The beneficial effect of regular endurance exercise training on blood pressure and quality of life in patients with hypertension

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摘要

Abstract

Regular aerobic exercise can reduce blood pressure and is recommended as part of the lifestyle modification to reduce high blood pressure and cardiovascular risk. Hypertension itself, or/and pharmacological treatment for hypertension is associated with adverse effects on some aspects of quality of life. This study was performed to evaluate the effects of regular endurance exercise training on quality of life and blood pressure. Patients with mild to moderate hypertension (systolic blood pressure 140-180 or diastolic blood pressure 90-110 mm Hg) were randomized to a moderate-intensity aerobic exercise group training for 3 sessions/week over 10 weeks or to a non-exercising control group. Health-related quality of life was assessed with the Short Form 36-item Health Survey (SF-36) at baseline and after 6 and 10 weeks. In the 102 subjects (47 male, mean age 47 years) who completed the study, reductions in blood pressure in the exercise group at 10 weeks (-13.1/-6.3 mm Hg) were significant ($P < 0.001$) compared to baseline and to the control group (-1.5/+6.0 mm Hg). Unlike the control group, the exercise group showed an increase in exercise capacity from 8.2 ± 1.6 to 10.8 ± 2.2 METS ($P < 0.01$) and showed higher scores on 7 out of 8 subscales ($P < 0.05$) of the SF-36. Improvement in bodily pain and general health sub-scores correlated with reduction in systolic blood pressure. Regular endurance training improves both blood pressure and quality of life in hypertensive patients and should be encouraged more widely.