The Effect of Exercise Therapy Combined with Environmental Manipulation on the Walking Function of Patients with Chronic Schizophrenia and Drug-induced Extrapyramidal Symptoms: A Randomized Crossover Comparative Study

Kimiyasu SHIKATA, PT, MS, Sinya OKAZAKI, MD, PhD  
Department of Rehabilitation, Uji Oubaku Hospital

Ryuichi YAMAMOTO, PhD  
School of Pharmaceutical Sciences, Kyusyu University of Health and Welfare

Tamotsu KIMURA, PT, MS  
Hanna Central College of Rehabilitation

Purpose: This study was designed to investigate the effects of exercise therapy combined with environmental manipulation on walking function in patients with chronic schizophrenia and drug-induced extrapyramidal symptoms.

Subjects: Eighteen patients with chronic schizophrenia complicated by drug-induced extrapyramidal symptoms who were hospitalized in the locked ward of psychiatric hospital C were investigated in this study.

Methods: This was a randomized crossover comparative study. Patients were randomly divided into group A (n = 10) and group B (n = 8). Both groups underwent the same exercise therapy for 4 weeks, following which the presence or absence of significant differences in walking function were determined. Subsequently, without a rest period, group A and group B began exercise therapy with and without environmental manipulation, respectively. Each group switched the exercise regimen after 4 weeks.

Results: Significant changes in walking function were observed after the environmental manipulation. In addition, the creation of a performance checklist was the most effective aspect of environmental manipulation.

Conclusion: The results of this study suggest that exercise therapy combined with environmental manipulation may be effective in improving the walking function of patients with chronic schizophrenia and drug-induced extrapyramidal symptoms.