

〈一般論文〉

## 写真を用いたスコアリング評価法と相対的シワ程度の評価法との比較検討

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### Comparisons between the Relative Evaluation Method of Wrinkles and the Absolute Scoring Method of Wrinkles Using Photos

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(Accepted: July 5, 2013)

#### Abstract

The Japanese Cosmetic Science Society (JCSS) proposed an absolute scoring method of photos to evaluate anti-wrinkle products as guidelines. However, the relative evaluation of wrinkles using photos is also considered to be possible. In this study, 1-carbamimidoyl-L-proline (CLP) was used as an anti-wrinkle ingredient to compare those two methods. Subjects ( $n=126$ , 32–50 yrs) who had wrinkles on the right corner of their eyes were topically treated with a CLP (4%)-containing lotion or a placebo twice per day for 8 weeks. Photos and replicas of wrinkles on those areas were obtained at the start and the end of the test period. The absolute scoring method using photos proposed by the JCSS guidelines and the relative evaluation of wrinkles at the start and the end of the test were conducted to evaluate anti-wrinkle efficacy by trained expert for wrinkle evaluation. The relative evaluation of wrinkles was carried out by comparing the photos of the start with the end of the test by grading from 1 (apparent decrease) to 5 (apparent increase). Two- and three-dimensional roughness analyses of replicas were also carried out. The wrinkle score was significantly decreased in the CLP group compared with the placebo group ( $p<0.001$ ). The relative evaluation method also showed a significant decrease of wrinkles in the CLP group ( $p<0.001$ ) compared to the placebo group. A strong significant correlation ( $r=0.760$ ,  $p<0.001$ ) was observed between the absolute scoring method and the relative evaluation method. Significant correlations were also observed between the roughness analysis of replicas and the relative evaluation method. Consequently, our study suggests that the relative evaluation of wrinkles is equally useful for trained expert to evaluate anti-wrinkle products to the absolute scoring method.

**Key words:** skin wrinkling, comparative study, evaluation study, practice guidelines.