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CA protected skin from UV induced photoaging and photoinflammation

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Long term exposure to UV irradiation damaged skin through degrading extracellular matrix, including collagen, elastin, proteoglycans, and fibronectin, and cause skin photoaging and photocarcinogenesis. Agents inhibited mechanisms of photoaging would be useful to slow down the aging process. Plants rich in polyphenols possessed a variety of biological activities including inhibition of MMP-1 and elastase, may be candidates for anti-photoaging. In our study, CA exhibited antioxidant activity and free radical scavenging activities. In addition, it also inhibited MAPK phosphorylation, MMPs expressions and increased

collagen synthesis in the skin. In addition, CA inhibited UV-induced COX-2 and p-IkB expressions, and nuclear factor-kappa B activation by inhibiting the translocation of NF-kB to the nucleus. CA alleviated UV-induced photoaging and photodamage in BALB/c hairless mice by restoring the collagen content and reduced UV-induced epidermal hyperplasia. CA inhibited the expression of IL-1, iNOS and COX-2 in mouse skin. The results of this study showed that CAE is a candidate for use in antioxidant, anti-inflammatory, and antiphotodamage products..

Biography

Hsiu-Mei Chiang is the professor and director of Department of Cosmeceutics, China Medical University, Taiwan. She got her B Sc in Pharmacy, M Sc in Environmental Health, Doctor's degree (Ph.D.) in Pharmaceutical Chemistry. She was a Visiting Scholar in National Center for Toxicological Research, FDA, USA and Kitami Technology Institute, Japan. And her research interests are development of functional cosmetics, research of photoaging and phototoxicity, dermacosmeceutic pharmacokinetics, and nano-carrier dosage form and delivery.

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