HIGH INTENSITY AEROBIC EXERCISE TRAINING INDUCES SIMILAR OR EVEN SUPERIOR BLOOD PRESSURE REDUCING EFFECTS IN CONTROLLED HYPERTENSIVE PATIENTS

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BACKGROUND
Aerobic exercise training is currently used in the nonpharmacologic management of hypertension, however there is controversy on the optimal training intensity that should be recommended.

OBJECTIVE
To compare the effects two exercise training intensities on 24 hour blood pressure monitoring in patients with well controlled hypertension.

METHODS
Thirty two previously sedentary, controlled hypertensive patients (mean ± SD age 48 ± 9 years) were randomly assigned to participate in one of the following 8 week programs: moderate intensity (MIT) aerobic exercise training, at 60-65 % of heart rate reserve, 40 min per session, 3 sessions per week (n = 12); high intensity aerobic exercise training (HIT), at 80-85 % of heart rate reserve, with the duration adjusted to achieve the same energy expenditure of MIT (n = 12); and a control group (CG) that did not exercise (n = 10). Before and after intervention, 24 hour blood pressure monitoring was performed.

RESULTS

**Table 2: SBP and DBP during sleep before and after intervention.**

*significant difference (p<0.05) compared to pretest; # significant difference (p<0.05) between CG and HIT in the post-test.

**Table 3: SBP load and DBP load during sleep before and after intervention.**

*significant difference (p<0.05) compared to pretest; # significant difference (p<0.05) between CG and HIT in the post-test; Ŧ significant difference (p<0.05) between MIT and HIT in the posttest.

CONCLUSION
HIT may have similar or even superior blood pressure reducing effects compared to those of MIT in well treated patients with hypertension. Since these effects are obtained using shorter exercise sessions, HIT may be considered as an efficient alternative to MIT.