of use.

Cutaneous acceptability of the investigational product was considered as good.

## CONCLUSIONS

Significant improvement of skin complexion and reduction of the skin hyperpigmentation linked to photoaging suggests that the cosmetic product containing ingredients like Niacinamide, Hydroxyphenoxy Propionic Acid and 4-n-Butylresorcinol, could be considered effective after 4 weeks of treatment. The tolerance of the product was good.

### References

Ohad N. Glabrene and Isoliquiritigenin as Tyrosinase Inhibitors from Licorice Roots. J. Agric. Food Chem. 2003, 51, 1201-1207 Hakozaki T. The effect of niacinamide on reducing cutaneous pigmentation and suppression of melanosome transfer. Br J Dermatol. 2002 Jul;147(1):20-31.

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questionar	ie result	S		
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of colour im	perfectio	ons		
r imperfection	ons			
80%	)	90%	100%	/ 0



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