

〈教育セミナー〉

光老化を防御する—光に関する基本知識から最新のサンケア製品まで—

長期皮膚老化調査から得られた皮膚の光老化の特徴および  
老化防御対策について

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**Characterization of Skin Photo-Aging through Skin Longitudinal Research,  
and It's Application to Skin-Aging Protection**

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**Abstract**

It is well known that excess sun UV exposure accelerates skin damage and aging. However, there are few studies to understand the impact on the skin aging under mild daily sun exposure in general life style such as office workers and/or house-keeping wives. Also, it is not well understood the longitudinal progression of chronic skin aging and its variation of individuals. Two clinical research trials were carried out to quantify and characterize chronic skin photodamage and longitudinal skin aging under general life style among Japanese women in Japan. First, we investigated chronic photodamage on the facial skin among totally 602 Japanese women who permanently lived in two different locations between Akita (low annual sun UV exposure) and Kagoshima (high UV exposure), and observed there were statistically significant worse in visible signs of skin aging such as skin darkness, wrinkles and hyperpigmented spots among the subjects who lived in Kagoshima than those of lived in Akita, especially age over 45. Second, we have trucked longitudinal facial skin aging over 11 years among 108 Japanese women who permanently lived in Akita. We found facial skin aging appearances and its longitudinal progression were not equally to all individuals, and variation of chronic skin aging appearances became larger by age, even over age 70. It was also demonstrated that their skin care habits and practice influenced on the variation of skin aging. For example, subjects who frequent used sun-screen and/or skin whitening formula over 11 years showed better visible appearances of facial skin such as hyperpigmentation and wrinkles.

**Key words:** skin photodamage, longitudinal skin aging, skin appearances, wrinkles, hyperpigmented spots.