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Effect of moderate physical activity on reduce of blood pressure in hypertensive patients

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The purpose of this study was to measure the effects of moderate physical activity (60% of Maximal Heart Rate, MHR) on the reduction of blood pressure in elderly people with hypertension. Hypertension is considered a modifiable risk factor for cardiovascular disease through physical activity. The purpose and significance of this study, was to investigate the role of exercise as an alternative therapy, since some patients exhibit sensitivity/intolerance to some drugs. Initially, 30 hypertensive males (average age=46.7 years) were selected (systolic blood pressure, SBP>140 mmHg and/or diastolic blood pressure, DBP>90mmHg). The subjects were divided based on their age, duration of disease, physical activity and drug consumption. Then, blood pressure and Heart Rate (HR) were measured in all of the patients using sphygmomanometer (pre-test). The exercise session was consisted of warm up, aerobic activity and cool down (total duration 45 minutes). At end of the session, blood pressure measured for the second time (post-test). The results were analyzed using t-test. Our results indicated that moderate physical activity was effective in lowering blood pressure by 7.16 mmHg for SBP and 4.93 mmHg for DBP in hypertensive patients, irrespective of age, duration of disease, physical activity and drug consumption ($p<0.05$). Physical activity programs with moderate intensity (approximately at 60% MHR), four days per week can be used not only as a preventive measure for diastolic hypertension (DBP>90 mmHg high blood pressure), but as an alternative to drug therapy in the treatment of hypertension, as well. Aerobic exercise is able to produce reductions in hypertensive patients. Recent findings suggest that a modification of dietary and fitness habits are helpful in the prevention or the control of high blood pressure. Previous studies showed that patients with hypertension managed to reduce their blood pressure by about 6-10 mmHg through physical activity. These results are similar to the reductions achieved in the current study. Applications of this study are simple and useful for prevention and treatment of hypertension.

Biography

Simin Jafari has completed her PhD in Sports Psychology from Imam Reza International University, Iran. She is currently working as a Sports Psychologist of Iran's Youth Rowing Team, Iran and also Instructor at Faculty of Physical Education and Sport Sciences, Islamic Azad University, Iran.