



Full Article (link to full text):

https://journals-lww-com.ezp.slu.edu/acsm-csmr/Fulltext/2019/12000/The_Effects_of_Concurrent_Resistance_and_Aerobic.9.aspx#

Study Design: Pilot Randomized Controlled Trial

Abstract:

Loss of balance and walking ability are two of the primary impairments in multiple sclerosis (MS), which leads to loss of autonomy, increased fatigue perception, and disease severity in patients. Physical activity has been shown to ameliorate MS functional impairments, but there is limited evidence of synergistic efficacy of exercise training interventions that have both a resistance and aerobic focus in these patients. We evaluated the effect of a 12-wk combined training intervention (resistance and aerobic exercise) on balance, walking ability, fatigue perception, quality of life, and severity of disease in patients with MS. The combined training was well tolerated by the patients and improved the quality of life of the patients as also reflected in the improvement in walking and balance ability as well as reduced depression, fatigue, and severity of disease. The results of this study confirm the beneficial effects of physical activity in patients with MS and support the use of a combination of resistance and aerobic exercise training to achieve functional and psychological therapeutic outcomes.

Key Findings:

Combined aerobic and resistance training (CT) resulted in improved balance and ambulation ability in patients with MS. Other improvements included reduction in fatigue, depression, and severity of disease. Both combined therapy and conventional physical therapy resulted in improved physical portions of the Multiple Sclerosis Quality of Life questionnaire, with the CT group also having significant improvement in the mental health composite score and with depressive symptoms. Results of the Fatigue Severity Scale significantly improved with both groups as well.

Reviewer Summary: Combined aerobic and resistance training should be considered as an exercise option for improving physical and psychological outcomes in patients with MS. This study reinforced previous scientific research supporting the use of exercise for improving ambulation and balance ability in patients with MS as well as introduced the concept of incorporating aerobic training with this population. Preliminary results appear to demonstrate value in combined aerobic and resistance training with this population; however additional research is required to further support these findings.