Objective: Recently several clinical studies have also shown that lipid-lowering drugs may exert a favorable effect on blood pressure. But to our knowledge there are no data showing the effect of lipid-lowering in China. **Methods:** A cluster randomized, blind design was conducted from June 2006 to August 2007. Participants were randomized to antihypertensive treatment with or without the addition of lipid-lowering treatment (Xuezhikang capsule). The antihypertensive treatment regimen consisted of a titration to target blood pressure (systolic BP <140 mm Hg and diastolic BP <90 mm Hg). After a 14 months' follow-up, 2427 subjects (antihypertensive therapy group 1396 and antihypertensive combined lipid-lowering group 1031) were included in analysis. The χ^2 tests and t tests were used to detect the differences of hypertension control rate and the decline of BP between treatment arms. **Results:** Systolic BP dropped 25.8 mm Hg from baseline by the antihypertensive treatment, whereas, 28.5 mm Hg by the combined treatment at the end of follow-up. In contrast, combined therapy had an average systolic BP 2.7 mm Hg lower than antihypertensive therapy ($P<0.01$). However, the effect was not happen on diastolic BP. Compared with antihypertensive treatment, using combined treatment made systolic BP significantly dropped in the low levels of low density lipoprotein (LDL) cholesterol group (2.8 mm Hg, $P<0.01$), low total cholesterol group (3.0 mm Hg, $P<0.01$), and two high density lipoprotein (HDL) cholesterol groups, especially in low HDL-cholesterol group (6.6 mm Hg vs 2.3 mm Hg, $P=0.04$). In contrast to systolic BP, however, diastolic BP reductions were not focused in any cholesterol subgroup. **Conclusions:** Relative to antihypertensive therapy alone, a significant reduction in systolic BP due to antihypertensive combined lipid-lowering therapy. Analysis in subgroup showed that BP dropped more in low LDL-cholesterol group, low total cholesterol group, and low HDL-cholesterol group.

doi:10.1016/j.ijcard.2011.08.544

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Relationship between integrative antihypertensive treatment and arterial elasticity in middle-aged and old patients with essential hypertension

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Objectives: To understand the influence of integrative therapy on arterial elasticity treatment by combined different antihypertensive medicine until controlling blood pressure (BP) to target in middle-aged and old patients with essential hypertension. **Methods:** The patients (n = 156) were divided into two groups randomly, one group accepted integrative treatment of calcium channel blockers (CCB) + angiotensin-converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB), the another group accepted CCB + diuretic (D) after medicinal elution for 5 to 7 days. After 4 weeks routine-dose treatment, if BP was not reduced to target BP, low-dose beta-blocker (β-B) was given to the patients until their BP reached target. The BP, heart rate (HR), large arterial capacitive index (C1) and small arterial oscillatory index (C2) in the patients were detected before and 1 year after treatment. The changes of BP, HR, C1 and C2 were compared between two groups. The changes of arterial elasticity induced by external factors and aging were excluded taken C1 and C2 changes as control in 36 middle-aged and old health cases around 1 year. **Results:** (1) In all treatment groups, systolic BP (SBP), diastolic BP (DBP) and pulse pressure (PP) decreased significantly and the difference was statistically significant (all $P<0.01$). (2) In CCB + ACEI/ARB + β-B (C + A + B) group and CCB + D + β-B (C + D + B) group, HR decreased significantly with statistical difference (all $P<0.01$), and in CCB + ACEI/ARB (C + A) group HR decreased with statistical difference ($P<0.05$). (3) C1 was reduced with statistical difference ($P<0.05$) in C + A group, and C2 increased with statistical difference ($P<0.05$) in C + A + B group and C + D + B group. (4) All indexes including BP, HR, C1 and C2 had no changes ($P>0.05$) in healthy control group around 1 year. **Conclusions:** With similar reduction effect on BP, the arterial elasticity was not improved after C + A and C + D combination therapy, but could be improved after C + A + B and C + D + B combination therapy. It is benefitial that β-B in low dose combined with other common antihypertensive medicine was used for improving arterial elasticity in middle-aged and old patients with EH.

doi:10.1016/j.ijcard.2011.08.545

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Perindopril/indapamide fixed dose combination blood pressure lowering efficacy in uncontrolled hypertensive patients: Results of a Thai hypertensive cohort

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Objectives: To assess the blood pressure (BP)-lowering efficacy of perindopril/indapamide fixed dose combination (P/I FDC) in Thai hypertensive patients with co-morbidity and risk factor as mono-therapy and combination treatment in uncontrolled hypertensive patients. **Methods:** This is an open-label, multicenter, observational trial conducted in hypertension clinics. Patients (n = 1364; age: 61.5 ± 11.1 years) with uncontrolled hypertension (i.e. seated BP ≥ 140/90 mm Hg or ≥ 130/80 mm Hg in the presence of T2DM and dyslipidemia) were prescribed P/I FDC (perindopril 4 mg/indapamide 1.25 mg/day). Newly diagnosed hypertensive patients were initiated with P/I FDC whereas patients who were previously received ACE inhibitors (ACEIs) or angiotensin-receptor blockers (ARBs) were switched to P/I FDC. At visit 2 (after 1 month), other antihypertensive agents were added in cases of failure to achieve BP control. Follow-up was over 3 months. **Results:** After 3 months, SBP/DBP (mean ± SD) of patients with P/I FDC-based treatment was 131.6 ± 9.6/78.7 ± 7.1 mm Hg. Among 46% of patients whom BP not controlled by ACEIs or ARBs, switching to P/I FDC resulted in further BP reduction, only 9.6 % of patients required addition of other antihypertensive agents. Adding calcium channel blockers or beta-blockers to P/I FDC in uncontrolled hypertensive patients reduced SBP/DBP by 31.6/13.1 mm Hg and 28.8/6.1 mm Hg, respectively. P/I FDC mono-therapy or combination reduced SBP/DBP by 33.9/16.0 mm Hg, 30.7/12.8 mm Hg and 23.5/11.0 mm Hg respectively in newly diagnosed stage 2 hypertensive patients, in hypertensive patients with dyslipidemia and in T2DM patients over 3 months. Perindopril/indapamide fixed dose combination was well tolerated by Thai patients. The reporting cough incidence was low only 5.1% in this short-term evaluation. **Conclusions:** Perindopril/indapamide fixed dose combination as monotherapy or combination is a clinically beneficial antihypertensive agent. It is well tolerated by Thai hypertensive patients. These results suggest that perindopril/indapamide fixed dose combination is a clinically useful first-line antihypertensive agent.

doi:10.1016/j.ijcard.2011.08.546