

シンポジウムII

皮表における脂質過酸化反応とその防御

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Lipid Peroxidation on Human Skin Surface and Prevention of its Generation

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Abstract

The peroxidation of human skin surface lipids was investigated by a CL-HPLC (chemiluminescence-high performance liquid chromatography) system. Squalene monohydroperoxide was produced at the forehead and the scalp as well as in the dandruff under daily life conditions in most of the cases. Therefore it was considered that squalene was the first target lipid on a human skin surface by an oxidative stress. In order to confirm the effect of squalene monohydroperoxide on cultured cells and the living skin equivalent (Testskin™), an authentic sample was prepared. We also found that the application of cosmetics and the ingestion of aliments containing antioxidants had a preventive effect against the lipid peroxidation on skin surface.