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SUPPLEMENTARY MATERIAL

Evaluation of the efficacy of convalescent plasma in moderate to severe COVID-19 during 2020-2021: a retrospective observational study

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Supplementary Table 1. Demographic and baseline characteristics of study participants.

Parameter	Case (N=170)	Control (N=43)	P value
Age (years), Mean (SD)	59.97 (14.34)	59.11 (14.17)	0.728
Males, n (%)	114 (67.05)	31(72.09)	0.527
Comorbidities, n (%)			
Diabetes Mellitus	86 (50.58)	17 (38.63)	0.195
Hypertension	71 (41.76)	18 (41.86)	0.990
Coronary artery disease	15 (8.82)	4 (9.3)	0.921
Chronic kidney disease	9 (5.29)	2 (4.65)	0.864
Chronic liver disease	1 (0.58)	0	0.614
Chronic obstructive pulmonary disease	14 (8.23)	1 (2.32)	0.176
Parameters at presentation, Mean (SD)			
Days from symptom onset to admission	5.87 (3.32)	6.11 (3.12)	0.669
Duration from symptom onset to plasma transfusion or transfusion advised (in controls) (days)	9.95 (3.76)	8.38 (3.15)	0.013
APACHE II score	9.73 (5.70)	10.37 (6.31)	0.532
SOFA score (first 24 hours)	3.076 (1.95)	3.075 (2.47)	0.996

APACHE, acute physiology and chronic health evaluation; SD, standard deviation; SOFA, sequential organ failure assessment.

Supplementary Table 2. Clinical, laboratory and radiological findings in study population at baseline and drugs received during hospital stay.

Clinical, Laboratory and radiological findings	Case (N=170)	Control (N=43)	P value
Symptoms, n (%)			
Fever	132 (77.64)	35 (81.39)	0.594
Cough	85 (50.0)	18 (41.86)	0.340
Breathlessness	127 (74.70)	31 (72.09)	0.727
Baseline vitals, Mean (SD)			
Heart rate	97.26 (18.26)	100.81 (17.14)	0.250
Systolic BP	126.39 (17.71)	128.46 (21.58)	0.513
Diastolic BP	75.44 (9.20)	77.13 (9.98)	0.289
SpO2	91.23 (7.59)	88.93 (11.90)	0.118
RR	25.29 (5.69)	26.11 (5.29)	0.391
PFR at baseline	199.34 (107.72)	173.01 (102.38)	0.240
pre-CPT PFR (0 hour)	142.11 (73.99)	151.11 (88.87)	0.56
Mode of respiratory support at baseline, n (%)			
Room air	96 (56.54)	19 (44.2)	0.106
Conventional oxygen therapy	27 (15.9)	12 (27.9)	
Non-invasive ventilation	37 (21.8)	9 (20.9)	
HFNC	0 (0)	1 (2.3)	
Invasive mechanical ventilation	9 (5.3)	2 (4.7)	
Lab investigations, Mean (SD)			
Hemoglobin	12.00 (2.06)	12.40 (2.43)	0.245
TLC	10.01 (6.04)	10.05 (4.84)	0.960
NL ratio	11.53 (10.06)	14.22 (11.71)	0.131
Platelet count	193.36 (92.13)	217.79 (105.11)	0.132
S. Bilirubin	0.58 (0.54)	0.59 (0.45)	0.909
SGOT	81.39 (246.17)	70.33 (110.58)	0.764
SGPT	65.09 (135.67)	56.54 (50.40)	0.685
Blood urea nitrogen	21.84 (14.53)	22.09 (15.62)	0.921
Serum creatinine	1.34 (1.55)	0.70 (1.09)	0.724
Procalcitonin	3.26 (15.03)	1.23 (3.70)	0.428
Chest Xray Murray score, Mean (SD)	2.69 (1.00)	2.72 (1.11)	0.889
CT severity score, Mean (SD)	15.27 (5.00)	15.20 (5.95)	0.951
Drug treatments, n (%)			
Hydroxychloroquine	6 (3.52)	11 (25.58)	0.0000018
Azithromycin	0 (0)	5 (11.62)	0.0000053
Steroids	162 (95.29)	37 (86.04)	0.028
Vitamin C	140 (82.35)	30 (69.76)	0.062
Oseltamivir	19 (11.17)	7 (16.27)	0.361
Favipiravir	1 (0.588)	0 (0)	0.614
Remdesivir	146 (85.88)	19 (44.18)	5.295
Tocilizumab	5 (2.94)	4 (9.30)	0.064

BP, blood pressure; CPT, convalescent plasma therapy; CT, computed tomography; NL, neutrophil:lymphocyte; PFR, PaO2:FiO2 ratio; RR, respiratory rate; SD, standard deviation.

Supplementary Table 3. Comparison of primary and secondary outcomes between convalescent plasma therapy (intervention arm) and control arm.

Outcomes	N Cases/control	Case	Control	P value
Primary outcome				
PFR at day 5, Mean (SD)	170/43	187.02 (102.34)	160.29 (83.39)	0.206
Secondary Outcomes				
Mortality at 28 days post CPT, n (%)	170/43	80 (47.05)	16 (37.20)	0.246
Inflammatory Markers, Mean (SD)				
Ferritin pre-CPT	143/33	1559.79 (6624.78)	1356.29 (2709.17)	0.864
Ferritin post-CPT	84/21	881.77 (824.91)	2961.08 (7039.41)	0.191
IL-6 pre-CPT	141/27	103.80 (126.75)	78.32 (156.79)	0.366
IL-6 post-CPT	87/15	192.20 (827.21)	807.26 (2125.95)	0.281
CRP pre-CPT	159/33	110.27 (93.50)	105.24 (89.74)	0.777
CRP post-CPT	96/25	63.71 (64.60)	108.26 (117.29)	0.078
Pre D-dimer (>1000ng/ml), n (%)	140/31	54 (39.13)	11 (35.18)	0.706
Post D-dimer (>1000ng/ml), n (%)	84/20	33 (44)	15 (71)	0.026
ICU-LOS (days), Mean (SD)	170/43	12.16 (5.11)	9.76 (5.89)	0.064
Hospital LOS (days), Mean (SD)	170/43	16.11 (8.06)	17.76 (10.08)	0.256

CPT, convalescent plasma therapy; CRP, C reactive protein; IL-6, interleukine-6; N, number of patients for which data is available; PFR, PaO2:FiO2 ratio; LOS, length of stay; SD, standard deviation.

Supplementary Table 4. Comparison of mortality amongst the different blood groups in patients who received convalescent plasma.

Blood group	Number of patients	Patients died, n (%)	P value
O	40	25 (62.5)	0.123
A	43	20 (46.51)	
B	72	28 (38.88)	
AB	15	7 (46.66)	

Supplementary Table 5. Mortality in subgroups based on mode of oxygen therapy.

	Cases (N=170)		Control (N=43)		p-value
Subgroups	**Deaths**	**Mortality (%)**	**Deaths**	**Mortality (%)**	
COT	16	22.85	5	23.80	0.927
NIV	29	47.54	7	41.17	0.641
IMV	35	89.74	4	80	0.518

COT, conventional oxygen therapy; NIV, non-invasive ventilation; IMV, invasive mechanical ventilation.

Supplementary Table 6. Mortality in age subgroups.

	Cases (N=170)		Controls (N=43)		p value
Age group	Deaths	Mortality (%)	Deaths	Mortality (%)	
<50	11	34.37	4	33.33	0.948
50-74	57	51,81	11	47.82	0.727
75	12	46.15	1	12.5	0.086