Protection against summer solar lentigo over-pigmentation with a SPF30 daily cream.

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ABSTRACT
BACKGROUND/PURPOSE: The aim of this study was to measure lentigines’ pigmentation over a long period of time and evaluate if summer over-pigmentation can be avoided by the use a SPF30 daily skin cream.

METHODS: Seventeen healthy female volunteers aged 50 and over and presenting lentigines participated in the study from spring to summer. Throughout the study, all subjects applied a SPF30 daily skin cream to only one hand. Color measurements of the target lesions were performed with a chromameter and with a color-calibrated camera. Target lesions were also imaged with in vivo reflectance confocal microscopy (RCM). A specific procedure for re-registering the images was developed to ensure that the same papillae were measured over time.

RESULTS: Both color measurement methods, chromametry and color-calibrated camera, showed that lentigines treated over time with the SPF30 daily skin cream were significantly lighter than the non-treated lentigines. The RCM images showed a decrease in the papillary contrast for the treated lentigines.

CONCLUSION: This study shows that this over-pigmentation can be avoided using a SPF30 daily skin cream. Moreover, we have demonstrated that very fine re-registration of the RCM images is possible and ensures a more robust analysis.

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