〈講 演〉

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紫外線から肌を守り、いつまでも美しく 一皮膚科医から香粧品業界に望むこと—

川田 暁

A Proposal from a Dermatologist to the Cosmetic Industry for UV Protection and Healthy Skin

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Abstract

Recent cosmetics with pharmaceutical functions are designated as cosmeceuticals. Cosmeceuticals consist of sunscreen, moisturizer, whitening product, anti-wrinkle product, and anti-photoaging product. In 2006, the committee for studying evaluation methods for cosmetic functions of Japanese Cosmetic Science Society reported the guidelines for evaluation of cosmetic functions. They include guidelines for new efficacy claims of sunscreen products and guidelines for evaluation of anti-wrinkle products. Sunscreens are necessary to prevent UV-induced acute and chronic photodamages from the skin. The guidelines for new efficacy claims of sunscreen products proposed new efficacy claims that daily use of sunscreen products can prevent the development of wrinkles and spots (photoaging) caused by the long-term exposure to UV. Some problems in SPF (sun protection factor), PA grade, applied dose, reapplication, water-resistance, photostability, and adverse effects should be resolved in the future. Anti-wrinkle products contain vitamin A derivatives (retinol and retinylester), niacinamide, and emilin-related compounds, that stimulate hyaluronic acids in keratinocytes and fibroblasts, collagen and elastin production in fibroblasts. The guidelines for evaluation of anti-wrinkle products determine the evaluation methods as visual, photographic evaluations and instrumental analysis. Visual, photographic evaluations are performed with reference to standard wrinkle grades. Instrumental analysis includes two-dimensional or three-dimensional instrument analysis of replicas or in vivo threedimensional analysis. Safety and precise methods in use of anti-wrinkle products should be investigated. Finally, dermatologists and investigators in pharmacy and cosmetic science should collaborate more and more for the healthy skin of general people.

Key words: cosmeceuticals, photoaging, sunscreen, anti-wrinkle product, guideline.