Supplementary Online Content

Table I: Initial and Maximum Laboratory values

Table II: Comparison of initial and maximum laboratory values for patients with stroke and COVID-19 infection

Table III: Antiphospholipid antibodies characteristics for patients with COVID-19 infection and stroke

Table I: Initial and Maximum Laboratory values

Variable	All N=83	Male N=44	Female N=39	p value
Initial Laboratory values[†]				
Prothrombin Time (sec), median (IQR)	13 (4)	13 (5)	13 (3)	0.94
Partial Thromboplastin Time (sec), median (IQR)	31 (9)	31 (12)	30 (9)	0.97
Fibrinogen level (mg/dL), median (IQR)	406 (589)	398 (576)	478 (602)	0.44
Lactate dehydrogenase (units/L), median (IQR)	410 (320)	512 (341)	357 (238)	**0.01**
D-dimer (µg/mL), median (IQR)	6 (19)	8 (23)	6 (17)	0.70
White cell count (x1000/ µL), median (IQR)	8 (6)	8 (5)	8 (7)	0.71
Neutrophils (%), median (IQR)	73 (23)	74 (66)	73 (17)	0.77
Lymphocytes (%), median (IQR)	10 (15)	8 (15)	13 (15)	0.20
Monocytes (%), median (IQR)	6 (6)	6 (6)	6 (5)	0.56
Platelet count (x 1000/µl), median (IQR)	226 (131)	217 (115)	246 (174)	0.24
Albumin (g/dL), median (IQR)	3.0 (1.0)	3.0 (1.0)	3 (1)	**0.03**
High-sensitivity cardiac troponin I (ng/mL), median (IQR)	0.06 (32)	0.06 (63)	0.06 (27)	0.93
Serum ferritin (ng/mL), median (IQR)	841 (1890)	902 (1809)	771 (2249)	0.38
C-Reactive Protein (mg/L), median (IQR)	35 (159)	44 (166)	35 (155)	0.82
Erythrocyte sedimentation rate (mm/hour), median (IQR)	61 (91)	62 (74)	58 (99)	0.96
Total Bilirubin (mg/dL), median (IQR)	0.6 (0.4)	0.7 (1)	0.5 (0.45)	**0.01**

Creatinine (mg/dL), median (IQR)	1.3 (2)	1.3 (2.0)	1.3 (2)	0.26
Blood urea nitrogen (mg/dL), median (IQR)	22 (35)	24 (43)	19 (21)	**0.04**
IL-6 (µg/L), median (IQR)	65 (200)	91 (169)	26 (62)	0.19

Max Laboratory values

Prothrombin Time (sec), median (IQR)	16 (8)	16 (9)	15 (7)	0.43
Partial Thromboplastin Time (sec), median (IQR)	56 (67)	56 (62)	55 (74)	0.95
Fibrinogen level (mg/dL), median (IQR)	598 (778)	411 (686)	618 (831)	0.39
Lactate dehydrogenase (units/L), median (IQR)	581 (462)	658 (583)	482 (289)	0.06
D-dimer (µg/mL), median (IQR)	20 (24)	20 (26)	19 (24)	0.12
White cell count (x 1,000/µL), median (IQR))	14 (13)	14 (14)	14 (13)	0.89
Neutrophils (%), median (IQR)	86 (30)	87 (65)	84 (24)	0.52
Lymphocytes (%), median (IQR)	16 (19)	14 (17)	18 (23)	0.07
Monocytes (%), median (IQR)	9 (7)	9 (8)	10 (7)	0.59
Platelet count (x 1,000/ µL), median (IQR)	346 (191)	320 (169)	349 (177)	0.26
Albumin (g/dL), median (IQR)	3 (1)	3.3 (1)	3.1 (1)	0.12
High-sensitivity cardiac troponin I (ng/mL), median (IQR)	3 (81)	13 (190)	0.43 (51)	0.14
Serum ferritin (ng/mL), median (IQR)	1732 (4087)	2217 (4117)	1349 (2891)	0.19
C-Reactive protein (mg/L), median (IQR)	152 (283)	196 (292)	96 (207)	0.17
Sedimentation rate (mm/hour), median (IQR)	112 (67)	103 (65)	129 (57)	0.06

Total Bilirubin (mg/dL), median (IQR)	0.90 (1.03)	1.25 (2)	0.75 (0.73)	**0.01**
Creatinine (mg/dL), median (IQR)	2.42 (4)	2.68 (4)	1.55 (5)	0.09
Blood urea nitrogen (mg/dL), median (IQR)	54 (62)	65 (69)	49 (57)	0.09
IL-6 (pg/mL), median (IQR)	400 (325)	526 (126)	0.4 (n/a)	0.22

† Normal serum markers ranges (normal low-normal high): Prothrombin Time (11.5-14.5 secs), Partial Thromboplastin Time (25-36 secs), Fibrinogen (150-400 mg/dL), Lactate dehydrogenase (90-180 units/L), D-dimer (0.0-0.5 µg/mL), white cell count (3.9-12 x 1000/ µL), % neutrophils (55-70), % lymphocytes (20-40), % monocytes (2-8), platelet count (150-450 x 1000/ µL), albumin (3.4-5), high-sensitivity cardiac troponin I (0.0-0.04 ng/mL), ferritin (5-116 ng/mL), C-Reactive protein (0-8 mg/L), sedimentation rate (0-20 mm/hour), total bilirubin (0-1.2 mg/dL), creatinine (0.4-1.2 mg/dL), Blood urea nitrogen (6-20 mg/dL), IL-6 (0-2 pg/mL).

Table II: Comparison of initial and maximum laboratory values for patients with stroke and COVID-19 infection

Laboratory values	Initial Median (IQR)	Maximum Median (IQR)	*p-value*
PT (sec)	13 (4)	16 (8)	<0.01
PTT (sec)	31 (9)	56 (67)	<0.01
Fibrinogen level (mg/dL)	406 (589)	598 (778)	<0.01
LDH (units/L)	410 (320)	581 (462)	<0.01
D-dimer (µg/mL)	6 (19)	20 (24)	<0.01
White cell count (x 1000/µL)	8 (6)	14 (13)	<0.01
Neutrophils (%)	73 (23)	86 (30)	<0.01
Lymphocytes (%)	10 (15)	16 (19)	<0.01
Monocytes (%)	6 (6)	9 (7)	<0.01
Platelet count (x 1000/µl)	226 (131)	346 (191)	<0.01
Albumin (g/dL)	3.0 (1.0)	3 (1)	<0.01
High-sensitivity cardiac troponin I (ng/mL)	0.06 (32)	3 (81)	<0.01
Serum ferritin (ng/mL)	841 (1890)	1732 (4087)	<0.01
CRP (mg/L)	35 (159)	152 (283)	<0.01
ESR (mm/hour)	61 (91)	112 (67)	0.04
Total bilirubin (mg/dL)	0.6 (0.4)	0.90 (1.03)	<0.01
Creatinine (mg/dL)	1.3 (2)	2.42 (4)	<0.01
Blood urea nitrogen (mg/dL)	22 (35)	54 (62)	<0.01
IL-6 (µg/L)	65 (200)	400 (325)	0.11

Normal serum markers ranges (normal low-normal high): PT=Prothrombin Time (11.5-14.5 secs), PTT=Partial Thromboplastin Time (25-36 secs), Fibrinogen (150-400 mg/dL), LDH=Lactate dehydrogenase (90-180 units/L), D-dimer (0.0-0.5 µg/mL), white cell count (3.9-12 x 1000/ µL), % neutrophils (55-70), % lymphocytes (20-40), % monocytes (2-8), platelet count (150-450 x 1000/ µL), albumin (3.4-5), high-sensitivity cardiac troponin I (0.0-0.04 ng/mL), ferritin (5-116 ng/mL), CRP=C-Reactive protein (0-8 mg/L), ESR=erythrocyte sedimentation rate (0-20 mm/hour), total bilirubin (0-1.2 mg/dL), creatinine (0.4-1.2 mg/dL), Blood urea nitrogen (6-20 mg/dL), IL-6-Interleukin-6 (0-2 pg/mL).

Table III: Antiphospholipid antibodies characteristics for patients with COVID-19 infection and stroke

Patient	Age (years)	COVID severity*	Stroke Location	Anti-cardiolipin antibody titers†	Anti-β2-glycoprotein-1 Antibody
1	63	Mild symptoms	Lobar	IgG: 23 gpl IgM: 28 mpl	n/a
2	72	Mild/moderate	Cerebellar	IgG <1.6 gpl IgM: 8.9 mpl	n/a
3	64	Severe	Lobar	IgG: 26.9 gpl IgM: 52.1 mpl	n/a
4	40	Severe	Mixed lobar and basal ganglia	IgG <9 g/L gpl IgM: 14.8 mpl	n/a
5	71	Severe	Lobar	IgG <9 gpl IgM: 24.5 mpl	IgG <9 gpl IgM <9 mpl
6	58	Mild/moderate	Lobar, bilateral	IgG <14 gpl IgM <12 mpl	IgG <9 gpl IgM <9 mpl
7	31	Severe	Lobar and brain stem	IgG: 22 gpl IgM: 18 mpl	IgG <9 gpl IgM <9 mpl
8	53	Severe	Lobar and brain stem	IgG: 1.6 gpl IgM: 2.8 mpl	IgG <6.4 gpl IgM <1.1 mpl
9	39	Mild/moderate	Lobar	IgG <2.6 gpl IgM: 1.1 mpl	IgG: 6.7 gpl IgM <1.1 mpl

10	43	Mild/moderate	Transverse sinus thrombosis with lobar involvement	IgG <1.6 gpl IgM: 0.6 mpl	IgG: 0 gpl IgM <3.0 mpl

* Covid severity reported as asymptomatic, mild/moderate, or severe (defined as requiring ICU admission and mechanical   ventilation)

†Antibodies reported as IgM Phospholipid Units (mpl, 1 mpl unit is 1 microgram of IgM antibody) or IgG Phospholipid Units (gpl; 1 gpl unit is 1 microgram of IgG antibody). Reference values: negative: 0-14 mpl or gpl; indeterminate: 15-19 mpl or gpl; low to moderately positive: 20-80 mpl or gpl; high positive: $\geq$ 81 mpl or gpl.