Effects of 8-week home-based yoga and resistance training on muscle strength, functional capacity and balance in patients with Multiple Sclerosis

Mostafa Azimi[1], Seyedeh Shelir Hosseini[2], Maryam Abolhasani[3]

1. Sports Medicine Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran

2. Master in Exercise Physiology,Kharazmi University,Faculty of Physical Education & Sport Sciences,Karaj, Iran.

3.1) Assistant professor of Sports and Exercise Medicine, MS Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran.

3.2) Assistant professor of Sports and Exercise Medicine, Sports Medicine Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran

Introduction

Muscle weakness, fatigue and balance disturbances contribute to the reduction of daily activity in multiple sclerosis (MS) patients.

Therapeutic strategies to promote improvements in muscle strength , functional capacity and balance are limited in individuals with MS. Yoga training (YT) is a most popular mind-body interventions and has been known to positively affect physical , mental and other symptoms of multiple sclerosis patients with moderate disability and other cases.

Material and Method

This study was designed to determine effect of 8-week home---based yoga (YT) and resistance training (RT) on muscle strength, functional capacity and balance in 26 patients with multiple sclerosis (MS) with mild to moderate disability .

26 male and female patients (Age: 31.3±9.0749) with mild to moderate disability, were recruited and randomized into three groups randomly: Yoga training(n=9) with three-times weekly home based Hatha Yoga training for eight weeks, Resistance training (n=9) with three-times weekly home based resistance training program for eight weeks and control groups(n=8)

Results

The data analyzed using one way ANOVA showed; however, that Yoga Training (YT) had no significant effect on leg muscle strength, but home Resistance Training (RT) increased it. Also, functional capacity was not affected by any YT and RT, but the balance changed.

Conclusion

It seems that prescribing regular training programs with controlled intensity and time, particularly Resistance Training (RT) and Yoga Training (YT) can have a positive impact on the performance and improvement of MS patients' quality of life

Keywords

Resistance training, Functional capacity, Multiple sclerosis