Factors Influencing the Life Space in Patients with Severe Knee Osteoarthritis

Yoshinori HIYAMA, PT, MS, Daiki KAWAZOE, PT, Tatsuya UCHIYAMA, PT, Takeru YAGIHASHI, PT, Satoshi NAKAKITA, PT, Osamu WADA, PT, MS
Department of Rehabilitation, Anshin Hospital

Yoshinori HIYAMA, PT, MS
Graduate School of Human Development and Environment, Kobe University

Purpose: This study examined the factors influencing the life space in patients with severe knee osteoarthritis.

Methods: One hundred six patients with severe knee osteoarthritis participated in this study. Life space assessment (LSA), International Physical Activity Questionnaire Environmental Module (IPAQ-E), and visual analog scale measurement of confidence about going out were measured. In addition, range of motion of the knee, quadriceps strength, 10-m walking time, walking pain, and the Timed Up & Go test (TUG) were measured. To determine whether any of those factors could affect the life space, a step-wise regression analysis was performed with LSA as the dependent variable and age, confidence about going out, IPAQ-E, quadriceps strength, 10-m walking time, walking pain, TUG, gender, and employment status as independent variables.

Results: The multiple regression analysis demonstrated that TUG, confidence about going out, and “The sidewalks in my neighborhood are well maintained (paved, with few cracks) and not obstructed” were significant contributors to LSA.

Conclusions: The mobility capacity, confidence about going out, and condition of the sidewalks in the neighborhood affected LSA in patients with severe knee osteoarthritis. It is important to improve these factors to improve life space in patients with severe knee osteoarthritis.