

복막 투석환자에서 대사증후군의 빈도와 말초혈관 석회화의 연관성

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Prevalence of Metabolic Syndrome in PD Patients and the Correlation with Vascular Calcification

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Background: Although metabolic syndrome is known to be closely related to increased cardiovascular morbidity and mortality in general population, its prognostic value in patients with peritoneal dialysis (PD) is largely unknown. This study was planned to evaluate the prevalence of metabolic syndrome and its correlation with other cardiovascular risk factors in stable PD patients.

Methods: One hundred eleven patients who have been treated by peritoneal dialysis for more than 1 year were enrolled. Metabolic syndrome is defined as the presence of three or more components using the modified National Cholesterol Education Program (Adult Treatment Panel III) guidelines. Patients were also divided as the number of corresponding components and the correlation between the number of components of metabolic syndrome with various parameters including simple vascular calcification score (SVCS), brachial-ankle pulse wave velocity (ba-PWV), plasma inflammatory cytokines and other clinical parameters was performed.

Results: The prevalence of metabolic syndrome was 81.7%. Two patients (1.8%) had none of the component, 13 patients (11.9%) had two components, 41 patients (37.6%) had three components, 39 patients (35.8%) had four components and 8 patients (7.3%) corresponded all of five criteria. Patients with metabolic syndrome were significantly older, had higher CRP, WBC count, percentage of neutrophil and SVCS. With multiple regression analysis, as the number of satisfied components increased, WBC counts, CRP and SVCS were increased after adjustment by age. However, there were no significant correlation between ba-PWV or plasma inflammatory cytokines and number of metabolic syndrome components.

Conclusion: PD patients showed higher prevalence of metabolic syndrome than general population. Our observation that there is positive correlation between the number of corresponding components of metabolic syndrome and CRP, WBC counts, medial vascular calcification might suggest that metabolic syndrome in PD patients might also be served as a strong predictor of cardiovascular morbidity and mortality.

Key Words: 복막 투석, 대사증후군, 혈관석회화

Peritoneal dialysis, Metabolic syndrome, Calcification