

Abstracts of Outstanding Presentation (3)

Correlation between Proteinuria and the Condition of Patients with Acute Ischemic Stroke

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Background

Microalbuminuria and proteinuria have been reported to be associated with cerebral infarction or cardiovascular disease. We therefore evaluated microalbuminuria and proteinuria, and performed a systematic review of the conditions of patients after acute ischemic stroke.

Method

We divided into 3 groups 166 consecutive patients with acute ischemic stroke who were admitted to our Stroke Center (**Table 1**): 1) those with proteinuria (n=47), 2) those with microalbuminuria alone (n=43), and 3) those without microalbuminuria or proteinuria (n=76). We analyzed the relationship of each group to the subtype of ischemic stroke, the National Institutes of Health Stroke Scale scores (NIHSS) on admission and at discharge, risk factors for ischemic stroke (hypertension, diabetic mellitus, dyslipidemia, previous stroke, and smoking), plasma levels of high-sensitivity C-reactive protein (hs-CRP), and cerebral white matter lesions (periventricular hyperintensity; PVH, and deep white matter hyperintensity; DWMH) on brain magnetic resonance imaging (MRI).

Conclusion

Patients with proteinuria or microalbuminuria had higher NIHSS scores on admission and at discharge than

Table 1 profile

	proteinuria	microalbuminuria	no proteinuria	p value
	47	43	76	
age	73.1 ± 16.2	71.5 ± 12.4	68.0 ± 13.3	NS
male/female	26/21	29/14	46/30	NS
eGFR	64.9 ± 46.9	75.8 ± 28.7	73.1 ± 18.6	NS
smoking (%)	12.7	27.9	24.3	NS
hypertension (%)	74.5	83.7	67.1	NS
diabetic mellitus (%)	46.8	34.9	21.1	0.01
dyslipidemia (%)	42.6	46.5	53.9	NS
previous stroke (%)	42.6	25.6	25	NS

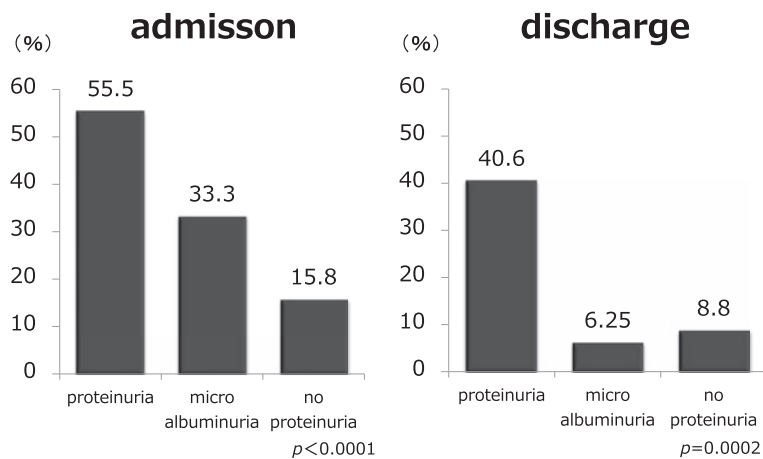


Fig. 1 Percentage of patients in whom the NIHSS ≥ 6

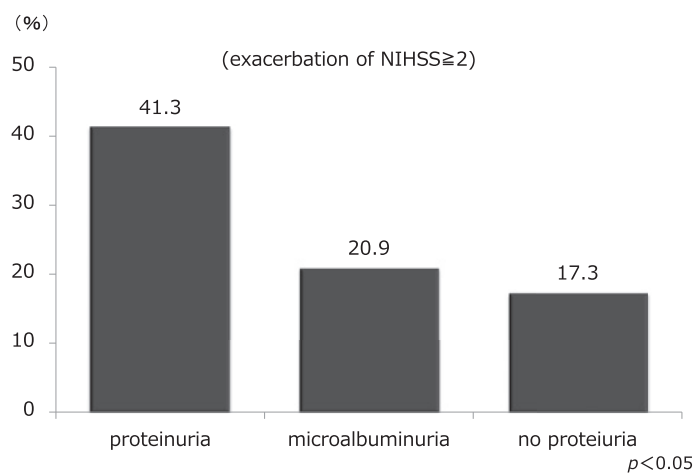


Fig. 2 Exacerbation during hospitalization

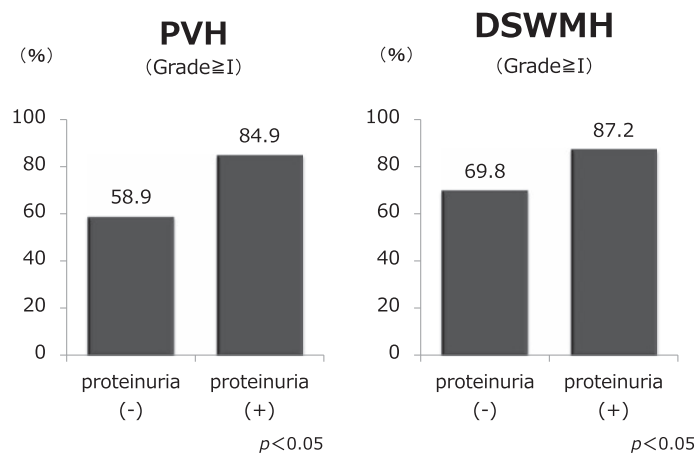


Fig. 3 White matter lesions on brain MRI

patients without proteinuria or microalbuminuria (**Fig. 1, 2**). Of risk factors for ischemic stroke, only diabetes mellitus differed significantly among the 3 groups. In groups with proteinuria or microalbuminuria, the incidence of cerebral white matter lesions was high (**Fig. 3**).