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〈一般論文〉

睫毛の成長特性

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Features of Eyelash Growth

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Abstract

A lot of Japanese women are using eye make-up cosmetics such as mascaras to show eyelashes long and thick. On the other hand, damage by the mascara is pointed out, and an appropriate caring for eyelashes is required. However, features of eyelashes remain unclear. In this study, we clarified characteristic features regarding growth of eyelash by phototrichogram and an expression of growth related gene in eyelash follicles to suggest how to care for eyelashes.

A mean length of eyelashes was 8.43±1.11 mm（mean±S.D.）and a mean anagen ratio was 26.8 ±5.9% on 18 Japanese women. According to growth curves of 33 eyelashes of 4 subjects, a mean duration of hair cycle, anagen and telogen, and a mean growth rate were 116.8±16.5 days, 37.6±5.8 days, 79.2±14.3 days and 0.182±0.018 mm / day, respectively. Individual cilia lengths significantly correlate with individual anagen duration. It appears on the view that cilia length of Caucasian females is longer than that of Asian females, but average cilia length of Japanese female was equivalent to that of Caucasian female. We speculate that this discrepancy may be resulted from the difference of eyelid structure. In eyelash follicles, some genes related to hair growth were expressed. Stevioside, a major component of Stevia extract, proceeded a proliferation of cultured scalp hair follicle cells and a gene expression of Msx2 on *ex vivo* eyelash follicle. To keep eyelash of Japanese women healthy, it may be important to keep anagen phase longer and appropriate care of eyelids.

Key words: eyelash, hair cycle, Japanese women, Msx2, phototrichogram.