Supplementary material

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Supplemental Methods

Patients received a first dose of BNT162b2 mRNA vaccine in late January 2021 in a single hemodialysis center in Sarcelles, France. A second injection was performed 4 weeks later. Humoral response was evaluated weekly until week 7 post-first injection. Samples within 2 days prior to vaccination were considered as baseline. Early serological status was evaluated at week 4 (before second injection). Late serological status was evaluated at last follow-up, after 2 vaccine injections. Previous SARS-CoV-2 infection was characterized by positive baseline serology or known history of SARS-CoV-2 infection. Previous history of COVID-19, and general characteristics were reported. Immunocompromised status was defined by ongoing immunosupressive treatment, previous transplant, human immunodeficiency infection (HIV) infection, chemotherapy in the past 6 months. Informed consent was obtained from each patient. Categorical and continuous variables were respectively expressed as count (percentage) and median (IQR). When appropriate, Chi-2 or Fisher exact test were used for categorical comparison and t-test or Mann-Whitney for continuous variable. Mixed-model approach was used to compare repeated measures of SARS-CoV-2 antibody titers over time between patients with previous history of SARS-CoV-2 infection or not. Results were analyzed with Graph Pad Prism software version 9.0.0 and R software version 4.0.3.

Table S1. Characteristics of patients according to late serological status

VARIABLE	ALL PATIENTS N = 64	SEROPOS. N = 55	SERONEG. N = 9	P VALUE
Age (years), mean (SD)	70 (11.8)	68 (11)	83 (6.7)	< 0.001
Age > 70 years, n (%)	37 (57.8)	28 (50)	9 (100)	0.006
Male, n (%)	50 (78.1)	44 (80)	6 (66.6)	0.370
Cause of nephropathy				0.826
Diabetes and/or vascular nephropathy, n (%)	50 (78)	42 (75)	8 (88)	-
Glomerular disease, n (%)	6 (9)	6 (11)	0 (0)	-
Other, n (%)	8 (13)	7 (14)	1 (12)	-
Comorbidities				
Diabetes mellitus, n (%)	37 (57.8)	32 (58.1)	5 (55.5)	0.882
Hypertension, n (%)	61 (95.3)	52 (94.5)	9 (100)	0.473
Immunocompromised, n (%)	8 (12.5)	7 (12.7)	1 (11.1)	1
Characteristics				
History of covid infection, n (%)	12 (19)	12 (22)	0 (0)	0.189

Table S2. Characteristics of patients according to early serological status

VARIABLE	ALL PATIENTS N = 69	EARLY SEROPOS. N = 23	EARLY SERONEG. N = 46	P VALUE
Age (years), mean (SD)	70 (11.9)	71 (11.6)	68 (12.6)	0.284
Age > 70 years, n (%)	41 (59)	12 (52)	29 (63)	0.386
Male, n (%)	54 (77.9)	17 (73.9)	37 (80.4)	0.536
Cause of nephropathy				1
Diabetes and/or vascular nephropathy, n (%)	52 (77)	17 (78)	35 (76)	-
Glomerular disease, n (%)	7 (10)	2 (9)	5 (11)	-
Other, n (%)	10 (13)	3 (13)	7 (13)	-
Comorbidities				
Diabetes mellitus, n (%)	40 (58.8)	12 (54.5)	28 (60.8)	0.490
Hypertension, n (%)	66 (95.7)	23 (100)	43 (93.4)	0.210
Immunocompromised, n (%)	8 (11.6)	1 (4.4)	7 (15.2)	0.253
Characteristics				
History of covid infection, n (%)	13 (18.8)	13 (56.5)	0 (0)	< 0.0001

Table S3. Characteristics of patients according to previous COVID-19 history.

VARIABLE	ALL PATIENTS N = 69	NO COVID HIST. N = 56	COVID HIST. N = 13	P VALUE
Age (years), mean (SD)	70 (11.9)	71 (11.5)	69 (13.5)	0.705
Age > 70 years, n (%)	55 (79)	45 (78)	10 (77)	0.872
Male, n (%)	55 (79)	45 (78)	10 (77)	0.872
Cause of nephropathy				1
Diabetes and/or vascular nephropathy, n (%)	53 (76)	43 (75)	10 (77)	-
Glomerular disease, n (%)	7 (10)	6 (8)	1 (11)	-
Other, n (%)	10 (14)	8 (14)	2 (15)	-
Comorbidities				
Diabetes mellitus, n (%)	40 (57)	33 (58)	7 (54)	0.790
Hypertension, n (%)	67 (96)	54 (95)	13 (100)	0.398
Immunocompromised, n (%)	8 (11)	7 (12)	1 (8)	1
Characteristics				
Early positive serology, n (%)	23 (33)	10 (18)	13 (100)	< 0.0001
Mean anti-S level, w4(SD)	10.4 (20.2)	1.8 (5.9)	48.5(16.2)	< 0.0001
Late positive serology, n (%)	55/64 (86)	43/52 (83)	12/12 (100)	0.120
Mean anti-S level, w6-7(SD)	28.1 (22.5)	16.8(14.9)	52.3(15.5)	< 0.0001

 ${\bf Table~S4.~Characteristics~of~infection-naive~patients~according~to~early~serological~status.}$

VARIABLE	ALL PATIENTS N = 56	SEROPOS. N = 10	SERONEG. N = 46	P VALUE
Age (years), mean (SD)	71 (11.6)	67 (11.7)	71 (11.5)	0.239
Age > 70 years, n (%)	33 (59)	4 (40)	29 (63)	0.179
Male, n (%)	44 (79)	7 (70)	37 (80)	0.466
Cause of nephropathy				1
Diabetes and/or vascular nephropathy, n (%)	43 (77)	8 (80)	35 (76)	
Glomerular disease, n (%)	6 (11)	1 (10)	5 (11)	
Other, n (%)	7 (12)	1 (10)	6 (13)	
Comorbidities				
Diabetes mellitus, n (%)	33 (59)	5 (50)	28 (61)	0.527
Hypertension, n (%)	53 (95)	10 (100)	43 (93)	0.406
Immunocompromised, n (%)	7 (13)	0 (0)	7 (15)	0.330

Table S5. Characteristics of infection-naive patients according to late serological status.

VARIABLE	ALL PATIENTS N = 52	SEROPOS. N = 43	SERONEG. N = 9	P VALUE
Age (years), mean (SD)	70 (11.6)	68 (10.7)	83 (6.7)	< 0.001
Age > 70 years, n (%)	30 (58)	21 (49)	9 (100)	0.005
Male, n (%)	41 (79)	35 (81)	6 (67)	0.325
Cause of nephropathy				0.823
Diabetes and/or vascular nephropathy, n (%)	40 (77)	32 (74)	8 (89)	-
Glomerular disease, n (%)	5 (10)	5 (12)	0 (0)	-
Other, n (%)	7 (13)	6 (14)	1 (11)	-
Comorbidities				
Diabetes mellitus, n (%)	30 (58)	25 (58)	5 (56)	0.887
Hypertension, n (%)	49 (94)	40 (93)	9 (100)	0.414
Immunocompromised, n (%)	7 (13)	6 (13)	1 (11)	1