

〈シンポジウム〉
「UVAに光を当てる」

UVA の 作 用—基 礎

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The Biological Effects of UVA Radiation — Laboratory investigations —

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Abstract

The biological effects of UVB can be easily recognized and much knowledge has accumulated regarding UVB-induced changes in molecules, cells, tissues and human skin. In contrast, much less attention has been paid to UVA radiation. The amount of UVA energy required to produce an effect on biological systems is orders of magnitude higher than for the UVB regions. However, the amount of solar UVA reaching the earth's surface is enormously greater than that of UVB, and the longer wavelength can penetrate deeper into the skin. Therefore, UVA radiation must have some biological effects. In this article, the following effects of UVA will be reviewed from the recent reports: (1) erythema, (2) tanning, (3) photoaging, (4) carcinogenesis, (5) DNA damage, (6) photoreactivation, (7) immunosuppression.

Key words: UVA, photoaging, carcinogenesis, DNA damage, photoreactivation.