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学位論文の題名	The prevalence, characteristics, and clinical significance of abnormal albuminuria in patients with hypertension (高血圧患者におけるアルブミン尿の有病率とその意義) Scientific Reports 2014 January 24
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Kidney function and cardiovascular disease are closely connected and albuminuria is a proven marker of cardiovascular risk. This study investigated the prevalence and characteristics of albuminuria in patients with hypertension. Outpatients with essential hypertension under medical treatment were enrolled in this study (n = 350, 70.0 ± 11.4 years old). Urine samples were collected for the measurement of albumin concentration, which are expressed as the ratio of urine albumin to creatinine concentration (mg/g Cr). Cross-sectional analyses were also performed of the relationships between urinary albumin and other variables. Urinary albumin was detected in 88.3% of patients, while only 35.4% showed abnormal albuminuria (≥ 30 mg/g Cr). The presence of abnormal albuminuria was independently correlated with systolic blood pressure, B-type natriuretic peptide, and C-reactive protein by multivariate analysis ($P < 0.05$). Multivariate regression analysis also identified systolic blood pressure, serum creatinine, B-type natriuretic peptide, and C-reactive protein as the only factors showing independent correlation with urinary albumin ($P < 0.05$). Thus, approximately 35% of hypertensive patients had abnormal albuminuria. Urinary albumin was closely associated with blood pressure, C-reactive protein, and B-type natriuretic peptide, indicating that the severity of albuminuria parallels that of systemic inflammation, cardiac load, and blood pressure.