

〈原 著〉

Dermaflex A と Dermascan A 測定値からみた 部位差, 性差および加齢による皮膚変化

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Evaluation of Aging Skin by Dermaflex A and Dermascan A

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Abstract

Changes of the skin by aging and UV-radiation were investigated with Dermaflex A (Cortex Technology, Denmark) and Dermascan A (Cortex Technology, Denmark). Four each of healthy male and female volunteers were chosen in a young group (19 to 23 years in age) and elderly group (60 to 80 years in age). The following seven sites were adopted: median forehead, both zygomatic regions, back of both hands, and flexor aspect of both arms as a control.

Results obtained are as follows:

- 1) About the distensibility, the elderly group is significantly higher than the young group ($p < 0.01$), and no significant difference is found between the sex. The distensibility of flexor surface of arms is significantly higher than that of the back of hands ($p < 0.01$), and that of flexor surface of left arm than that of forehead and left zygomatic region ($p < 0.05$).
- 2) About the elasticity, significant differences are found between 4 groups, and the order of elasticity is young female, young male, elderly female and elderly male group from the higher. Among tested sites, the elasticity of flexor surface of left arms is the highest, and significantly higher than the other sun-exposed sites ($p < 0.01$).
- 3) About the hysteresis, the young female group is significantly smaller than the other 3 groups ($p < 0.01$), and no significant difference is found between two each of the latter groups. The hysteresis of facial skin is higher than that of the other 4 sites ($p < 0.01$). It seems that the hysteresis does not reflect any influence of UV-radiation or aging, but reflects just the anatomical difference.
- 4) About the thickness of skin, exactly from the skin surface to the dermis-subcutaneous tissue interface, no significant difference is found between the age group, but the male group is significantly thicker than the female group ($p < 0.01$). Among tested sites, the flexor skin of arms is thinner than the facial skin ($p < 0.01$), and the back of hands is thinner than the forehead skin ($p < 0.01$).

It is considered, thus, that the elasticity is the most reliable index of skin aging as well as dermatoheliosis.

Key words: Dermaflex A, Dermascan A, Skin Aging, Dermatoheliosis, Skin elasticity, Skin thickness