The beneficial effects of Tai Chi Chuan on blood pressure and lipid profile and anxiety status in a randomized controlled trial

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摘要

Abstract

To evaluate the effects on blood pressure, lipid profile, and anxiety status on subjects received a 12-week Tai Chi Chuan exercise program. DESIGN: Randomized controlled study of a Tai Chi Chuan group and a group of sedentary life controls. SETTING: Taipei Medical University Hospitals and University campus in the Taipei, Taiwan, area. SUBJECTS: Two (2) selected groups of 76 healthy subjects with blood pressure at high-normal or stage I hypertension. INTERVENTION: A 12-week Tai Chi Chuan exercise training program was practiced regularly with a frequency of 3 times per week. Each session included 10-minute warm-up, 30-minute Tai Chi exercise, 10-minute cool-down. Exercise intensity was estimated to be approximately 64% of maximal heart rate. OUTCOME MEASURES: Blood pressure, lipid profile and anxiety status (State-Trait Anxiety Inventory; STAI) were evaluated. RESULTS: After 12-weeks of Tai Chi training, the treatment group showed significant decrease in systolic blood pressure of 15.6 mm Hg and diastolic blood pressure 8.8 mm Hg. The serum total cholesterol level decreased 15.2 mg/dL and high-density lipoprotein cholesterol increased 4.7 mg/dL. By using STAI evaluation, both trait anxiety and state anxiety were decreased. CONCLUSIONS: This study shows that under well-designed conditions, Tai Chi exercise training could decrease blood pressure and results in favorable lipid profile changes and improve subjects' anxiety status. Therefore, Tai Chi could be used as an alternative modality in treating patients with mild hypertension, with a promising economic effect.