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Title: Effects of Yoga and aerobic exercise training on functional capacity, respiratory muscle strength, and quality of life in breast cancer survivors

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Body: Aim: The aim of this study was to compare the effects of aerobic exercise training and yoga program on functional capacity, respiratory muscle strength, and quality of life in breast cancer survivors. Methods: Forty patients with breast cancer were included. Patients were randomly assigned into two groups. Aerobic exercise training was given to both groups for 30 min per day, 3 days per week for 6 weeks. In another group, one hour yoga program was applied besides aerobic exercise training. Pulmonary function test and six-minute walk test (6MWT) were performed. Respiratory muscle strength (MIP and MEP) was measured. Quality of life was assessed using the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QOL-C30). Results: The 6MWT distance and quality of life were significantly increased in both groups ($p<0.05$). A 94 m increase was found in 6MWT distance in aerobic exercise plus yoga group, whereas there was a 69 m increase in aerobic exercise group. After the training, differences in MIP (10.6 ± 4.5 vs. 6.1 ± 5.3 cmH₂O) and MEP (13.3 ± 7.6 vs. 7.3 ± 4.3 cmH₂O) in aerobic exercise plus yoga group significantly higher as compared with aerobic exercise group ($p<0.05$). In yoga plus aerobic exercise group, overall well-being, role function, emotional function, and social function scores of EORTC QOL-C30 were significantly better than those of aerobic exercise group after the training ($p<0.05$). Conclusion: Aerobic exercise programs can be supported by body mind techniques such as yoga to improve functional recovery, muscle strength and psychosocial wellness in the rehabilitation of cancer patients.