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## **Prevalence and Factors associated with Autonomic Dysfunction in Continuous Ambulatory Peritoneal Dialysis Patients**

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### **Objectives:**

The primary objective of this study aimed to determine the prevalence of autonomic dysfunction (AD) in both diabetic and non-diabetic continuous ambulatory peritoneal dialysis (CAPD) patients. The secondary objective was to identify associated factors of AD.

### **Methods:**

A prospective observational study was conducted among CKD patients who received CAPD at the Renal Unit, Lampang Hospital from August 2019 to January 2020. Testing for AD by observing an EKG record of heart rate variability during deep breathing (HRVDB) in 1 minute was carried out. The comparison between the AD group and non-AD group was obtained by statistical analysis. The regression analysis was used to determine the associated factors of AD.

### **Results:**

A total of 130 CAPD patients were eligible and AD was found in 93 cases (71.5%). Diabetes and overweight were more commonly found in the AD group than the non-AD group (51.6% vs 27.0%,  $p=0.012$  and 49.5% vs 21.6%,  $p=0.005$ , respectively). The AD group received diuretics (77.4% vs 56.8%,  $p=0.030$ ) and beta-blockers (60.2% vs 32.4%,  $p=0.006$ ) more than the non-AD group. The associated factors of AD by univariate analysis were overweight (OR 3.55, 95%CI 1.47-8.57,  $p=0.005$ ), diabetes (OR 2.88, 95%CI 1.25-6.62,  $p=0.013$ ), receiving beta blockers (OR 3.15, 95%CI 1.41-7.05,  $p=0.005$ ) and receiving diuretics (OR 2.61, 95%CI 1.16- 5.88,  $p=0.020$ ). With the multivariate analysis, the associated factors of AD were overweight (OR 2.65, 95%CI 1.03-6.85,  $p=0.044$ ) and diabetes (OR 2.42, 95%CI 1.01-5.84,  $p=0.049$ ).

### **Conclusions:**

Prevalence of AD in CAPD patients was 71.5%. Overweight and diabetes were significant associated factors.