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The Relationship between Residual Renal Function and Uremic Pruritus in Peritoneal Dialysis

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Background: Residual renal function has been associated with quality of life including uremic symptoms as well as survival in peritoneal dialysis (PD) patients. Uremic pruritus is a common and unpleasant complication of End Stage Renal Disease (ESRD). However, the association between residual renal function (RRF) and uremic pruritus is not well established in PD patients. Our aim is to determine the association between RRF and uremic pruritus in PD patients.
Methods: A total of 223 PD patients from Clinical Research Center registry for ESRD cohort in Korea were assessed the intensity of pruritus, scratching activity, distribution of pruritus and frequency of pruritus-related sleep disturbance by visual analogue scale (VAS) and questionnaire. Timed 24h urine collection was performed during the interdialytic intervals at the time of enrollment. Zero- RRF was operationally defined as having 24h-urine volume <100 mL.
Results: The prevalence of uremic pruritus was 62.6%. Multivariate logistic regression analysis showed that PD patients with zero-RRF had significantly higher prevalence of uremic pruritus after adjustment clinical variables (OR 2.11, 95% 1.16-3.85, p=0.014). The detailed scores with sum of intensity of pruritus, scratching activity and distribution of pruritus were higher in PD patients with zero-RRF compared to those with RRF (P=0.021). There was no significant difference in frequency of pruritus-related sleep disturbance between PD patients with zero-RRF and those with RRF (p=0.271).
Conclusions: Our data showed that RRF was independently associated with the prevalence, intensity and distribution of uremic pruritus in PD patients, which suggest that preservation of RRF is important in improvement of symptoms of uremic pruritus.

Key Words: 소양증, 복막투석, 잔여신기능
Uremic pruritus, Peritoneal dialysis, Residual renal function