

**Supplementary Table 1: Demographic and clinical characteristics of patients on admission and treatment during hospitalization.**

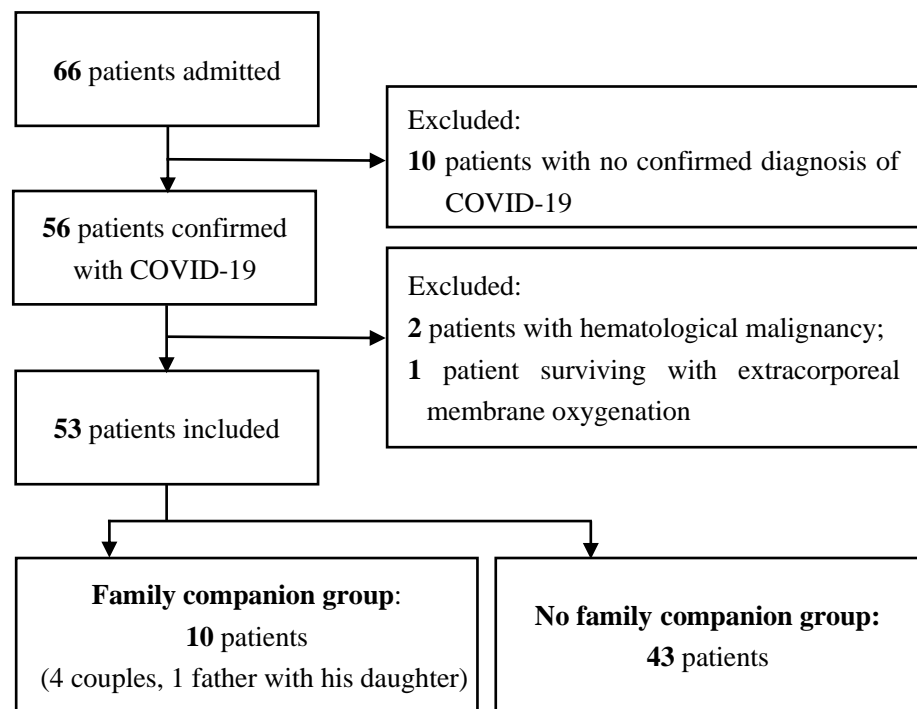
Items	Total (n=53)	FC (n=10)	nFC (n=43)	Statistics	P values
Demographic characteristics					
Age, years	66 (52–72)	73 (72–76)	64 (47–69)	2.789	0.005*
Female	28 (52.8)	5 (50.0)	23 (53.5)	0.040	0.559 <sup>†</sup>
Comorbidity					
Hypertension	25 (47.2)	9 (90.0)	17 (39.5)	-	0.005 <sup>‡</sup>
Type 2 diabetes	23 (43.4)	7 (70.0)	16 (37.2)	-	0.063 <sup>‡</sup>
Cardiovascular disease	9 (17.0)	3 (30.0)	6 (14.0)	-	0.218 <sup>‡</sup>
Chronic lung disease	6 (11.3)	2 (20.0)	4 (9.3)	-	0.315 <sup>‡</sup>
qSOFA	0.0 (0.0–1.0)	1.0 (0.8–1.0)	0.0 (0.0–1.0)	1.795	0.073*
Disease severity				-	0.721 <sup>‡</sup>
Moderate	26 (49.1)	4 (40.0)	22 (51.2)		
Severe	18 (34.0)	4 (40.0)	14 (32.6)		
Critical	9 (17.0)	2 (20.0)	7 (16.3)		
Laboratory findings					
D-dimer, µg/mL	1.13 (0.44–2.18)	1.23 (0.49–2.03)	1.13 (0.40–2.29)	0.102	0.919*
White blood cell count, ×10 <sup>9</sup> /L	5.24 (4.33–7.67)	5.67 (4.30–6.80)	5.20 (4.28–7.76)	0.250	0.803*
Lymphocyte count, ×10 <sup>9</sup> /L	1.09 (0.52–1.51)	0.89 (0.48–1.61)	1.22 (0.52–1.50)	0.557	0.577*
Creatinine, µmol/L	75 (60–93)	71 (49–87)	75 (61–94)	1.001	0.317*
High-sensitivity cardiac troponin I, pg/mL	3.6 (1.9–15.5)	5.5 (3.4–7.9)	3.5 (1.9–17.3)	0.492	0.622*
Serum ferritin, µg/L	560.2 (283.6–882.4)	604.0 (345.8–775.4)	524.2 (240.3–1188.0)	0.750	0.453*
Interleukin-6, pg/mL	11.11 (2.18–39.81)	10.35 (2.69–45.14)	11.11 (2.03–39.16)	0.000	1.000*
High-sensitivity C-reactive protein, mg/L	25.0 (59.6–3.3)	32.2 (7.15–93.2)	22.6 (2.7–58.5)	0.750	0.453*
Chest CT imaging features <sup>§</sup>					
Consolidation	37 (71.2)	9 (90.0)	28 (66.7)	-	0.120 <sup>‡</sup>
Ground-glass opacity	50 (96.2)	10 (100.0)	40 (95.2)	-	0.527 <sup>‡</sup>
Bilateral pulmonary Infiltration	44 (84.6)	8 (80.0)	36 (85.7)	-	0.546 <sup>‡</sup>
Treatment during hospitalization					
Antiviral treatment	52 (98.1)	10 (100.0)	42 (97.7)	-	0.811 <sup>‡</sup>
Antibiotics	28 (52.8)	6 (60.0)	22 (51.2)	-	0.441 <sup>‡</sup>
Corticosteroids	18 (34.0)	1 (10.0)	17 (39.5)	-	0.075 <sup>‡</sup>
Intravenous immunoglobulin	12 (22.6)	1 (10.0)	11 (25.6)	-	0.273 <sup>‡</sup>

Data are presented as median (interquartile range) or *n* (%). \*Mann-Whitney *U* test. <sup>†</sup> $\chi^2$  test. <sup>‡</sup>Fisher's exact test. <sup>§</sup>CT imaging of one case in nFC group was not available. FC: Family companion; nFC: No family companion; qSOFA: Quick sepsis-related organ failure assesment; CT: Computed tomography; -: Not available.

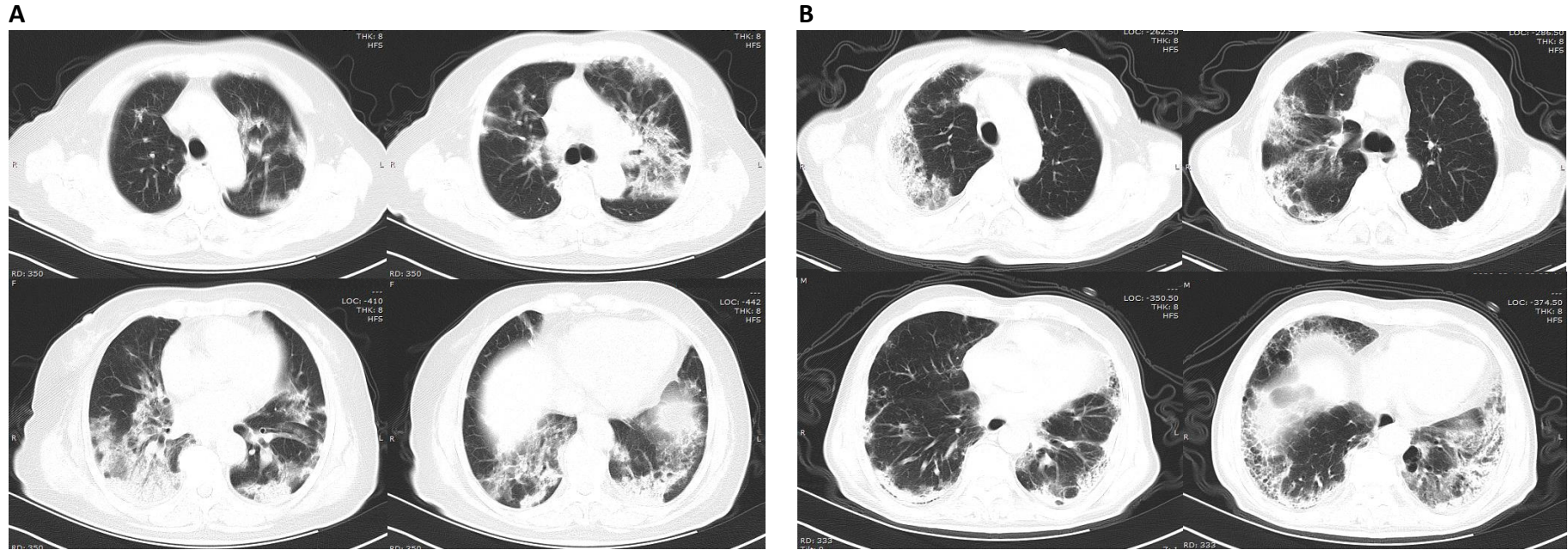
**Supplementary Table 2: Clinical information at admission, medication treatment and the outcomes of patients in the family companion group.**

Items	Family 1		Family 2		Family 3		Family 4		Family 5	
	Husband 1	Wife 1	Husband 2	Wife 2	Husband 3	Wife 3	Husband 4	Wife 4	Father	Daughter
Age, years	72	71	77	72	76	72	73	74	77	50
Disease severity	Moderate	Critical	Severe	Moderate	Moderate	Severe	Severe	Severe	Critical	Moderate
Comorbidity										
Hypertension	+	+	+	-	-	+	+	+	+	+
Type 2 Diabetes	+	+	+	+	-	+	-	+	-	+
Other	-	Old cerebral infarction	-	Paroxysmal atrial tachycardia	Coronary heart disease	Coronary heart disease	-	-	Chronic obstructive pulmonary disease	Left pneumonectomy*
On admission										
Respiratory rate, beats/min	22	30	23	28	20	20	30	30	32	22
SpO <sub>2</sub> on room air, %	98	86	86	97	98	95	87	91	80	95
Blood pressure, mmHg	140/83	142/78	175/100	125/70	120/80	117/72	176/110	148/84	124/84	130/94
Pulse, beats/min	109	95	101	98	74	95	93	105	120	120
Temperature, °C	36.6	36.7	36.8	35.6	37.4	37.6	36.9	37.0	37.1	36.3
qSOFA score	1	1	1	1	0	0	1	1	1	1
D-dimer, µg/mL	1.18	4.59	1.03	0.28	1.79	0.56	0.53	1.43	2.67	0.38
Treatment										
Antiviral treatment	+	+	+	+	+	+	+	+	+	+
Antibiotics	-	+	+	-	+	+	-	+	+	-
Corticosteroids	-	-	-	-	-	-	-	-	+	-
Intravenous immunoglobulin	-	-	-	-	-	-	-	-	+	-
Maximum oxygen support	Nasal canal	NIV	Oxygen mask	Nasal canal	Nasal canal	Nasal canal	Nasal canal	Nasal canal	NIV	Nasal canal
Outcome	Survival	Survival	Survival	Survival	Survival	Survival	Survival	Survival	Death	Survival

\*Left pneumonectomy due to tuberculosis 17 years ago. SpO<sub>2</sub>: Pulse oxygen saturation; qSOFA: Quick sepsis-related organ failure; NIV: Non-invasive mechanical ventilation.



**Supplementary Figure 1: Flow chart of patient inclusion. COVID-19: Coronavirus disease 2019.**



**Supplementary Figure 2:** The Chest CT images of the two critical COVID-19 patients in family companion group who had once received non-invasive ventilation support. (A) CT images of a 71 year-old female (wife 1) on day 17 after symptoms onset. She was accompanied by her husband throughout her treatment. She recovered and were off mechanical ventilation successfully. (B) CT images of a 77 year-old male on day 21 after symptoms onset. He was accompanied by his daughter, and was stabilized with treatment. But after his daughter's discharge, he was depressed and developed delirium, with onset of acute cardiac injury and deterioration of respiratory failure. He died 6 days later. CT: Computed tomography; COVID-19: Coronavirus disease 2019.