Association between Very Early Initiation of Rehabilitation and Rehabilitation Provision System for Stroke Patients: Analysis According to Day of Admission

Daisuke MATSUMOTO, PT, MS
*Department of Physical Therapy, Faculty of Health Science, Kio University*

Katsunori KONDO, MD, PhD
*Center for Well-being and Society, Nihon Fukushi University*

Nariaki SHIRAISHI, PT, MS
*Department of Rehabilitation, Faculty of Health Sciences, Nihon Fukushi University*

Motoya SUGIYAMA, PT, MS
*Department of Rehabilitation, Chubu Rosai Hospital*

Seungwon JEONG, PhD
*Department of Social Science, National Center for Geriatrics and Gerontology*

**Purpose:** To investigate the association between very early initiation of rehabilitation (VEI) and a rehabilitation provision system for acute stroke patients by performing an analysis according to the day of admission.

**Methods:** Data of stroke patients (n = 2,307; 8 hospitals) from the Japan Rehabilitation Patients Database in Japan were examined. The patients were divided into the following five groups according to the day of admission: (1) weekday with no holidays (Monday to Thursday), (2) weekday with a holiday, (3) Friday, (4) Saturday and Sunday, and (5) holiday. We defined VEI as rehabilitation commencing within 3 days of stroke admission. Multiple logistic regression analysis was used to evaluate VEI, involvement of rehabilitation specialists as an attending doctor, and the ratio of rehabilitation staff members to beds.

**Results:** We found that VEI for acute stroke patients was significantly associated with involvement of a rehabilitation specialist and a high ratio of rehabilitation staff members to beds (p < 0.05).

**Conclusion:** Our results suggest that when providing VEI for acute stroke patients, it may be effective to promote the involvement of a rehabilitation specialist as an attending doctor, and increase the number of rehabilitation staff members.