

Parameters of metabolic syndrome in prehypertensive subjects. Should we be looking for them?

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◆ Introduction

Insulin resistance has been found to be higher in hypertensive subjects. Whether this is also true in prehypertension is controversial. We examined both insulin resistance and lipidemic profile in subjects with prehypertension.

◆ Methods

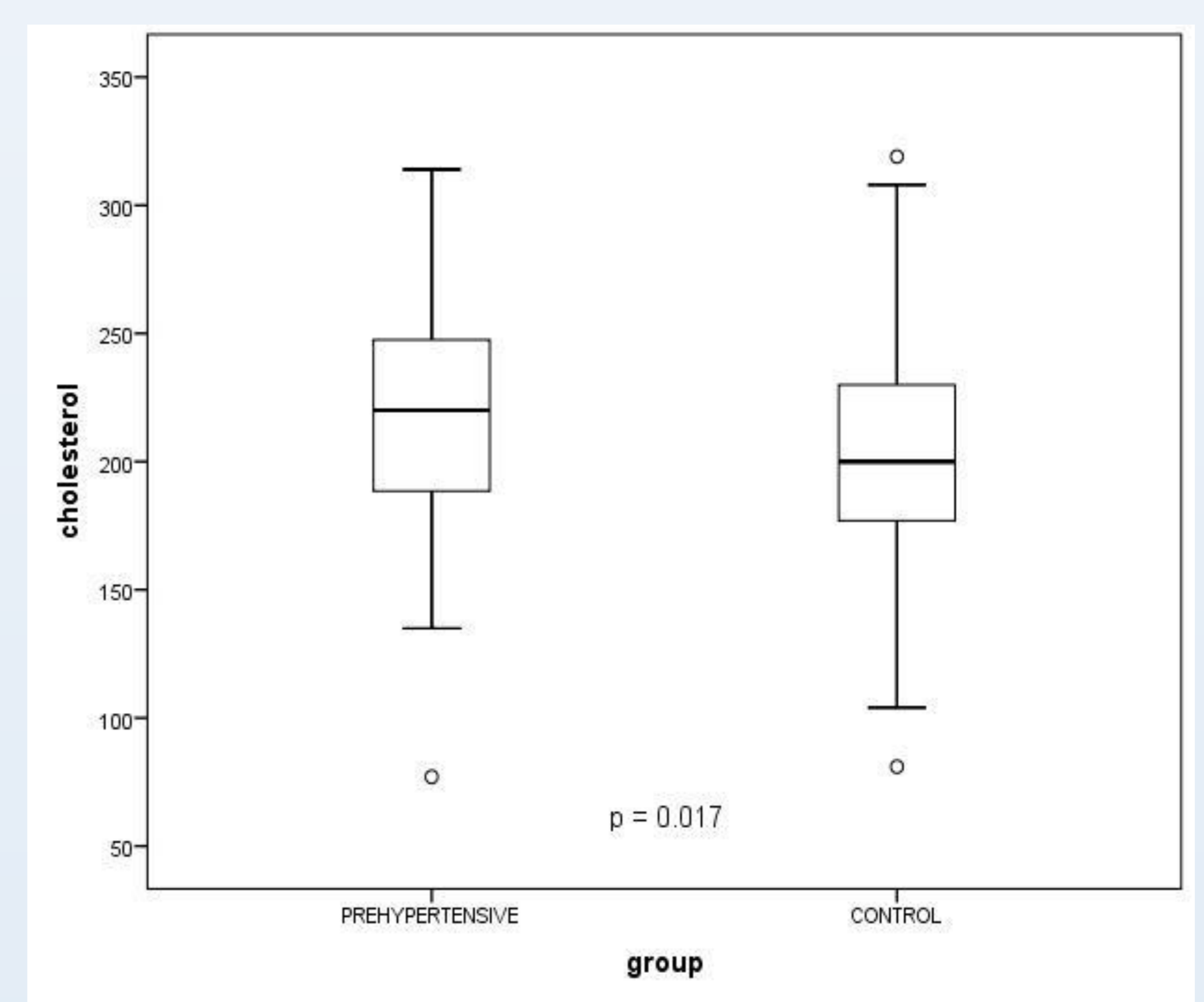
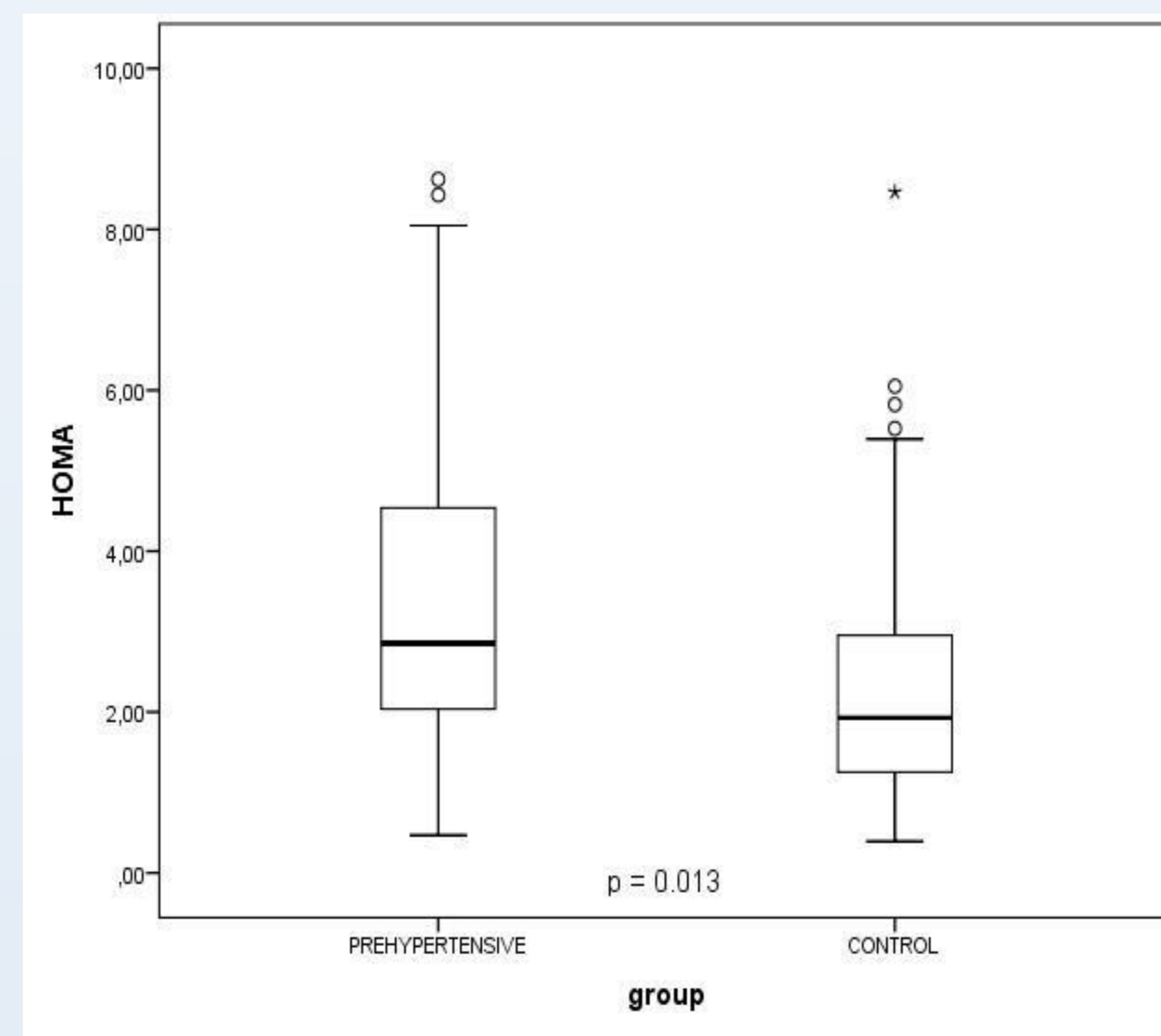
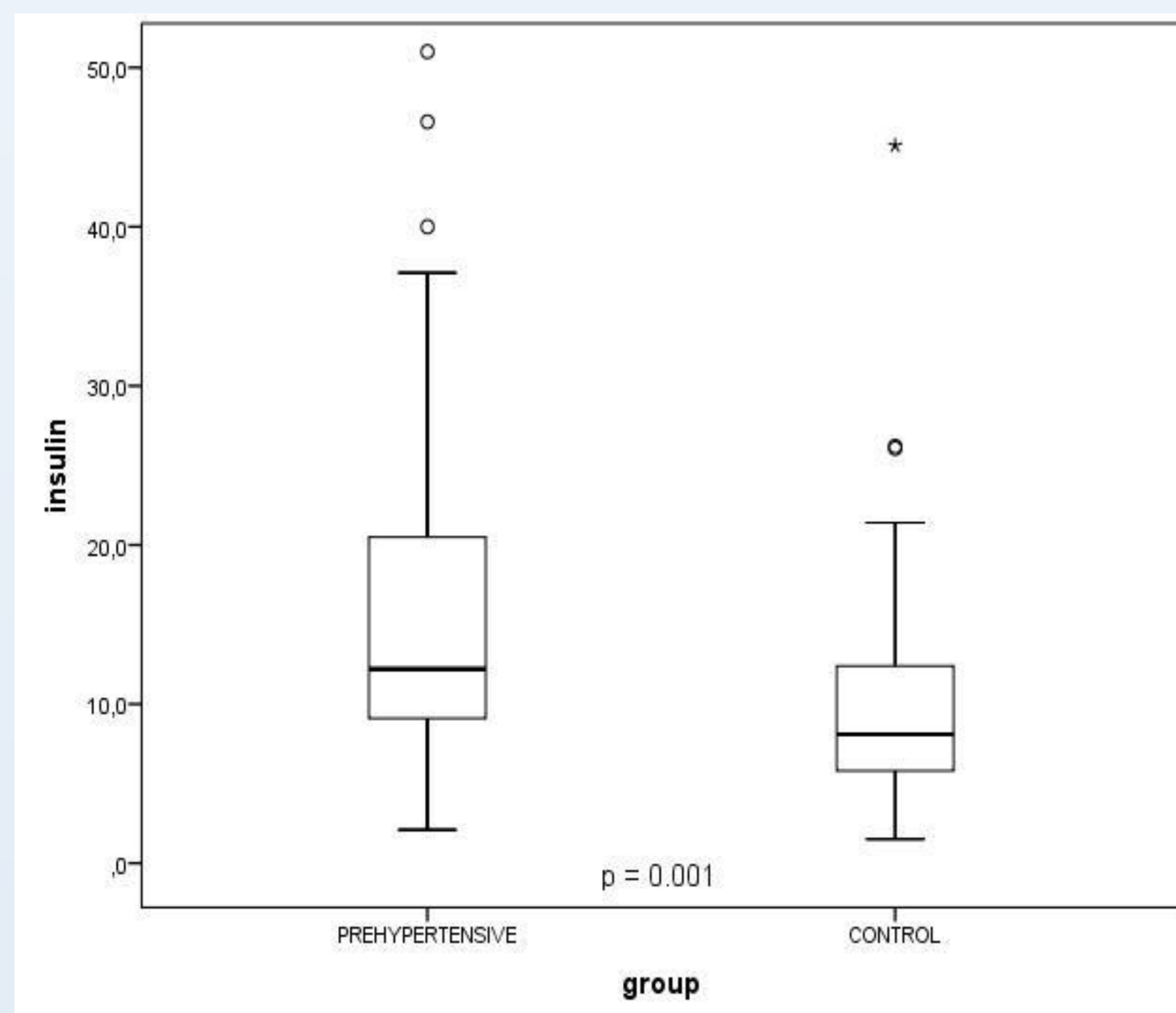
214 outpatients (119 men and 97 women) of Greek origin were divided into 2 groups: a) prehypertensive and b) control group. These groups were tested for insulin resistance using the HOMA index, as well as lipids values. All participants were matched for age and BMI. Prehypertension is defined as BP=120-139/80-89 mmHg and normal BP< 120/80 mmHg. Ambulatory blood pressure were measured in both groups. Categorical and numeric values were analyzed with x2 and t-test or Mann-Whitney test were appropriate.

◆ Results

HOMA index was higher in the prehypertensive versus the control group ($p = 0.013$), and similar results were shown for the measurement of insulin ($p = 0.001$). Additionally, a statistically significant difference was found between the control versus the prehypertensive group for cholesterol ($p = 0.017$) and triglycerides ($p = 0.003$). No significant differences were found for all the other parameters.

◆ Conclusion

Our study revealed a significantly higher Insulin resistance, total cholesterol and triglyceride the prehypertensives. These are parameters of the metabolic syndrome, which is associated with the high cardiovascular risk. Thus, measuring these factors might be useful people with non-optimal values of BP.



	Prehypertensive n = 106		Control n = 108		Significance
	Mean	Std Deviation	Mean	Std Deviation	
Age	48,40	13,743	46,74	15,153	0.211
Glucose	96,05	11,298	93,20	20,422	0.238
Insulin	15,45	9,507	10,58	10,785	0.001
HOMA	2,88	2,585	2,16	1,489	0.013
BMI	28,48	4,464	27,53	5,297	0.284
Cholesterol	217,62	43,973	201,90	46,433	0.017
Triglycerides	129,30	56,464	102,38	50,090	0.003
HDL	48,09	13,482	46,02	13,272	0.290
LDL	129,92	56,464	122,09	45,053	0.324

