



DERMATOPATHOLOGY

A STUDY OF SKIN CHARACTERISTICS ACCORDING TO LONG-TERM SLEEP RESTRICTION

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Introduction/objective : In previous studies, there was a change such as the increase of pore size and the darkening of skin color when the sleeping was completely deprived. There are many studies of skin characteristics according to short - term sleep restriction, but there are few studies on skin characteristics when sleeping is restricted for more than 3 consecutive days. Therefore, the purpose of this study is to study skin changes when sleeping for 5 days is limited to 4 hours.

Materials and Methods : 30 Korean women in their 40s participated in the experiment. The hydration, skin gloss, dermal intensity, barrier recovery, skin texture, transparency, elasticity, crow's feet, nasolabial lines, skin color were measured. The subject's sleep time was monitored by a smart watch. The subjects slept 8 hours of sleep for 5 days at first week and the second week was 4 hours of sleep for 5 days.

Results : The skin hydration , skin gloss, dermal intensity, skin texture, skin color and crow's feet were significantly aggravated on the first day of sleep deprivation. The skin transparency was significantly aggravated on the third day of sleep deprivation. The skin elasticity was significantly gradually decreased after third day of sleep deprivation.

Conclusion : The elasticity and transparency did not change when the sleep was restricted to one day, but it was worse when the sleep restriction was continued for more than three consecutive days. Therefore, when the time for restricting sleep is prolonged, different skin care is needed because differences in the parameters that deteriorate the skin.

