

&lt;原 著&gt;

## 紫外線防御製品による接触皮膚炎 1991-1993年3月のまとめ

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### A Study for Contact Dermatitis due to Sunscreen Products during 27 Months from January 1991 to March 1992

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#### Abstract

We studied 449 cases who were patch tested with daily used cosmetics in our clinic during the 27 months from January 1991 to March 1993. Our aim of this study was to investigate the frequency of the patch test positive reactions to sunscreen cosmetics or their ingredients on the patients suspected cosmetic contact dermatitis.

Using Finn Chamber<sup>®</sup> and Scanpor<sup>®</sup> tape, **48-hour closed patch testings** with the cosmetics used by the subjects including sunscreen products were performed on the upper backs. We also conducted the predictive patch testing with 11 kinds of sunscreen products at the same time. Three kinds of UV absorbents (2.0% pet benzophenone-3, 5.0% pet octyl methoxycinnamate and 5.0% pet butyl methoxydibenzoylmethane) were tested to detect the prevalence of contact hypersensitivity to UV absorbents.

The **readings** were done at one and 24 hours after removals. Cosmetics were **read** based on Japanese **reading** standards and UV absorbents were **read** according to ICDRG recommendations. After one-hour **readings**, 6J/cm<sup>2</sup> UVA was irradiated to **see** UV hypersensitive reactions conveniently.

The number of patch-test-positive sunscreen products in 1992 (33) increased compared to that in 1991 (23). The positive ratio of sunscreen cosmetics in 1992 (21.5%) was also higher than that in 1991 (14.9%).

As the results of the predictive patch testing with 11 kinds of sunscreen cosmetics, the positive ratios of milky lotions were higher than those of creams and foundation creams. The highest positive ratio was 12.2% of milky lotion B and the lowest one was 0.9% of foundation cream C. There was a great difference in patch-test-positive ratios among the tested products.

The positive **ratios** of the three kinds of UV absorbents (2.0% pet benzophenone-3, 5.0% pet octyl methoxycinnamate and 5.0% pet butyl methoxydibenzoylmethane) were 1.0% or less than 1.0%. We concluded the high positive ratios of sunscreen cosmetics were due to irritant or allergic reactions to vehicles rather than allergic reactions to UV absorbents.

**Key words:** sunscreen cosmetic – UV absorbent – patch testing – contact dermatitis.