

MANAGEMENT OF HYPERPIGMENTATION IN THE ARMPITS AND GROIN FOLDS WITH A DEPIGMENTING DERMO-COSMETIC PRODUCT

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INTRODUCTION

Repeated rubbing can lead to localized hyperpigmentation (armpits, groin, elbows, knees, etc.), particularly in darker phototypes. Less well-known than hyperpigmentation in senile lentigo, melasma, or post-inflammatory hyperpigmentation type, these friction melanoses nonetheless affect women's quality of life. A clinical study was therefore conducted to assess the efficacy and safety of a specific whitening depigmenting dermo-cosmetic product and adapted to these particularly sensitive parts of the body.

MATERIALS & METHODS

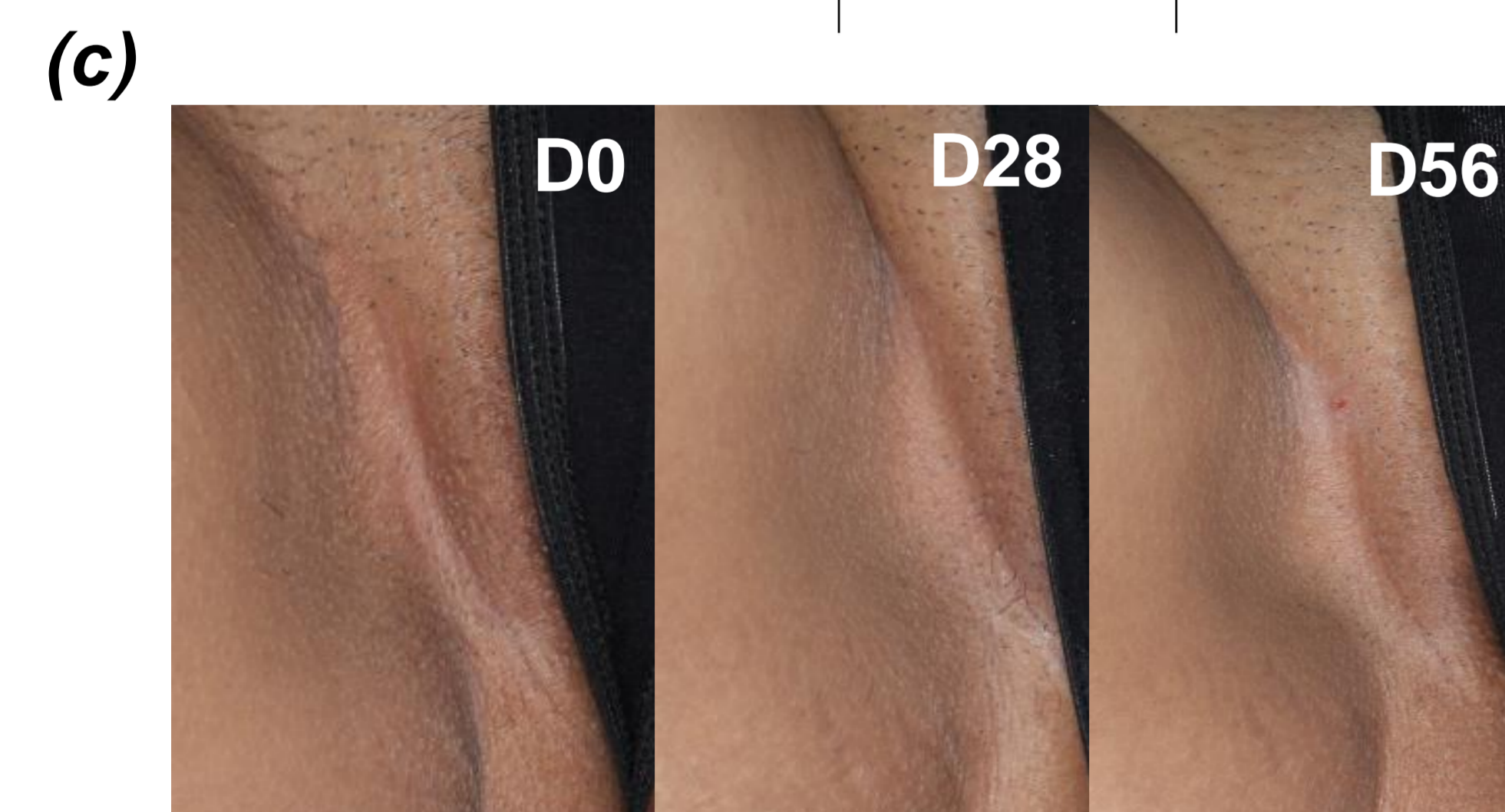
A randomized, controlled and comparative trial was conducted in Brazil on 72 subjects under dermatological or gynecological control depending on the group: one group of subjects with hyperpigmentation in the armpits and the other in groin folds, with a clinical pigmentation score > 1.0 and > 0.5, respectively. The tested product contains a patented combination of depigmenting active ingredients (*Andrographis paniculata* leaf extract, *Glycyrrhiza glabra* [licorice] root extract, azelaic acid), and a soothing *Laminaria ochroleuca* extract. It was applied twice a day for 56 days (D56) after cleaning the pigmented area. Depigmenting efficacy was assessed at D0, D28 and D56 on the affected areas by measuring the lightening, using: (i) a grading scale from -4.0 (intense lightening) to +4.0 (intense darkening), (ii) a chromameter to assess luminance and skin color (the higher the ITA° [Individual Typological Angle] the lighter the skin), and (iii) photographs. Underarm photographs were also used to quantify the pigmented area (not measurable for groin). Moreover, the subjects judged the subjective efficacy of the product at D56 using a questionnaire. Skin safety was assessed at D28 and D56 by a dermatologist (armpits area) or a gynecologist (groin area).

RESULTS

The **31 subjects per group** who completed the study had an average age of 35 years (18 to 55 years) for groin group and 36 years (18 to 53 years) for armpit group. For both groups, at D56 all parameters were significantly improved (**Figures 1 and 2**).

Figure 1: Significant lightening effect in groin area: hyperpigmentation score and luminance (a), ITA° (b) and pictures (c)

(a)	Groin	D28 vs D0	D56 vs D0
Hyperpigmentation score		-4.5%*	-9.1%**
Luminance		+8.3%***	+12.7%***



Subject #4

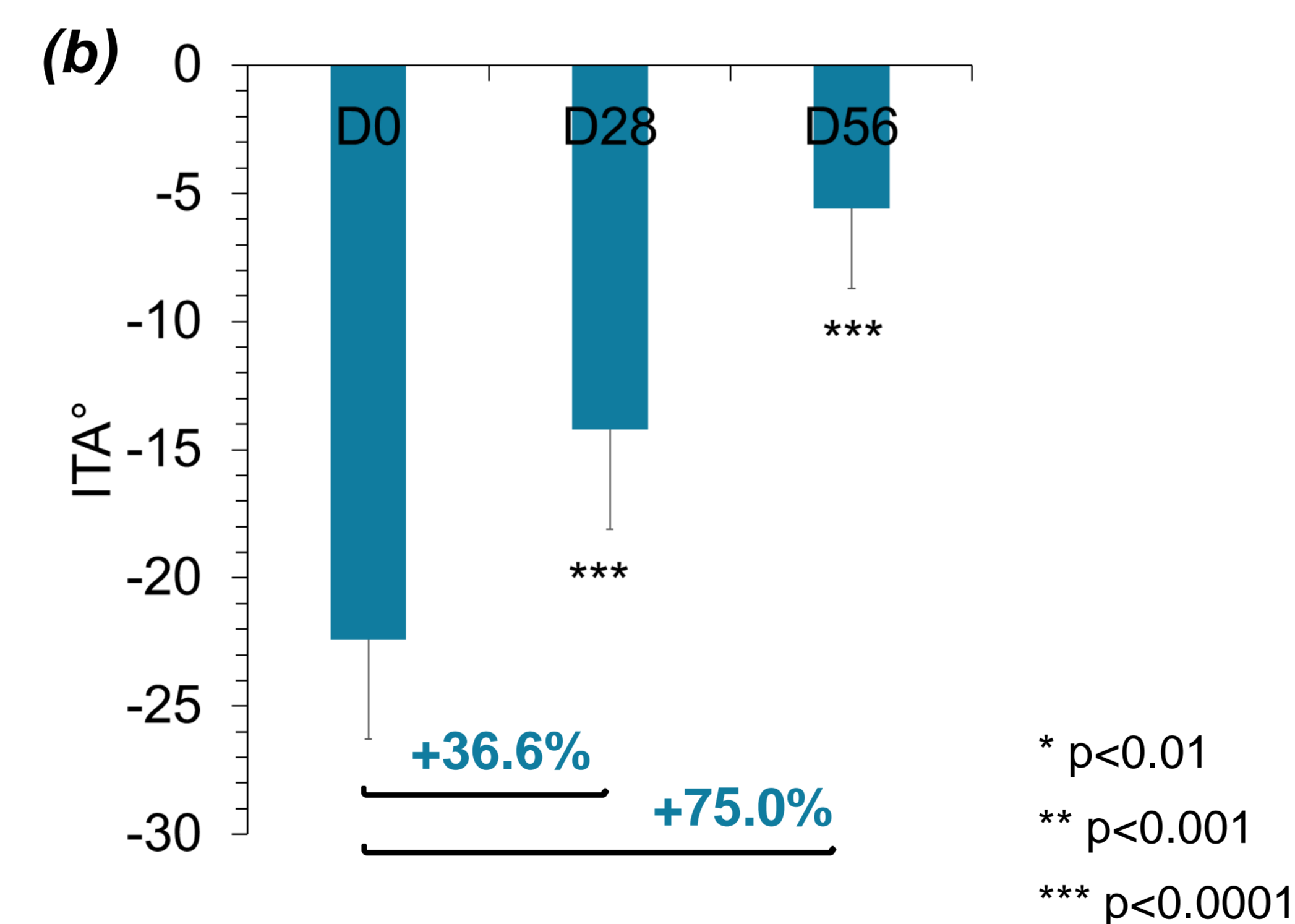
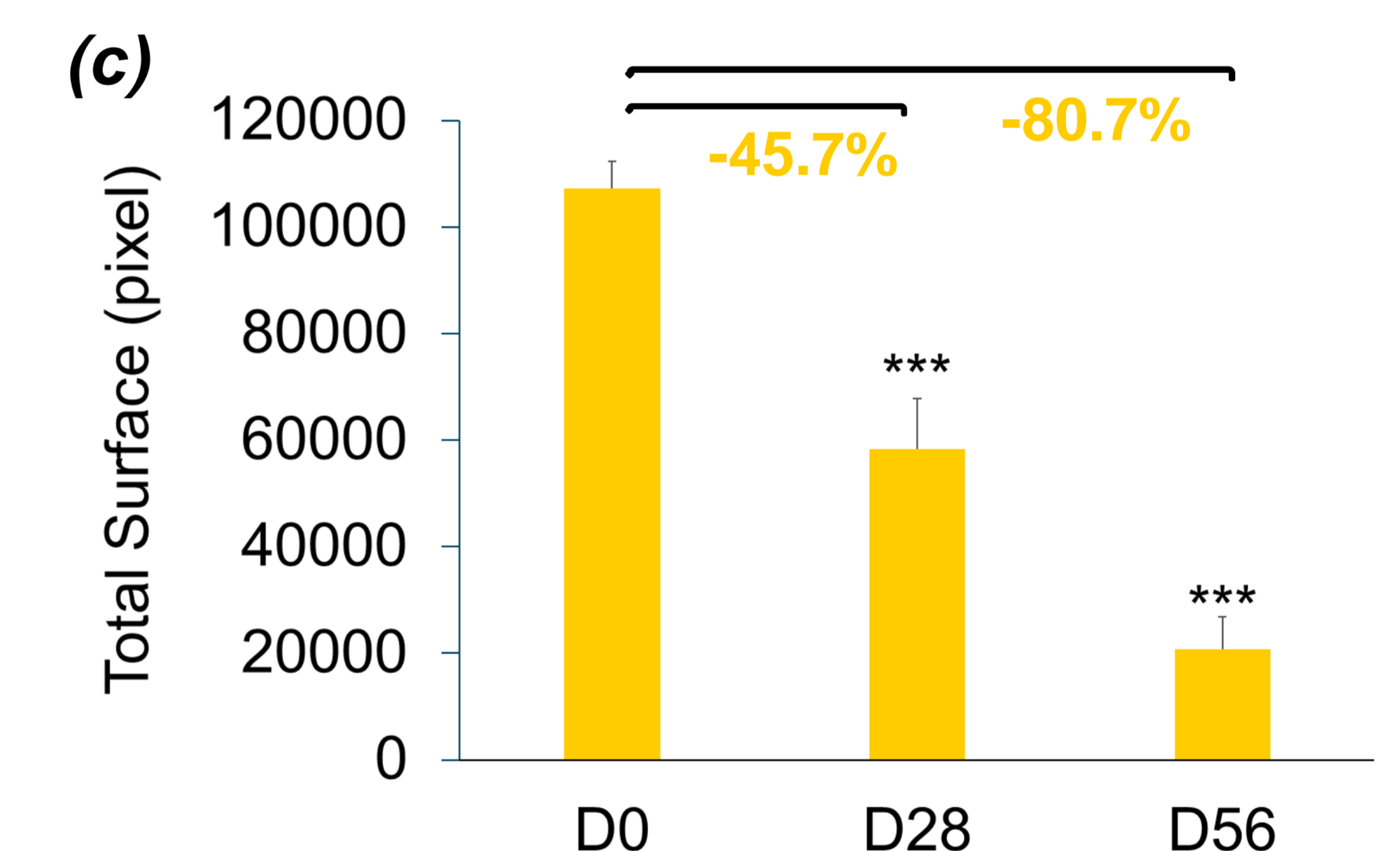
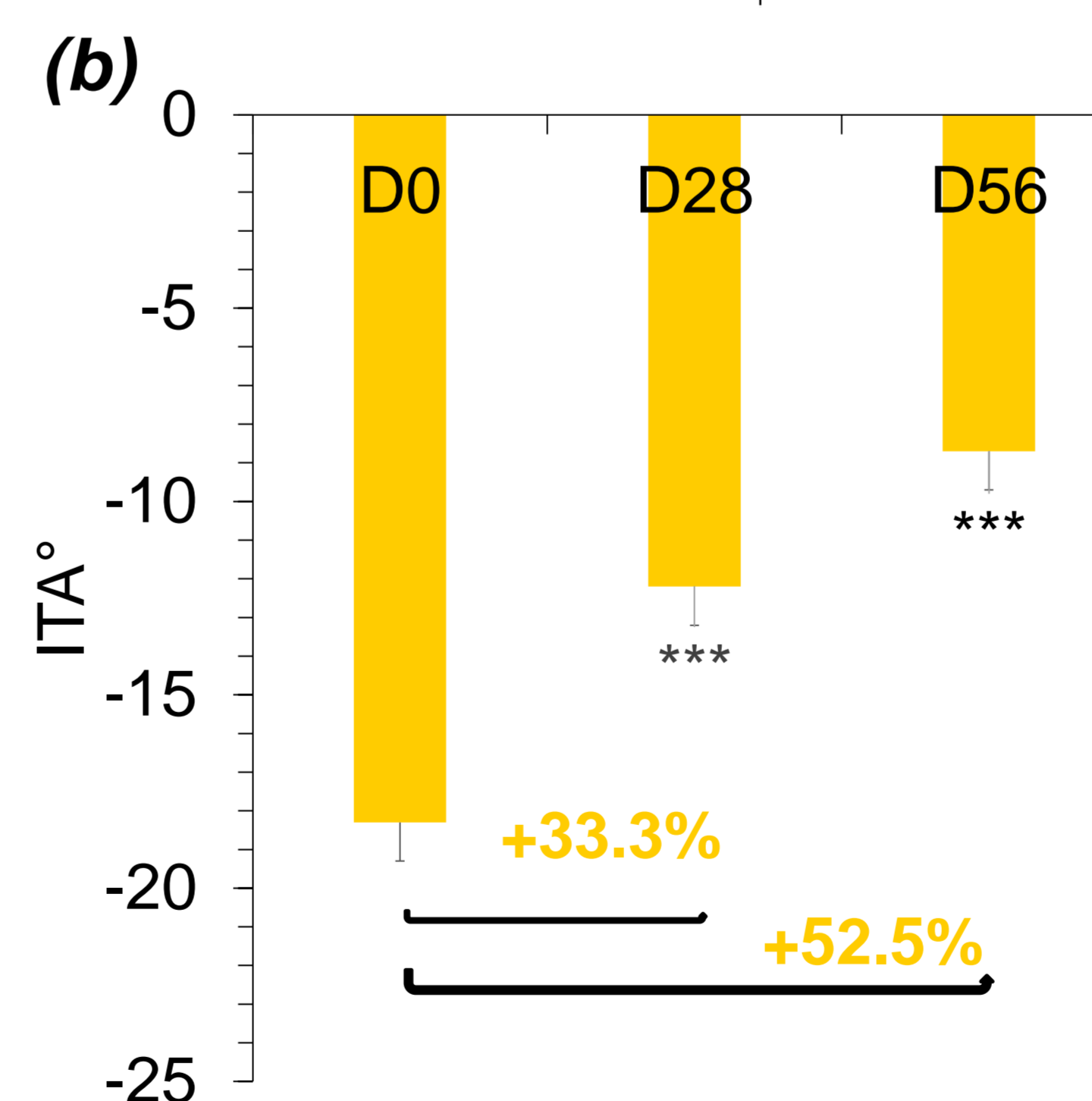


Figure 2: Significant lightening effect in armpits area:

hyperpigmentation score and luminance (a), ITA° (b), pigmented surface (c), and pictures (d)

(a)	Group 1	D28 vs D0	D56 vs D0
Hyperpigmentation score		0	-9.1%*
Luminance		+3.6%***	+7.1%***



Subject #19

80 to 90% of the subjects judged the product to be effective in preventing new brown spots, but also in reducing spots, and installed marks. No adverse effects or discomfort related to the product have been reported during the study.

CONCLUSION

These results show that this specific depigmenting dermo-cosmetic product reduces hyperpigmentation in the armpits and groin folds as early as 28 days while being very well tolerated.