日本香粧品学会誌　Vol. 45, No. 3, pp. 185–190（2021）

〈一般論文〉

男性肌の特徴
—成人男女の肌状態および角層中抗酸化因子の比較—

鈴 木 牧 人*, 飯 田 年 以

Characteristics of the Male Skin
—Comparing Skin Conditions and How They Correlate with an Anti-Oxidant Factor in the Stratum Corneum between Men and Women

Makito SUZUKI*, Toshii IIDA

(Accepted: March 19, 2021)

Abstract

Recently, the values, consciousness, and behaviors regarding men's beauty have been changing. Similarly, most research with skin measurements in the past have only been performed on women and many of the characteristics specific to men's skin remain to be elucidated. In this study, we conducted a human test on healthy Japanese men and women, aged between 25 and 40 in summer. Our data suggested that men's skin in the cheek compared to women's showed the following characteristics: lower water content, higher trans-epidermal water loss, lower Ua/Uf value, which shows the skin's recovery rate, and lower Ur/Uf value, which shows skin elasticity when shrinking. Also, skin brightness (L^*) was significantly lower, and redness (a^*) and yellowness (b^*) were significantly higher in men, suggesting that men have darker, redder, and yellower skin. To find out the causes of these differences, we measured the amount of superoxide dismutase 1 in the stratum corneum (SC) in the cheek and newly discovered that the amount in men was less than half of that in women. Furthermore, the ratio of interleukin-1 receptor antagonist/interleukin-1 alpha, an indicator of chronic inflammation in the SC, was significantly higher in men. From our study, it was suggested that the cause behind this was not just the less frequent use of skincare and sun care. For damage caused by environmental stress in summer, it appears men's skin has a lower anti-oxidant ability after damage is sustained.

Key words: sex-related differences, men's skin, anti-oxidant, superoxide dismutase 1, environmental stress.