References:

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INVESTIGATION OF THE EFFECTIVENESS OF TAI CHI EXERCISE PROGRAM ON CARDIOPULMONARY FUNCTIONS AND QUALITY OF LIFE IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: Systemic sclerosis (SSc) is an autoimmune disease that not only affects the skin but also causes symptoms that involve important internal organs such as joints, muscles, and heart and lungs. Due to all these multiple system involvements, the quality of life of individuals with scleroderma decreases. Tai Chi Chuan is a combination of physical exercise and relaxation techniques, and it is a traditional Chinese exercise method used to improve mental and physical health of people. There are many studies showing that Tai Chi improves the body’s aerobic capacity and psychological well-being. In the literature, Tai Chi has been shown to reduce pain, improve physical function, improve healing effects on depression and quality of life, especially, in the elderly, individuals with musculoskeletal diseases such as rheumatoid arthritis and osteoarthritis, and improve cardiac vascular risk factors such as hypertension and diabetes.

Objectives: The aim of the study is to examine the effectiveness of Tai Chi on cardiopulmonary functions and quality of life in patients with SSc.

Methods: 28 SSc patients (25 females, 3 males) with an average age of 53.00 ± 10.00 were included in the study. For training, patients were divided into two groups by block randomization method. Group 1 received 60 minutes of Tai Chi exercise program and Group 2 received 60 minutes of home exercise for 2 days a week for 8 weeks. 6-min walk test (6MWT) and St. George Respiratory Questionnaire (SGRQ) were used to evaluate the cardiopulmonary functions, Short form 36 (SF-36) was used to evaluate the quality of life. All evaluations were performed at baseline and at the end of the 8th week.

Results: When the groups were compared before training, there was no significant difference (p>0.05). In post-training comparisons, there was a significant difference in all parameters in Tai Chi group (p<0.001-0.045); there was a significant difference in the physical function sub-parameter of SF-36 and 6MWT in the home exercise group (p<0.045, p<0.038, respectively). Comparing the post-training groups, Tai Chi group was found to be superior in terms of all parameters compared to the home exercise group (p=0.00-0.04). No side effects were observed during the exercises.

Conclusion: As a result of our study; Tai Chi has a positive effect on cardiopulmonary function and quality of life in patients with SSc. Tai Chi should be included in rehabilitation programs as a safe alternative type of exercise to improve cardiopulmonary function and quality of life in patients with SSc.