



COVID-19 INFECTION AND VACCINATION IN KIDNEY TRANSPLANT RECIPIENTS IN HOSPITAL KUALA LUMPUR.



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Introduction

Vaccination had been proven effective in preventing serious infectious disease. Mortality rate for kidney transplant recipients was 20% if contracting COVID-19 infection prior to vaccination.

Methods

This is a single center retrospective observational study. All kidney transplant recipients diagnosed with COVID-19 infection from 15th December 2020 till 15th March 2022 were recruited. Demographic, clinical data and outcome were collected and analysed using SPSS version 20.

Results

Table 1 : Demographics

	All (n=89)	Vaccinated (n=65)	Not vaccinated (n=24)	P-value
Gender (Male), n (%)	54 (60.7)	37 (41.6)	17 (19.1)	0.233
Age, mean (SD)	39.1 (12.7)	37.5 (11.3)	43.5 (15.2)	0.045
Diabetes mellitus, n (%)	22 (24.7)	16 (18.0)	6 (6.7)	0.970
Hypertension, n (%)	47 (52.8)	29 (32.6)	18 (20.2)	0.011
Obese, n (%)	31 (34.8)	22 (24.7)	9 (10.1)	0.748
Cardiovascular disease, n (%)	5 (5.6)	3 (3.4)	2 (2.2)	0.875
Transplant to diagnosis, months, mean(SD)	98.6 (93.0)	92.1 (85.0)	116.1 (112.2)	0.284
Steroid, n(%)	86 (96.6)	62 (69.7)	24 (27.0)	-
Calcineurin inhibitors				-
Cyclosporine, n(%)	8 (9.0)	4 (4.5)	4 (4.5)	
Tacrolimus, n(%)	78 (87.6)	60 (67.4)	18 (20.2)	
Antimetabolite				-
Azathioprine, n(%)	8 (9.0)	6 (6.7)	2 (2.2)	
Mycophenolic acid, n(%)	64 (61.1)	48 (53.9)	16 (18.0)	
MTOR inhibitor, n(%)	12 (13.5)	8 (9.0)	4 (4.5)	-
MTOR inhibitor, n(%)	6 (16.7)	5 (13.9)	1 (2.8)	0.079

Table 2 : Clinical presentation

	All (n=89)	Vaccinated (n=65)	Not vaccinated (n=24)	P-value
Any Sx, n(%)	70 (78.7)	56 (62.9)	14 (15.7)	0.004
Fever,n(%)	40 (44.9)	33 (37.1)	7 (7.9)	0.069
Cough, n(%)	49 (55.1)	36 (40.4)	13 (14.6)	0.918
Sore throat, n(%)	22 (24.7)	21 (23.6)	1 (1.1)	0.006
Rhinorrhea, n(%)	25 (28.1)	23 (25.8)	2 (2.2)	0.012
Diarrhea, n(%)	11 (12.4)	7 (7.9)	4 (4.5)	0.699
Anosmia, n(%)	4 (4.5)	2 (2.2)	2 (2.2)	0.627
Loss of taste, n(%)	3 (3.4)	1 (1.1)	2 (2.2)	0.360

Table 3 : Clinical outcome

	All (n=89)	Vaccinated (n=65)	Not vaccinated (n=24)	P-value
Hospitalization, n(%)	52 (58.4)	28 (31.5)	24 (27.0)	<0.001
CAT 1-2	60 (67.4)	48 (53.9)	12 (13.5)	0.033
CAT 3-5	29 (32.6)	17 (19.1)	12 (13.5)	
Oxygen supplementation, n(%)	17 (19.1)	10 (11.2)	7 (7.9)	0.244
Intensive care admission, n(%)	7 (7.9)	4 (4.5)	3 (3.4)	0.587
Non-invasive ventilation, n(%)	4 (4.5)	2 (2.2)	2 (2.2)	0.627
Mechanical ventilation, n(%)	3 (3.4)	1 (1.1)	2 (2.2)	0.360
Thromboembolism, n(%)	2 (2.2)	1 (1.1)	1 (1.1)	1.000
Acute kidney injury, n(%)	14 (15.7)	7 (7.9)	7 (7.9)	0.074
Kidney replacement therapy, n(%)	4 (4.5)	2 (2.2)	2 (2.2)	0.627
Death, n(%)	3 (3.4)	0 (0)	3 (3.4)	0.025

Conclusion

COVID-19 vaccination reduced morbidity and mortality in kidney transplant recipients. Those vaccinated had mild disease and can be managed as outpatient.

Reference

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