

〈一般論文〉

## 主観的睡眠状態と肌状態との関連

阿部裕子<sup>1,\*</sup>, 須摩 茜<sup>1</sup>, 樋口和彦<sup>1</sup>, 高木 豊<sup>2</sup>

### The Relationship between Subjective Sleep State and Skin Conditions

Hiroko ABE<sup>1,\*</sup>, Akane SUMA<sup>1</sup>, Kazuhiko HIGUCHI<sup>1</sup>, Yutaka TAKAGI<sup>2</sup>

(Accepted: May 9, 2023)

#### Abstract

We conducted a subjective sleep status determination using the Pittsburgh Sleep Quality Index questionnaire (PSQI score Japanese version), a skin awareness survey, the measurement of skin physical properties (stratum corneum water content, transepidermal water loss, viscoelasticity) using instrument, and stratum corneum analysis by tape stripping the skin of 204 healthy Japanese women ranging in age from the 20s to the 80s. Based on their PSQI scores, the subjects were divided into two groups, a good sleep group (129 subjects) and a poor sleep group (75 subjects), and the analytical data were compared between those two groups.

The results showed that the poor sleep group had more skin problems than the good sleep group, and their worries about skin dryness and a tired appearance were particularly strong. There was no statistically significant difference in the amount of transepidermal water loss between the two groups, but the water content of the stratum corneum of skin around the eyes was significantly lower in the poor sleep group. The results of the exfoliated stratum corneum analysis suggested that the stratum corneum cell area tended to increase in the poor sleep group, and the turnover rate may be slow.

Since 80% of the people in the poor sleep group had a PSQI score of 6 to 8 points, which was slightly higher than the PSQI cutoff value, it is thought that the main of the poor sleep group had mild sleep loss, but a significant difference was found between the two groups in terms of their skin properties. These results suggest that even a mild sleep loss delays epidermal metabolism and decreases the water content of the stratum corneum, and that this change may be recognized by skin problems such as dryness.

**Key words:** sleep, PSQI, dryness, corneocyte.