〈原　著〉

いわゆる敏感肌についての皮膚機能の検討を含めた健常成人女性の加齢に伴う皮膚の機能的変化

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Effect of Aging on the Skin Function of Healthy Female Volunteers and the Study on the Skin Function of "Sensitive Skin"

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Abstract

We measured sebum output, high frequency conductance, transepidermal water loss (TEWL), skin surface pH, skin color and skin surface temperature to study biophysical skin function on the skin of the cheek and the volar forearm in 61 healthy Japanese females aged 20–78 years from August 14 to October 9, 1998. Sebum output peaked 3rd to 4th decades then significantly decreased with age. High frequency conductance value for hydration state of the stratum corneum decreased on the volar forearm with age, whereas no age-related change was observed on the cheek. A decrease in TEWL, a parameter for an increased water barrier function of the skin, was much clearer on the cheek than on the volar forearm. Luminance in skin color significantly decreased both on the cheek and the volar forearm. A significant increase in yellowness parameter with age without changing in the redness parameter was noted on the cheek. An increase in skin surface temperature was observed on the volar forearm but not on the cheek. No age-related change was noted in skin surface pH measurements both on the cheek and the volar forearm. By questionnaire, approximately 38% (under 40 years) females was reported to have "sensitive skin," however, no statistical significance was found in sebum output, skin color, skin temperature, conductance, TEWL or pH values between self claimed sensitive and non-sensitive subjects.

Key words: skin function, stratum corneum, bioengineering, age-related change, sensitive skin.