Supplemental material

- Patient cohorts and spent PD dialysate collection.

- Patient characteristics and antibody test results.

Patient cohorts and spent PD dialysate collection

We analyzed spent PD dialysate samples from four distinct patient groups: Pre-pandemic chronic PD patients (Group1; collected between May 2019 and Feb 2020); COVID-19 negative chronic PD patients (Group 2; collected during pandemic between March and September 2020); chronic PD patients with confirmed COVID-19 (Group 3; collected during pandemic between March and September 2020); and acute kidney injury patients with confirmed COVID-19 and treated with acute PD (Group 4; collected during pandemic in April 2020). Spent PD samples from patients in groups 1, 2 and 3 were collected during a quality improvement project that was approved by the respective clinic governing bodies after legal and compliance review. Samples from Group 1 were collected fully anonymized (no patient information available). While samples from Group 1 were collected locally, samples from Groups 2 and 3 were shipped overnight to the Renal Research Institute Laboratory with ice packs [1]. Group 4 samples were collected at the Mount Sinai Hospital, New York, NY in a clinical research project approved by the Icahn School of Medicine IRB [2,3]. All samples were stored at -80°C until antibody testing. All positive PD samples came from patients with positive nasopharyngeal swab test for SARS-CoV-2. Demographic and clinical data were obtained from the patients' electronic health records.

Reference:

1   Wang X, Patel A, Tisdale L, Haq Z, Ye X, Lasky R, et al. SARS-CoV-2 in spent dialysate from chronic peritoneal dialysis patients with COVID-19. Kidney360. 2020 Dec;10.34067/KID.0006102020.

2   El Shamy O, Vassalotti JA, Sharma S, Aydillo-Gomez T, Marjanovic N, Ramos I, et al. Coronavirus disease 2019 (COVID-19) hospitalized patients with acute kidney injury treated with acute peritoneal dialysis do not have infectious peritoneal dialysis effluent. Kidney Int. 2020 Sep;98(3):782.

3   El Shamy O, Sharma S, Winston J, Uribarri J. Peritoneal Dialysis During the Coronavirus Disease-2019 (COVID-19) Pandemic: Acute Inpatient and Maintenance Outpatient Experiences. Kidney Medicine. 2020 Jul;2(4):377–80.

Patient characteristics and antibody test results.

	COVID-19 negative Controls		COVID-19 positive Cases	
	Group 1: chronic PD patients (pre-COVID-19 era)	Group 2: chronic PD patients (COVID-19 era)	Group 3: chronic PD patients	Group 4: acute PD patients
Patient characteristics				
Dates of sample collection	May 2019 – February 2020	March - September 2020	March - September 2020	April 2020
Patient (n)	15	21	11	11
Age [years]	not available	51±19	54±11	59 ± 10
Males (n)	not available	10	3	6
Time on PD [months]	not available	31.7±19.9 (9-84)	16.1±15.9 (1-58)	0
PD modality (n)	not available	CCPD (18) CAPD (3)	CCPD (10) CAPD (1)	CCPD (11)
Hospitalized due to COVID-19 (n)	None	None	3	11
PD effluent sample count (n)	15	33	30	18
Antibodies				
IgG (ng/ml)	1.5 (0.03-9.1)	3.8 (0.03-51)	422 (0.6-6019)	1345 (9.4-6052)
IgG-to-total protein ratio (x10,000)	0.24 (0.001-1.5)	0.77 (0.009-16.5)	53 (0.06-656)	134 (2.9-466)
Uncorrected total antibodies titer	184 (103-916)	327 (90-1143)	1526 (242-12839)	3024 (310-54548)
Corrected total antibodies titer	553 (226-1868)	784 (304-4924)	3947 (532-25439)	15821 (5541-67584)

Patient characteristics are presented as mean ± standard deviation and range. Categorical

variables are expressed as counts. Nucleocapsid IgG and IgG-to-protein ratios are presented as

arithmetic mean (range). Uncorrected total antibodies titer and corrected total antibodies titer

are presented as geometric mean (range). CAPD, continuous ambulatory peritoneal dialysis;

CCPD, continuous cycling peritoneal dialysis.