Traits of Motor Functions of Obstructive Sleep Apnea Syndrome Patients Who Have Experienced a Fall

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Purpose: This study examines the factors leading to falling incidents in obstructive sleep apnea syndrome (OSAS) patients from the perspective of a motor function.

Methods: Subjects were 47 male OSAS patients (mean age: 55.2 ± 12.1 years, mean duration of therapy: 30.3 ± 18.5 months) undergoing nasal continuous positive airway pressure treatment. Subjects were checked for a falling incident in the past years, and the relationship between extraneous factors and motor functions was examined using binomial logistic regression analysis.

Results: The experience of a fall was found to have a significant relationship with knee extension strength (odds ratio: 0.862, 95% confidence interval: 0.775–0.958) and toe muscle strength (odds ratio: 0.164, 95% confidence interval: 0.164–0.896).

Conclusions: A decrease in knee extension strength and toe muscle strength was revealed to be responsible for falls in OSAS patients, indicating the importance of exercise-therapy interventions that aim at fall prevention.