



CONFERENCE ABSTRACT

Effect of twelve week training program in blood pressure and heart rate at rest in older hypertensive and normotensive women

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Abstract

Introduction: Epidemiological studies suggest that non-pharmacological interventions such as exercise may be beneficial for treatment of hypertension. However the potential benefits of exercises especially resistance training on arterial blood pressure and resting heart rate in older adults without hypertension remain controversial. **Objective:** To analyze the effect of twelve weeks of training program on systolic blood pressure (SBP) diastolic blood pressure (DBP) mean arterial pressure (MAP) and heart rate (HR) in older women with and without hypertension. **Methods:** Seventeen hypertensive women (HW) and 10 normotensive women (NW) were included in training program selected by pre-exercise evaluation of the cardiovascular status and other risks factors (smoking dislipidemia and diabetes). Training program three times per week was consisted from 10 minutes of stretching exercises; 45 minutes of aerobic endurance (gait) and 10 min with five minutes of relaxation while two times per week were included dynamic resistance exercises (involving the major muscle groups) The training sessions of resistance exercises were performed in three sets of 8 to 10 repetition of maximum (RM) with rest interval between sets and exercises of 90 seconds. These days aerobic exercises last only 30 minutes. Hemodynamic parameters at rest were evaluated by auscultatory method (mercury sphygmomanometer) and HR by Pulsioxymeter monitor (Polar) before and after twelve weeks of experimental period. **Results:** The HW group (age 66.8 5.4 ± 1 years) and the NW (65.2 4.8 ± 1 years). In HW was found a reduction of SBP (-10.6 mmHg $p < 0.01$) and DBP (-1.94 $p = 0.043$). Although significant reduction were observed in SBP (-6.7 mmHg $p < 0.05$) of NW group there were no significant reduce in DBP after exercises ($p = 0.032$). Mean arterial pressure (MAP) and resting HR also didn't show important changes. **Conclusion:** Twelve weeks training program consisted of aerobic exercises and dynamic resistance exercises is shown to be an effective training in reduction of resting SBP in older women with hypertension and also to promote adaptations in the cardiovascular system of normotensive older women without. **Keywords:** older women blood pressure hypertension normotension heart rate exercise.

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