

〈教育シリーズ〉

化粧品を扱う人々が知っておきたい皮膚障害と化粧の有用性～臨床現場から～

化粧品による皮膚障害メカニズム

鈴木茉莉恵, 伊藤雄太, 中田土起丈*

Mechanism of Adverse Effects to Cosmetics

Marie SUZUKI, Yuta ITO, Tokio NAKADA*

Abstract

Adverse effects to cosmetics are multifactorial; of these, contact dermatitis is the most common, and shows eczematous reactions such as papules, erythema, and vesicles at contact sites with the causative agent. Contact dermatitis is classified into three types: irritant contact dermatitis, allergic contact dermatitis, and photocontact dermatitis. All are initiated by the penetration of a chemical. Its epicutaneous stimulus make keratinocytes secrete cytokines, and inflammation depending on the innate immune system. Allergic contact dermatitis is a delayed-type hypersensitivity reaction mainly involving T cells and antigen-presenting dendritic cells. Recent studies demonstrated that the innate immune system plays an important role for its sensitization and expression of eczema phases. Photocontact dermatitis is produced from the combination of a skin contact with a compound together with ultraviolet light. Contact urticaria patients develop localized wheal immediately after direct contact with a causative substance. It is divided into three types: immunological, non-immunological, and one with unclear mechanism. Immunological contact urticaria is a type I sensitivity immunological reaction, and this type can produce anaphylactoid reactions. The mechanism of leukoderma due to rhododendrol is thought caused by the metabolite that is a product of rhododendrol bound to tyrosinase. The metabolite produces reactive oxygen species and depletes the intracellular antioxidant glutathione, which to be responsible for melanocytes death. Cosmetics occasionally lead to exacerbation of skin diseases: *e.g.*, atopic dermatitis and acne vulgaris. In such cases, most are produced by inadequate choice of cosmetics, respectively.

Key words: cosmetics, contact dermatitis, contact urticaria, leukoderma.