

Table 1. Comparison of laboratory parameters of COVID-19 patients at admission and on day 5 of treatment

	Admission (n=48)	Day 5 of treatment (n=48)	p
WBC (/μL)	6911.5 ± 2839.6	6833.1 ± 3170.5	0.7
Lymphocytes (/μL)	1218 ± 560.1	1410.1 ± 828.1	0.09
Neutrophils (/μL)	5021.3 ± 2810.2	4812.3 ± 3037.8	0.925
NLR	7.1 ± 11.1	6.1 ± 10.9	0.371
AST (U/L)	38.6 ± 20.4	29.9 ± 16.5	0.004
ALT (U/L)	30.7 ± 25.3	27.6 ± 15.3	0.682
LDH (U/L)	369.1 ± 144.2	329.3 ± 151.4	0.024
GGT (U/L)	43.3 ± 37.3	39.4 ± 35.9	0.633
ALP (U/L)	84.6 ± 48.3	71.4 ± 28.3	0.009
Sodium (mmol/L)	137.3 ± 3.6	139.2 ± 3.3	0.122
Potassium (mmol/L)	4.1 ± 0.4	4.2 ± 0.6	0.652
Creatine (mg/dL)	1.2 ± 1.3	1.2 ± 1.4	0.241
Prothrombin time (s)	17.3 ± 8.9	16.3 ± 6.1	0.024
CRP (mg/dL)	84.7 ± 82.7	27.5 ± 27.4	0.001
Troponin-I (ng/dL)	28.1 ± 61.1	22.1 ± 70.4	0.001
PaO ₂ /FiO ₂	284.6 ± 73.4	309.5 ± 49.2	0.02
D-Dimer (ng/mL)	1297.8 ± 1628.6	751.6 ± 844.5	0.001
COHb (%)	0.41 ± 0.34	1.75 ± 0.93	0.001

WBC: White blood cells, NLR: Neutrophil/lymphocyte ratio, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, LDH: Lactate dehydrogenase, GGT: Gamma glutamyl transferase, ALP: Alkaline phosphatase, COHb: Carboxyhemoglobin

Table 2. Comparison of laboratory parameters at admission and on day 5 among COVID-19 patients who did and did not develop macrophage activation syndrome (MAS)

	MAS patients (n=13)		Non-MAS patients (n=35)		
	Admission	Day 5 of treatment	Admission	Day 5 of treatment	p
WBC (/μL)	7813.1 ± 3449.4	8142.1 ± 3938.7	6576.6 ± 2553.5	6396.6 ± 2813.5	0.3 / 0.2
Lymphocytes (/μL)	767.8 ± 373.6	694.1 ± 253.1	1386.1 ± 527.1	1648.7 ± 816.5	0.001 / 0.001
Neutrophils (/μL)	6469.2 ± 3587.6	6993.1 ± 3939.2	4483.4 ± 2296.7	4085.3 ± 2325.5	0.08 / 0.007
NLR	15.7 ± 18.6	15.1 ± 19.5	3.9 ± 3.2	3.1 ± 2.7	0.001 / 0.002
AST (U/L)	40.4 ± 12.9	43.2 ± 26.2	37.9 ± 22.6	25.5 ± 8.4	0.71 / 0.002
ALT (U/L)	32.2 ± 24.8	32.7 ± 15.9	30.2 ± 25.8	25.9 ± 14.9	0.8 / 0.3
LDH (U/L)	456.5 ± 168.3	496.8 ± 144.5	336.6 ± 121.5	273.4 ± 107.1	0.009 / 0.001
GGT (U/L)	61.9 ± 55.4	69.2 ± 61.2	36.3 ± 25.7	29.5 ± 12.8	0.03 / 0.002
ALP (U/L)	79.1 ± 30.2	61.9 ± 26.5	86.7 ± 53.8	74.5 ± 28.6	0.5 / 0.2
Sodium (mmol/L)	136.9 ± 3.7	141.1 ± 4.9	137.4 ± 3.7	138.3 ± 2.4	0.6 / 0.02
Potassium (mmol/L)	4.2 ± 0.4	4.6 ± 0.8	3.9 ± 0.4	4.1 ± 0.4	0.08 / 0.002
Creatine (mg/dL)	2.1 ± 2.2	2.6 ± 2.5	0.9 ± 0.6	0.8 ± 0.2	0.008 / 0.001
Prothrombin time (s)	21.8 ± 14.9	21.1 ± 10.8	15.6 ± 4.5	14.7 ± 1.9	0.03 / 0.003
CRP (mg/dL)	188.2 ± 54.4	50.8 ± 21.1	46.3 ± 52.9	18.9 ± 23.8	0.001 / 0.001
Troponin-I (ng/dL)	75.9 ± 100.9	67.2 ± 125.5	10.4 ± 18.9	4.8 ± 8.3	0.001 / 0.005
PaO ₂ /FiO ₂	207.5 ± 57.4	304.7 ± 29.4	313.3 ± 56.3	310.1 ± 56.1	0.001 / 0.7
PaCO ₂ (mm_Hg)	30,1 ± 12,8	36,2 ± 7,7	36,2 ± 8,1	36,1 ± 7,4	0,001 / 0,8
D-Dimer (ng/mL)	2134.2 ± 2173.1	1093.8 ± 757.3	987.2 ± 1277.9	616.8 ± 849.4	0.03 / 0.02
COHb (%)	0.2 ± 0.1	2.4 ± 0.4	0.5 ± 0.4	1.5 ± 0.7	0.002 / 0.07
Ferritin (ng/mL)	683.8 ± 82.5	490.3 ± 75.6	235.2 ± 89.8	134.6 ± 76.4	0.001 / 0.001

MAS: Macrophage activation syndrome, WBC: White blood cells, NLR: Neutrophil/lymphocyte ratio, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, LDH: Lactate dehydrogenase, GGT: Gamma glutamyl transferase, ALP: Alkaline phosphatase, COHb: Carboxyhemoglobin
p: Comparison of parameters at time of admission and day 5 of treatment between groups

Table 3. Comparison of laboratory parameters at admission and on day 5 among COVID-19 patients who did and did not develop acute respiratory distress syndrome (ARDS)

	ARDS patients (n=26)		Non-ARDS patients (n=22)		
	Admission	Day 5 of treatment	Admission	Day 5 of treatment	p
WBC (/μL)	7628.5 ± 3123.6	7741.9 ± 3022.1	6064.1 ± 2245.5	5828.4 ± 3098.7	0.05 / 0.05
Lymphocytes (/μL)	942.7 ± 459.4	934.7 ± 463.3	1544.5 ± 495.3	1935.3 ± 832.2	0.001 / 0.001
Neutrophils (/μL)	6090.4 ± 3039.9	6203.3 ± 3061.4	3757.7 ± 1893.7	3274.7 ± 2197.3	0.002 / 0.001
NLR	11.1 ± 14.1	10.1 ± 14.1	2.5 ± 1.1	1.7 ± 0.8	0.005 / 0.01
AST (U/L)	44.5 ± 22.3	34.4 ± 20.9	31.5 ± 8.6	25.1 ± 7.1	0.02 / 0.07
ALT (U/L)	33.4 ± 31.9	30.1 ± 17.9	27.5 ± 14.1	24.9 ± 11.5	0.4 / 0.3
LDH (U/L)	437.8 ± 163.1	420.9 ± 151.8	287.7 ± 45.1	227.9 ± 58.1	0.001 / 0.001
GGT (U/L)	49.7 ± 45.1	47.8 ± 46.3	35.6 ± 23.9	30.2 ± 15.6	0.2 / 0.1
ALP (U/L)	86.6 ± 59.6	63.1 ± 26.2	82.3 ± 31.5	80.6 ± 28.3	0.7 / 0.05
Sodium (mmol/L)	136.8 ± 3.4	139.7 ± 4.1	137.7 ± 3.9	138.3 ± 2.3	0.4 / 0.1
Potassium (mmol/L)	4.1 ± 0.5	4.3 ± 0.7	4.1 ± 0.3	4.1 ± 0.3	0.4 / 0.3
Creatine (mg/dL)	1.4 ± 1.6	1.6 ± 1.9	0.9 ± 0.8	0.8 ± 0.2	0.2 / 0.06
Prothrombin time (s)	20.1 ± 11.2	17.8 ± 8.1	14.1 ± 2.9	14.6 ± 1.5	0.02 / 0.1
CRP (mg/dl)	130.1 ± 77.2	42.3 ± 26.3	30.7 ± 50.8	10.1 ± 16.3	0.001 / 0.001
Troponin-I (ng/dl)	47.8 ± 77.6	38.5 ± 92.1	4.9 ± 10.8	1.7 ± 1.7	0.01 / 0.07
PaO ₂ /FiO ₂	229.8 ± 56.1	298.8 ± 41.8	349.3 ± 15.3	350.3 ± 47.2	0.001 / 0.03
PaCO ₂ (mm_Hg)	28,2 ± 9,9	31,2 ± 6,7	37,4 ± 6,6	38,1 ± 5,8	0,001 / 0,001
D-Dimer (ng/ml)	1915.4 ± 2015.8	1083.5 ± 997.8	568.1 ± 263.1	320.1 ± 179.5	0.003 / 0.002
COHb (%)	0.3 ± 0.3	2.0 ± 0.8	0.6 ± 0.4	1.4 ± 0.5	0.001 / 0.001
Ferritin (ng/ml)	466.1 ± 137.1	301.6 ± 47.3	227.4 ± 92.4	180.6 ± 36.7	0.001 / 0.001

ARDS: Acute respiratory distress syndrome, WBC: White blood cells, NLR: Neutrophil/lymphocyte ratio, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, LDH: Lactate dehydrogenase, GGT: Gamma glutamyl transferase, ALP: Alkaline phosphatase, COHb: Carboxyhemoglobin
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