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ASSOCIATION BETWEEN METABOLIC SYNDROME AND CHRONIC KIDNEY DISEASE AMONG 10657 CHINESE ADULTS IN PUDONG NEW AREA, SHANGHAI

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Few population-based studies have examined the association between metabolic syndrome (MS) and chronic kidney disease (CKD) in China. 10,657 Chinese adults aged 18-95 years were selected from Pudong New Area of Shanghai through a multistage random sampling and interviewed. Demographic and lifestyle characteristics, anthropometry and blood pressure were measured. Biochemical assays included fasting plasma glucose, serum creatinine, lipids, urinary creatinine and albumin. The prevalence of albuminuria [urine albumin-to-creatinine ratio (ACR) ≥ 30 mg/g], decreased kidney function and CKD (either decreased kidney function or albuminuria) among MS and non-MS population were estimated. Based on WHO definition and MDRD(Modification of Diet in Renal Disease) study equation, the overall prevalence of MS and CKD were 18.2% (age standardized 15.7%) and 19.9% (age standardized 15.2%). The prevalence of microalbuminuria, macroalbuminuria, decreased kidney function and CKD in subjects with MS were 22.2%, 3.0%, 3.8% and 26.8%, higher than those without (8.6%,0.5%,1.0% and 9.5%, P < 0.001). Regard of the components of MS, the adjusted odds of BMI ≥ 25.0, dysglycemia, hypertension and dyslipidemia were 1.36(95% confidence interval [CI]: 1.14-1.62), 2.40(95% CI: 1.99-2.89), 1.67(95% CI: 1.38-2.01) and 1.29(95% CI: 1.08-1.54) for albuminuria, while 1.45(95% CI: 1.22-1.72), 2.24(95% CI: 1.86-2.68), 1.67(95% CI: 1.39-2.00) and 1.25(95% CI: 1.05-1.49) for CKD, respectively. The risk of CKD increased with increasing number of MS components. MS was independently associated with the increased prevalence of albuminuria, decreased kidney function and CKD among population in Pudong New Area, Shanghai. Prevention and control of MS should be a high priority in reducing the CKD burden in China.

Biography

Zhou Yi has been graduated from School of Medicine,Shanghai Jiaotong University as clinical doctor, with the specialties including cardiovascular medicine. Later on she worked in the Department of Chronic Disease Prevention and Control, Shanghai Pudong New Area Center for Disease Control and Prevention. She obtained her PhD major in Epidemiology from School of Public Health, Shanghai Fudan University, where she has continued her research.

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