

THE ASSOCIATIONS BETWEEN METABOLIC SYNDROME COMPONENTS AND CHRONIC RENAL DISEASE AT GATOT SUBROTO HOSPITAL, JAKARTA

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ABSTRACT

Background: The incidence of chronic renal disease in Indonesia is increasing. Metabolic syndrome is one of the risk factors of chronic renal disease. Insulin resistance (type 2 diabetes mellitus, high fasting-blood glucose, glucose intolerance), hypertension, hypertriglyceridemia, low serum HDL level, obesity, and microalbuminuria are components of metabolic syndrome according to WHO criteria. Metabolic syndrome causes chronic inflammation and eventually damages renal cells. This study aimed to examine the associations between metabolic syndrome components and chronic renal disease.

Subjects and Method: This was a cross sectional study carried out at Gatot Subroto Hospital, Jakarta. A sample of 113 patients with chronic renal disease was selected for this study. The dependent variable was patient of chronic renal disease. The independent variable was metabolic syndrome components based on WHO criteria. The data of chronic renal disease were obtained from the medical record. The data were described in percent and analyzed by a multiple logistic regression.

Results: Of all 113 patients with chronic renal disease sample in this study, 66 (58.4%) had metabolic syndrome. Chronic renal disease was associated with type 2 diabetes mellitus (OR= 8.29; 95% CI= 0.77 to 52.50; p= 0.049) and high fasting-blood glucose level (OR= 6.34; 95% CI= 1.01 to 68.08; p= 0.087).

Conclusion: Type 2 diabetes mellitus and high fasting-blood glucose level are associated with an increased risk of chronic renal disease.

Keywords: chronic renal disease, metabolic syndrome, risk factor

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