



Shaping Tomorrow's Nephrology: Insight-Driven Kidney Care

KSN SEOUL, KOREA
2026

The 46th Annual Meeting of the Korean Society of Nephrology



Jun 11 (Thu) – 14 (Sun), 2026

COEX, Seoul, Korea

Abstract Type : Poster exhibition

Abstract Submission No.: A-0387

Abstract Topic : Dialysis

Effect of Residual Kidney Function on Peritoneal Dialysis Related Infection Outcomes

You Hyun Jeon, Jeong-Hoon Lim, Hee-Yeon Jung, Ji-Young Choi, Jang-Hee Cho, Chan-Duck Kim, Yong-Lim Kim, Sun-Hee Park

Department of Internal Medicine-Nephrology, Kyungpook National University Hospital, Korea, Republic of

Objectives : Residual kidney function (RKF) has been associated with beneficial effects including patients survival and fluid balance in peritoneal dialysis (PD) patients. The objective of this study was to evaluate the association between RKF and peritoneal dialysis related infection outcomes.

Methods : We included 170 patients with incident PD from Peritoneal Dialysis Outcomes and Practice Patterns Study (PDOPPS) Korea. Residual kidney function (RKF) was defined as the mean of 24-hour urinary creatinine and urea clearance. Based on baseline RKF, patients were categorized into lower RKF (<2 mL/min) and higher RKF (≥ 2 mL/min) groups. The incidence rates of PD-related peritonitis were compared between the groups. Cox regression analysis was used to evaluate the effect of RKF on the risk of PD-related peritonitis. Factors associated with RKF were evaluated using multivariable linear regression analysis.

Results : Among incident PD patients, mean RKF values of each group were 0.94 ± 0.74 and 7.10 ± 4.18 , respectively. Patients in the lower RKF group were younger than those in the higher RKF group (43.9 ± 15.8 vs. 54.1 ± 12.5 years); however, other baseline characteristics were not significantly different between the two groups. The incidence rate of peritonitis was significantly higher in the lower RKF group compared in the higher RKF group (0.489 vs. 0.160 per person-year [PY], $P = 0.032$). In Table 1, Lower RKF was independently associated with peritonitis (adjusted hazard ratio [aHR] 10.12, 95% confidence interval [CI] 2.06–49.73, $P = 0.004$). Higher BMI and lower glucose exposure were independently associated with higher RKF (Table 2).

Conclusions : In this Korean PDOPPS cohort, lower RKF was associated with an increased risk of PD-related peritonitis in incident PD patients. These findings suggest that preservation of RKF may be relevant to infection risk in PD patients and warrant further investigation.

Table 1.jpg



Shaping Tomorrow's Nephrology: Insight-Driven Kidney Care

KSN SEOUL, KOREA
2026

The 46th Annual Meeting of the Korean Society of Nephrology



Jun 11 (Thu) – 14 (Sun), 2026

COEX, Seoul, Korea

Table 1. Cox regression analyses for PD-related peritonitis

	Univariate		Model 1		Model 2		Model 3	
	HR (95% CI)	P	aHR (95% CI)	P	aHR (95% CI)	P	aHR (95% CI)	P
Residual kidney function <2 mL/min	3.462 (1.038–11.551)	0.043	6.751 (1.674–27.227)	0.007	5.848 (1.479–23.127)	0.012	10.115 (2.057–49.734)	0.004
Age	1.026 (0.985–1.067)	0.216	1.037 (0.992–1.084)	0.109	1.036 (0.990–1.083)	0.123	1.046 (0.995–1.099)	0.075
Male	2.336 (0.511–10.671)	0.274	2.274 (0.442–11.709)	0.326	2.416 (0.469–12.453)	0.292	2.996 (0.563–15.940)	0.198
Body mass index	0.944 (0.806–1.105)	0.471	0.892 (0.724–1.099)	0.281	0.899 (0.725–1.117)	0.337	0.902 (0.727–1.121)	0.353
Diabetes	1.665 (0.501–5.536)	0.406	1.608 (0.435–5.947)	0.477	1.737 (0.471–6.397)	0.407	1.211 (0.300–4.893)	0.789
Starting PD type (ref: CAPD)	2.813 (0.363–21.814)	0.322			2.971 (0.372–23.758)	0.305	4.680 (0.521–42.009)	0.168
Icodextrin use	0.567 (0.124–2.591)	0.465			0.622 (0.128–3.032)	0.557	0.462 (0.085–2.502)	0.370
PD volume	0.966 (0.757–1.231)	0.777			1.021 (0.780–1.337)	0.878	1.068 (0.767–1.488)	0.697
Marital status	2.590 (0.820–8.175)	0.105					4.031 (0.803–20.244)	0.091
Living status	2.872 (0.764–10.798)	0.119					1.089 (0.141–8.402)	0.935
Education level	1.931 (0.581–6.413)	0.283					2.497 (0.605–10.305)	0.206

Table 1.jpg

Table 2. Linear regression analysis for factors associated with residual kidney function

	Univariate			Multivariate		
	B (SE)	B	P	B (SE)	β	P
Age	0.07 (0.003)	0.22	0.001	0.05 (0.03)	0.14	0.066
Male	0.84 (0.76)	0.09	0.269			
Body mass index	0.47 (0.09)	0.38	<0.001	0.49 (0.09)	0.39	<0.001
Diabetes	0.11 (0.05)	0.153	0.046	−0.05 (0.65)	−0.01	0.933
Icodextrin	0.25 (0.80)	0.03	0.751			
PD volume	−0.28 (0.14)	−0.15	0.051			
Education (ref: college or higher)	−0.23 (0.81)	−0.03	0.773			
Marital status (ref: married)	1.69 (0.73)	0.18	0.021	0.94(0.70)	0.10	0.182
Living status	−0.22 (0.98)	−0.02	0.821			
Glucose exposure	−0.02 (0.01)	−0.22	0.005	−0.02 (0.01)	−0.21	0.003