

IS THERE AN IMPACT OF RESISTANCE TRAINING ON THE PHYSICAL CONDITION OF INDIVIDUALS WITH MULTIPLE SCLEROSIS ?

Hasnaa Boutalja, Nada Kyal, Ryme El Beloui, Fatima Lmidmani, Abdellatif Elfatimi

Department of Physical and Rehabilitation Medicine - University hospital of IBN ROCHD, Morocco
e-mail: bhasnaa25@gmail.com

Background and Aims

The progression of physical disability due to multiple sclerosis (MS) leads to various consequences, including greater mobility loss and diminished quality of life. This study investigated the impact of resistance training on the functional capacity of individuals with MS.

Methods

Participants were intentionally grouped based on the Expanded Disability Status Scale (EDSS). The experimental group (EG) consisted of eight individuals, with 10.8% scoring 0-3.0, 83.1% scoring 3.5-5.5, and 6.1% scoring 6.0-7.5 on the EDSS. The control group (CG) also included eight participants, with 22.4% having a score of 0-3.0, 65.8% scoring 3.5-5.5, and 11.8% scoring 6.0-7.5. The EG completed a 12-week resistance training program, while the CG did not receive intervention. The Timed "Up & Go" test was used to evaluate lower limb function, while the Timed 7.62 Meters Walk test and the Sit-to-Stand test assessed lower limb strength. Balance and fall risk were measured using the Berg Balance Test.

Results

At baseline, lower limb function was comparable between the experimental group (EG) and the control group (CG). However, following 12 weeks of resistance training, significant differences emerged between the two groups in the Timed "Up and Go" test ($P=0.022$), Timed 7.62 Meters Walk ($P=0.028$), Sit-to-Stand test ($P=0.018$), and Balance test ($P=0.038$).

Conclusion

The findings of this study suggest that this form of training enhances muscle strength and functional capacity in individuals with multiple sclerosis.

Keywords: Multiple sclerosis, Exercise, Resistance training