

RENAL FUNCTION AND THE METABOLIC SYNDROME AMONG CHINESE POPULATION

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BACKGROUND: The association between chronic kidney disease (CKD) and the metabolic syndrome in Chinese population remains incompletely understood. The objective of this study was to examine how these two were associated in a nationally representative sample of Chinese population.

METHODS: We performed a cross-sectional analysis of 2,864 males and 3,166 females aged 20 to 80 years using data from the Taiwanese Survey on Prevalence of Hyperglycemia, Hyperlipidemia and Hypertension (TwSHHH), 2002. The prevalence of metabolic syndrome was estimated using the definitions of the modified Adult Treatment Panel III (ATP III) for Asians required meeting at least three of the following component risk factors: (1) waist circumference > 90 cm for men and > 80 cm for women; (2) TG \geq 150 mg/dL; (3) HDL-C < 40 mg/dL for men and < 50 mg/dL for women; (4) systolic BP \geq 130 mmHg or diastolic BP \geq 85 mmHg; (5) FPG \geq 110 mg/dL.

RESULTS: Serum concentration of creatinine in the metabolic syndrome group and the non metabolic syndrome group were 0.91 ± 0.30 and 0.94 ± 0.35 mg/dL, respectively ($P < 0.01$). The multivariate-adjusted odds ratios [95% confidence interval (CI)] of elevated serum concentration of creatinine in those with the metabolic syndrome compared to those without the metabolic syndrome were 3.31 (2.00, 5.49).

CONCLUSIONS: Among Chinese population, serum concentrations of creatinine are strongly associated with the prevalence of the metabolic syndrome. These findings suggest that the metabolic syndrome might be an important risk factor in the cause of CKD in Chinese adults.

KEYWORDS: Chronic renal disease, Metabolic syndrome, Chinese population