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The effect of lifestyle change in blood pressure control among hypertensive patients

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Background: Hypertension is one of the most prevalent conditions among patients who visit primary care clinic. Various factors are associated with effective blood pressure control including sex, age, education, income, marital status, obesity, alcohol consumption, regular blood pressure check and so on. The objective of this study is to identify factors and lifestyle modification associated with blood pressure control among patients who were prescribed hypertension medication at primary care clinic.
Method: This survey was conducted at 15 family medicine outpatient clinic in hospitals located at South Korea from July 2008 to June 2010. We prospectively recruited and retrospectively assessed 1,453 patients with hypertension who were prescribed candesaltan. Initial evaluation about patients' lifestyle including smoking, alcohol consumption, salt intake and physical activity were made by individual questions followed by same survey questionnaires at 12 weeks follow up visit. We defined successful blood pressure control as less than 140 mmHg systolic and 90 mmHg diastolic at 12 weeks from the initial treatment.
Result: of the 1,453 patients, 1,139 with available measurement of initial and final blood pressure were included. in univariate analysis of change in performance index, BMI(OR 2.18(1.52-3.11), P< .001), physical activity(OR 0.50(0.30-0.85), P=0.011) and salt intake(OR 0.68(0.48-0.97), P=0.034) were related with effective blood pressure control. in addition, three questions on salt usage behaviors showed significant association. Multivariate odds ratios were calculated by adjusting age, sex, BMI, education, income, alcohol, smoking, habit of salt intake, comorbidity and family. in multivariate analysis, sex (OR 3.55(2.02-6.26), P< .001), habit of salt intake(OR 0.64(0.43-0.97), P=0.034) and comorbidity(OR 1.82(1.23-2.69), P=0.003) were associated with successful blood pressure control.
Conclusion: in this study, increased physical activity and reduced salt intake showed significant positive effect on the management of hypertension.