

〈一般論文〉

カミソリによる剃毛が皮膚に及ぼす影響

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Effect of Razor Shaving on the Skin

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Abstract

Evaluation of the razor performances is usually carried out by sensory evaluation and blade cutting load measurement, but there are few studies that measure skin damages quantitatively. Some previous studies tried to measure it with transepidermal water loss (TEWL) measurement and reported that razor shaving lowered skin barrier function. However, they did not describe precise conditions of the shaving and TEWL measurement, nor the mechanism of increasing TEWL value.

In this study, to evaluate the effects of razor shaving on the skin, we conducted two experiments using excised porcine ear skin. One was measurement of temporal changes in TEWL and stratum corneum (SC) water content before and after the shaving. The other was estimation of removed SC depth by shaving using combination of the fluorescent staining and tape stripping methods.

We confirmed that TEWL and SC water content were slightly increased by the shaving though the increase was far less than that induced by repetitive tape strippings. Evaluation of the gradient of fluorescent-stained SC revealed that the removed SC depth by the shaving was almost the same as that of the first tape stripping. These results indicated that shaving caused damage to skin but it was probably very slight.

Key words: razor shaving, skin barrier, TEWL, stratum corneum, evaluation methods.