

METABOLIC SYNDROME AND HIGHSENSITIVE C-REACTIVE PROTEIN IN YOUNG HYPERTENSIVE AND PREHYPERTENSIVE ADULTS

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ABSTRACT

Hypertension and prehypertension are reversible risk factors for coronary artery disease (CAD). However, CAD risk is usually inadequately assessed in young adults and underestimated. This study aimed to investigate metabolic syndrome criteria including high-sensitive C-reactive protein (hs-CRP) in young hypertensive and prehypertensive adults. This was a cross-sectional study involving 120 male young adults aged < 45 years old; 40 subjects in control, prehypertensive and hypertensive group respectively. CAD risk factors; body mass index (BMI), waist circumference, lipid profiles, fasting blood glucose and hs-CRP levels were assessed in all subjects. Obesity and hypercholesterolemia were most prevalent in hypertensive, followed by prehypertensive and control group. Mean waist circumference was significantly higher in hypertension than the control (98.3±13.1 vs. 87.0±8.4 cm, p=0.018). Median hs-CRP was significantly higher in hypertension and prehypertension than the control (2.7 vs. 2.2±3.8 vs. 1.1±1.7 p<0.001). The high prevalence of metabolic syndrome and elevation of hs-CRP in young adults with hypertension and prehypertension indicate the increase risk of CAD among these cohorts. Hence, apart from management of high blood pressure, holistic risk modifications strategies such as weight loss, low cholesterol diet and physical exercise are essential to prevent premature CAD.

Keywords: hypertension, prehypertension, young adults, metabolic syndrome

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