

P 804 Topical turmeric extract in a moisturizing cream formula reduces the appearance of facial spots and fine lines and wrinkles on human facial skin.

C. L. Swanson¹, Ph.D., G.A. Deng², Ph.D., J. R. Kaczvinsky¹, Ph.D., J. Li¹, M.S., MA, S. C. Pepple¹, P. S. Raleigh¹, and L.R. Robinson¹, Ph.D.
P&G Beauty & Grooming, ¹Cincinnati, Ohio USA, ²Beijing, PRC,

INTRODUCTION

Turmeric (*Curcuma longa*) has a long record of use in Indian Ayurvedic Medicine. Extracts of the Turmeric plant have a history of strong anti-inflammatory and anti-oxidant properties, making them ideal candidates for providing facial benefits. However, the intense color, strong odor, and limited stability of turmeric extracts have prohibited their use in topical cosmetic products. Here we report the identification of a nearly colorless, odorless, and stable turmeric extract and verify its ability to improve the appearance of fine lines and wrinkles and to reduce the appearance of hyperpigmented spots.

METHODS

General Clinical Study Design:

- Double-blind, vehicle-controlled, split-face, left-right randomized clinical study.
- Subjects with periorbital wrinkles and facial hyperpigmentation were recruited.
- All subjects used the same facial moisturizer product during the wash-out period and same facial cleanser during the entire study.
- Facial moisturizers were applied twice daily to freshly cleansed skin.
- Facial images were captured at:
 - end of wash-out period (baseline)
 - after 4 and 8 weeks of treatment.
- Hyperpigmented spot image analysis and FLW expert grading performed on blind-coded images.

OBJECTIVE

To clinically evaluate the effect of topical turmeric extract, alone and in combination with niacinamide, on the appearance of fine lines and wrinkles as well as facial hyperpigmented spots in Chinese and Caucasian subjects.

Caucasian skin study

- November-December in Chicago, Illinois
- 89 Caucasian females
- Age 40-60
- 10 week study: 2 weeks of washout followed with 8 weeks of product application.
- Treatment: Moisturizing cream containing turmeric extract + niacinamide vs. Niacinamide alone

Chinese skin study

- October-December in Beijing, China
- 105 Chinese females
- Age 25-55
- 9 week study: 1 week of washout followed with 8 weeks of product application.
- Treatment: Moisturizing cream containing turmeric extract alone

RESULTS



Figure 1. Caucasian Clinical Study Results:

- The formulation containing the combination of turmeric extract and niacinamide was significantly better at reducing the appearance of fine lines and wrinkles than the formulation containing only niacinamide at 4 weeks ($p=0.004$), directionally better at 8 weeks ($p=0.125$), and significantly better overall ($p=0.009$) based on repeated measures as judged by expert graders. Images showing both average and high responses are shown.

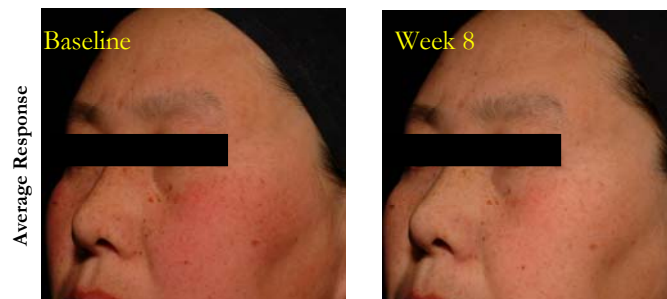


Figure 2. Chinese Clinical Study Results:

- The formulation containing only turmeric extract reduced the appearance of hyperpigmented spots by 14.16% ($p<0.0001$) at 4 weeks and by 14.91% ($p<0.0001$) at 8 weeks as measured by NC2-Spot Area Fraction vs. baseline. Images showing average response are shown.

CONCLUSIONS

A moisturizing cream containing turmeric extract + niacinamide was more effective than a moisturizing cream containing niacinamide alone at reducing the appearance of fine lines and wrinkles in Caucasian skin. (Figure 1.)

A moisturizing cream containing turmeric extract + niacinamide was clinically effective at reducing the appearance of facial hyperpigmented spots in Chinese skin. (Figure 2.)

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