

The Care Pattern and Effect of Home Physical Therapy in Individuals with Amyotrophic Lateral Sclerosis: A Preliminary Report

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Purpose: To develop the care pattern and to investigate the effect of home physical therapy on the functional ability and quality of life in individuals with amyotrophic lateral sclerosis (ALS). **Methods:** Subjects diagnosed as ALS and lived in Taipei and Keelung area were selected and classified as mild (ambulatory group) and moderate-severe (wheelchair group). This experiment used an A-B-A design with A-period as observation (1.5 months), B-period as treatment (1.5 months) and a second A-period as follow-up (1.5 months). Assessments included Amyotrophic Lateral Sclerosis Functional Rating Scale (ALSFRS), Barthel Index (BI), Postural Assessment Scale (PASS), and Quality of life (SF-36). Home physical therapy was performed once a week for 1.5 months and the treatment programs included thera-band low resistance exercise, leg paddling aerobic exercise and basic functional activity training. **Results:** (1)The mean age of ambulatory group (N=17) was 61.18 ± 12.91 years old (range: 34-81), and the duration of illness was 2.17 ± 2.24 years (range: 0.5-10.0). The mean age of wheelchair group (N=11) was 55.55 ± 12.13 years old (range: 30-73), and the duration of illness was 5.61 ± 6.96 years (range: 1.0-25). (2)The ALSFRS was significantly decreased during observation and follow-up periods ($p=0.036$ & 0.006 respectively); no significant change during treatment period ($p=0.27$). However, the wheelchair group did not show significant changes in observation, treatment and follow-up periods. (3)The BI and PASS were not significantly changed during observation period but was significantly decreased during follow-up in the ambulatory group. (4)The BI, PASS and SF36 in wheelchair group did not show significant change in all periods, but the person who could maintain the previous ability levels were increased. **Conclusions:** The home physical therapy once a week for 6 weeks could maintain or even refund the deterioration of the physical and mental function in some individuals with ALS. (FJPT 2004;29(6):384-396)

Key Words: Amyotrophic lateral sclerosis, Functional assessment, Postural control, Quality of life

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