

〈原著〉

可視光と化粧品（第Ⅲ報）

皮膚明度におよぼす化粧品用液体脂の影響

高橋きよみ*, 鈴木 守*

Visible Light and Cosmetics (III): Effects of Liquid Oils on Skin Lightness

Kiyomi TAKAHASHI*, Mamoru SUZUKI*

Abstract

In a previous report²⁾, it was shown that commercial creams caused the lightness reduction of skin without melanization and was suggested that the creams induced a temporary optical darkening (TOD); namely, the complexion of the users merely appeared darker. Accordingly, to confirm that the effect was derived from the liquid oils in the creams, a study was conducted by the applying of several oils on human skin and model test systems.

1. The lightness reduction was induced significantly by the application of mineral oil on human skin (Table 1). The reduction effect of this oil on the model system was similar to one of the creams (Figs. 1 and 2).
2. The application of squalane, olive oil and 2-octyl-dodecyl myristate showed as much lightness reduction as mineral oil and there was no significant difference among the effects of these oils (Fig. 3).
3. The lightness reduction of skin had the maximum point in the time-response curves due to the application of mineral oil and squalane.
4. The lightness reduction by the application of squalane decreased after the removal of squalane from the model system.
5. Conclusion.

Since it was confirmed that the application of four liquid oils was capable of reducing the lightness on the test systems and the reduction effect of the oils was temporary, it is obvious that the oils become a cause of the lightness reduction due to the creams and that these materials definitely induce the TOD as previously suggested.

Key Words

1. Lightness reduction
2. Human skin
3. Model system
4. Liquid oils
5. Temporary optical darkening (TOD)