PREVALENT COMPONENTS OF CARDIOMETABOLIC SYNDROME AND CARDIOVASCULAR DISEASE FROM THE KIDNEY EARLY EVALUATION PROGRAM (KEEP)

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The cardio-metabolic syndrome (C-MS) has been associated with cardiovascular disease (CVD) and chronic kidney disease (CKD) risk. Using data from the KEEP, we sought to test this association in a targeted CKD screening population. Subjects eligible included those ages ≥ 18 with either a history of diabetes or hypertension, or a family history of CKD, diabetes or hypertension. Patients were excluded if they were on renal replacement therapy or had a history of renal transplant. Multivariate odds ratios (OR) were calculated to evaluate the risk of prevalent CKD and CVD with increasing number of components of the C-MS: impaired glucose tolerance, HTN, dyslipidemia, obesity, and microalbuminuria. CKD was defined as an eGFR <60 ml/min/1.73m^2. After adjustments for age, race, sex, level of education, tobacco, and alcohol use; having three, four, or five components of the C-MS were associated with a graded increased risk of prevalent CKD (OR and 95% CI: 1.36 [1.04-1.78], 1.47 [1.10-1.96], 2.08 [1.38-3.13], respectively) and four or five components of the C-MS was associated with increased risk of prevalent CVD (OR and 95% CI: 1.92 [1.01-3.67] and 2.25 [1.02-4.95], respectively). The risk of prevalent CVD with four or five components increased with declining renal function. Using forward selection analyses, impaired glucose tolerance was found to be the most important risk factor for prevalent CKD, followed by HTN, dyslipidemia, microalbuminuria, and obesity, respectively. The C-MS is associated with an increased risk for prevalent CVD and CKD in a targeted population at high risk for CKD.