

**Table 1. Baseline characteristics of patients with COVID-19 infection.**

	All patients <i>n</i> =32	Disease subtypes			<i>P</i> -value
		Common subtype ( <i>n</i> =5)	Severe Subtype ( <i>n</i> =18)	Critical Subtype ( <i>n</i> =9)	
<b>Demographic parameters</b>					
Age	61 (54 - 73)	61 (55 - 73)	64 (55 - 72)	55 (53 - 81)	0.957
Male sex, <i>n</i> (%)	20 (62.5)	3 (60)	10 (55.6)	7 (77.8)	0.608
<b>Clinical parameters</b>					
Fever, <i>n</i> (%)	17 (53.1)	1 (20)	12 (66.7)	4 (44.4)	0.159
Heart rate, beats per minute	82 (76 - 94)	82 (72 - 87)	85 (76 - 96)	79 (68 - 94)	0.692
Respiratory rate, breaths per minute	20 (20 - 22)	20 (18 - 20)	20 (20 - 23)	21 (19 - 33)	0.155
Systolic blood pressure, mmHg	136 (124 - 144)	138 (132 - 157)	129.5 (119 - 144)	139 (130 - 167)	0.102
Diastolic blood pressure, mmHg	79 (72 - 82)	82 (75 - 88)	75 (68 - 82)	82 (74 - 87)	0.091
Hypertension, <i>n</i> (%)	10 (31.3)	2 (40)	5 (27.8)	3 (33.3)	0.879
Diabetes, <i>n</i> (%)	5 (15.6)	1 (20)	3 (16.7)	1 (11.1)	1.000
CRRT, <i>n</i> (%)	1 (3.1)	0	0	1 (11.1)	0.438
Invasive ventilation, <i>n</i> (%)	9 (28.1)	0	1 (5.6)	8 (88.9) # &	<b>&lt;0.001</b>
ECMO, <i>n</i> (%)	4 (12.5)	0	0	4 (44.4) &	<b>0.006</b>
<b>Length of hospital stay, days</b>	23 (17 - 27)	14 (11 - 15)	22 (18 - 26) *	27 (24 - 35) # &	<b>&lt;0.001</b>
<b>Laboratory parameters</b>					
Leukocyte count, × 10 <sup>9</sup> /L	7.7 (5.7 - 11.8)	5.9 (5.5 - 12.7)	7.2 (5.2 - 11.4)	8.2 (7.5 - 12.1)	0.466
Lymphocyte count, × 10 <sup>9</sup> /L	0.8 ± 0.4	0.9 ± 0.4	0.9 ± 0.3	0.6 ± 0.4	0.183
Hemoglobin, g/L	124.6 ± 17.4	117.4 ± 16.9	123.9 ± 16.2	130 ± 20.2	0.431
Platelet count, × 10 <sup>9</sup> /L	229.4 ± 100.3	353.0 ± 109.7	226.8 ± 80.1 *	166.1 ± 72.7 #	<b>0.002</b>
C-reactive protein ≥ 10 mg/L, <i>n</i> (%)	29 (90.6)	4 (80)	16 (88.9)	9 (100)	0.395
Alanine aminotransferase, U/L	24 (20 - 42)	39 (20 - 85)	23.5 (19 - 27)	42 (22 - 102)	0.197

Aspartate aminotransferase, U/L	31 (25 - 61)	28 (21 - 48)	30 (25 - 35)	57 (39 - 96) &	<b>0.008</b>
Lactose dehydrogenase, U/L	401 ± 151	257 ± 77	365 ± 103	553 ± 145 # &	<b>&lt;0.001</b>
Creatinine kinase, U/L	70 (56 - 207)	64 (41 - 75)	64 (54 - 172)	164 (72 - 361)	<b>0.037</b>
Serum albumin, g/L	31.6 (29 - 35)	32.7 (29 - 37)	31.6 (29 - 35)	30.5 (29 - 33)	0.618
Blood urea nitrogen, mg/dL	15.6 ± 6.7	17.6 ± 5.7	14.3 ± 7.9	17.1 ± 3.8	0.475
Serum creatinine, mg/dL	0.7 ± 0.1	0.8 ± 0.1	0.7 ± 0.2	0.8 ± 0.1	0.566
e-GFR, mL/min/1.73 m <sup>2</sup>	100.7 ± 20.3	99.8 ± 18.3	103.1 ± 21.7	96.4 ± 20.0	0.731
Urinary β2MG ≥ 0.195 ug/mL, n (%)	20 (62.5)	2 (40)	11 (61.1)	7 (77.8)	0.417
Urinary α1MG ≥ 12 mg/L, n (%)	20 (62.5)	1 (20)	12 (66.7)	7 (77.8)	0.086
Urinary RBP ≥ 0.7 μg/mL, n (%)	10 (31.3)	0	4 (22.2)	6 (66.7)	<b>0.019</b>
Urinary NAG ≥ 14.6 U/L, n (%)	10 (31.3)	1 (20)	4 (22.2)	5 (55.6)	0.191
Urinary β2MG-creatinine ratio, mg/g	0.4 (0.1 - 2.1)	0.2 (0.1 - 0.5)	0.2 (0.1 - 1.0)	4.8 (0.4 - 150) &	<b>0.024</b>
Urinary α1MG-creatinine ratio, mg/g	16.3 (8.1 - 37.6)	7.8 (3.7 - 15.9)	14.2 (7.5 - 28.8)	222 (26.6 - 593) # &	<b>0.001</b>
Urinary RBP-creatinine ratio, mg/g	0.4 (0.2 - 4.7)	0.1 (0.1 - 0.3)	0.3 (0.2 - 0.6)	24.3 (0.5 - 166) # &	<b>0.001</b>
Urinary NAG-creatinine ratio, mg/g	8.1 (4.6 - 17.0)	6.6 (4.5 - 8.4)	7.5 (4.6 - 13.8)	68.1 (6.1 - 172) &	<b>0.049</b>
Urinary ACR category, n (%)					<b>0.002</b>
ACR ≥ 30 mg/g	7 (21.9)	0	1 (5.6)	6 (66.7)	
ACR < 30 mg/g	25 (78.1)	5 (100)	17 (94.4)	3 (33.3)	
Proteinuria, n (%)					<b>0.019</b>
Negative	22 (68.8)	5 (100)	14 (77.8)	3 (33.3)	
Positive	10 (31.2)	0	4 (22.2)	6 (66.7)	
<b>Clinical outcome</b>					
Remained in hospital, n (%)	12 (37.5)	0	6 (33.3)	6 (66.7)	<b>0.036</b>
Discharged, n (%)	20 (62.5)	5 (100)	12 (66.7)	3 (33.3)	

Abbreviations:

ACR=albumin to creatinine ratio, CRRT=continuous renal replacement therapy, eGFR=estimated glomerular filtration rate, ECMO=extracorporeal membrane

oxygenation, RBP=retinol binding protein, NAG=N-acetyl- $\beta$ -D-glucosaminidase,  $\beta$ 2MG= $\beta$ 2-microglobulin,  $\alpha$ 1MG= $\alpha$ 1-microglobulin.

Data are expressed as numbers (percentages) for categorical variables, as means  $\pm$  SD for normally distributed continuous variables and medians (inter-quartile ranges) for skewed distributed continuous variables. Differences between the groups were tested either by one-way ANOVA analysis (Bonferroni correction for comparisons) and the Kruskal-Wallis test (for continuous variables) or by the  $\chi^2$ -test and Fisher's exact test (for categorical variables).

\* $P < 0.05$  between common and severe subtype

# $P < 0.05$  between common and critical subtype

& $P < 0.05$  between severe and critical subtype