〈原　著〉

t-AMCHA のヒト皮膚バリアー機能回復過程への影響
——バリアー破壊後の組織化学的検討と t-AMCHA の効果について——

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The Mechanistic Study of the Barrier Recovery by t-AMCHA Application on Human Skin

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Abstract

We already reported that *trans*-4-(aminomethyl) cyclohexane carboxylic acid (t-AMCHA) accelerates skin barrier recovery in both hairless mice and humans. To increase our understanding of the mechanism of the t-AMCHA on the barrier recovery, we examined the histochemical features of human epidermis 2 h after barrier disruption. Proteolytic activity in the epidermis increased after barrier disruption. This increase was decreased in plasminogen-free substrate gel and was inhibited by t-AMCHA. Both nile red staining and electron microscopic study showed better recovery of intercellular lipid in upper epidermis of t-AMCHA treated skin than that of water applied control. These results suggest that the increase in epidermal protease activity is detrimental to barrier recovery and inhibition of this activity accelerates intercellular lipid repair response.

Key words: barrier function, lipid, t-AMCHA.