Table 1. Baseline characteristics of patients between low to intermediate ($n = 29$) and high IPV of tacrolimus ($n = 11$)

Baseline characteristics	Total	Low to intermediate IPV (n = 29)	High IPV (n = 11)	P-value
Age, mean ± SD, year	50.85 ± 11.07	50.07 ± 11.92	52.91 ± 8.57	0.6702
Female/male, n	24 / 16	18 / 11	6 / 5	0.7275
Body mass index, mean ± SD, kg/m²	23.27 ± 4.75	22.73 ± 4.75	24.72 ± 4.68	0.1681
Duration of hospital stay, mean ± SD, day	11.63 ± 5.38	12.07 ± 5.76	10.45 ± 4.22	0.4126
Type of kidney transplantation, n				
LRKT / DDKT	7 / 33	6 /23	1 / 10	0.6497
At hospital discharge				
Mean eGFR, mean ± SD, mL/min/1.73 m²	51.49 ± 24.89	56.32 ± 26.78	38.76 ± 12.78	0.0282**
Hemoglobin, mean ± SD, g/dL	10.60 ± 1.22	10.54 ± 1.33	10.76 ± 0.84	0.4143
Serum albumin, mean ± SD, g/dL	4.02 ± 0.38	3.96 ± 0.34	4.16 ± 0.44	0.2433
Tacrolimus dose, mean ± SD, mg/day	6.71 ± 3.59	6.44 ± 3.57	7.40 ± 3.72	0.4761
Normalized tacrolimus dose, mean ± SD, mg/kg/day	0.11 ± 0.006	0.10 ± 0.05	0.11 ± 0.07	0.9821
Mycophenolate mofetil dose, mean ± SD, mg/day[a]	1,437.50 ± 167.47	1,414 ± 192.2	1,500 ± 0.00	0.2975
Follow-up period				
Hemoglobin level at 3 months, mean ± SD, g/dL	12.17 ± 1.8383	12.54 ± 1.77	11.23 ± 1.72	0.0425**
Hemoglobin level at 12 months, mean ± SD, g/dL	13.42 ± 1.8474	13.73 ± 1.99	12.46 ± 0.69	0.0707
Mean eGFR at 3 months, mean ± SD, mL/min/1.73 m²	55.73 ± 18.1181	58.05 ± 19.69	49.62 ± 11.75	0.1924
Mean eGFR at 12 months, mean ± SD, mL/min/1.73 m²	56.34 ± 15.9865	57.93 ± 16.40	52.03 ± 14.74	0.3250

NA = not available

[a]Mycophenolate sodium 1,080 mg = mycophenolate mofetil 1,500 mg

MO1000 **DIFFERENCES IN HUMORAL RESPONSE AFTER SARS-COV-2 VACCINATION BETWEEN KIDNEY TRANSPLANT AND PERITONEAL DIALYSIS PATIENTS: WHAT IS THE IMPACT OF IMMUNOSUPPRESSION?**

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BACKGROUND AND AIMS: Patients on renal replacement therapy are reported to have altered humoral immunity, which is demonstrated by a decreased response to different vaccines. However, in kidney transplant (KT) patients, vaccines are even less immunogenic in terms of antibody response. Therefore, these patients have a higher risk of critical infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which makes them eligible for early vaccination. The aim of this study was to compare the humoral response after complete vaccination against SARS-CoV-2 between KT patients and peritoneal dialysis (PD) patients.

METHOD: We conducted a single-center, retrospective study, which included 67 KT recipients and 49 prevalent PD patients. Patients were excluded if they had previously known SARS-CoV-2 infection or positive anti-nucleocapsid IgG or IgM antibodies. Completion of vaccination was defined as two doses of a messenger RNA vaccine (BNT162b2 messenger RNA vaccine [Pfizer-BioNTech] or messenger RNA-1273 [Moderna]), two doses of viral vector vaccine ChadOx1 nCoV-19/AZD1222 (AstraZeneca) or one dose of JNJ-78 436 735 (Janssen) vaccine. Anti-spike (anti-S) IgG antibodies were measured, at least, 21 days after the completion of vaccination and before receiving a 'booster' dose. A value of anti-S >0.8 U/mL was considered positive. Immunogenicity of the vaccine, measured by anti-spike IgG antibodies, was compared between KT recipients and PD patients.

RESULTS: The mean age of the population was 58.8 ± 13.6 years and 62.0% were males (similar between the two groups). The median interval between completion of vaccination and serologic analysis was 4.1 months in KT patients and 7.1 months in PD patients. In KT patients, the median anti-S level was 1.50 U/mL (IQR 0.0–27.3) versus 97.0 U/mL (IQR 34.5–447.0) in PD patients ($P < .001$). In the KT group, there were 31 (46.3%) non-responders (patients without detectable levels of anti-S), while in the second there were only two (4.1%). In KT patients, anti-S levels were not associated with time since transplant or immunosuppressive induction therapy. In PD patients, anti-S levels were not associated with time since the beginning of PD. In both groups, anti-S levels were not associated with age, gender, type of administered vaccine or interval between completion of vaccination and serologic analysis.

CONCLUSION: We found a significant difference in humoral responses to the vaccine between PD and KT transplant patients with no previous exposure to SARS-CoV-2. In PD patients, the vaccine seemed to be effective. On the contrary, KT patients had a significantly weaker rising of anti-S titers, with a high proportion of patients not responding to the vaccine. This study emphasizes the negative impact of immunosuppression on humoral responses, reinforcing the need for a 'booster' dose in this group of patients.