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Basket-weave 角層に着目した化粧品開発

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Development of Cosmetics Focusing on the Basket-weave Stratum Corneum

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Abstract

The stratum corneum, the outermost layer of the skin, retains water and functions as a chemical and physical barrier against external stimuli. The upper layer of normal stratum corneum has a basket-weave structure, and the gaps between the cells of this skin layer are filled with intercellular lipids. We focused on this basket-weave structure and examined its role in the function and condition of the stratum corneum. Results indicated that the basket-weave structure is important for improving the barrier function and flexibility of the stratum corneum. Investigation of skin care formulations that promote the formation of the basket-weave stratum corneum revealed oil-in-water emulsion A as a formulation that not only promotes the formation of the basket-weave stratum corneum, but also enhances the barrier function and flexibility of this essential skin layer.

Key words: stratum corneum, basket-weave structure, desmoglein 1, oil-in-water emulsion.