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Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

This appendix has been corrected. The corrected version first appeared at thelancet.com/respiratory on February 25, 2020.

Supplement to: Xu Z, Shi L, Wang Y, et al. Pathological findings of COVID-19 associated with acute respiratory distress syndrome. *Lancet Respir Med* 2020; published online Feb 17. http://dx.doi.org/10.1016/S2213-2600(20)30076-X.

Supplementary information for

First pathological findings in an ARDS-associated death case with 2019-nCoV infection

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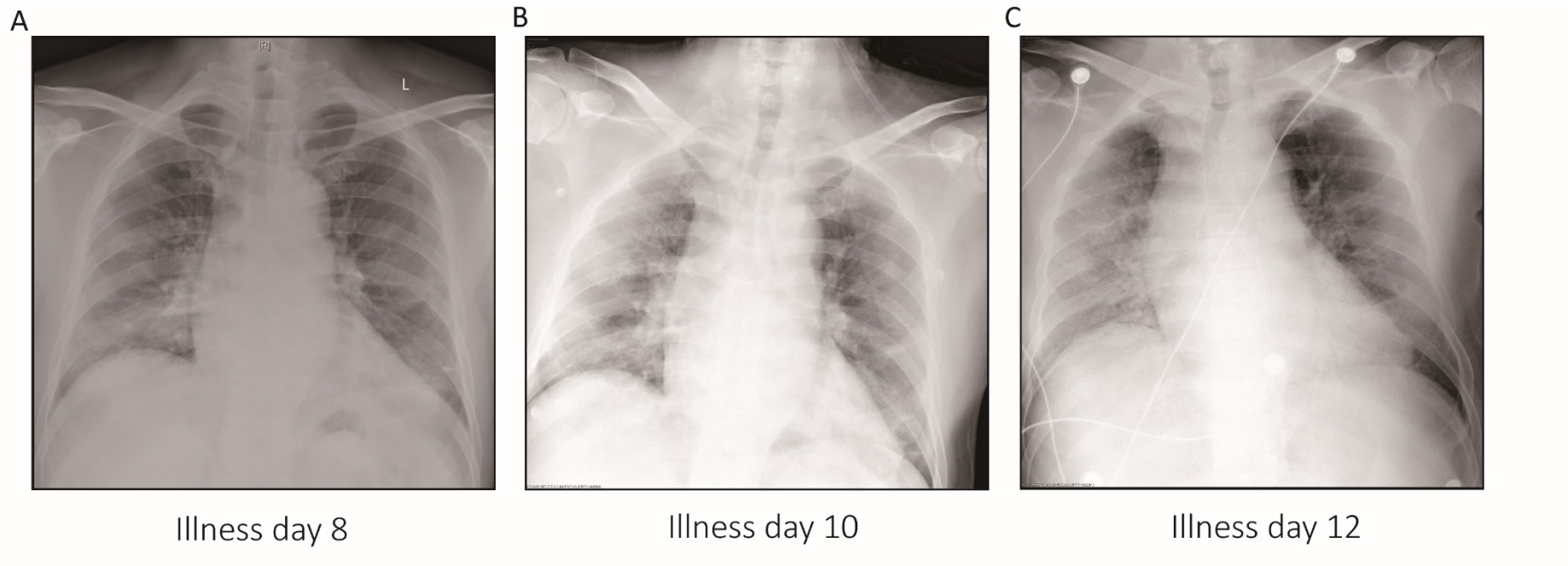

Fig. S1. Chest radiographs on day 8, day 10 and day 12 since the onset of illness. (A) The brightness of both lungs was decreased and multiply patchy shadows were observed. Heart shadow presents in the normal range roughly. The diaphragmatic surface was light and smooth, rib phrenic angle was sharp (illness day 8). (B) Diffuse ground-glass opacity was found in both lungs (illness day 10). (C) Chest radiograph showed progressive infiltrate, diffuse gridding shadow appeared in both lungs. Small area emphysemas were observed in upper and lower lobes of left lung (illness day 12).

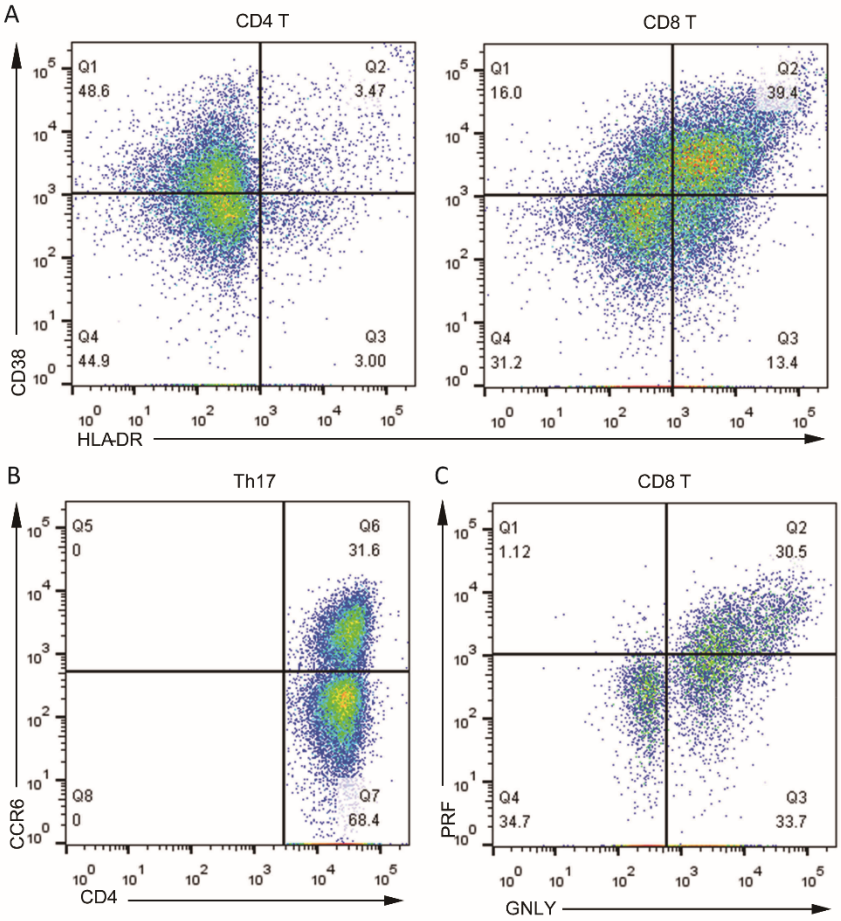

Fig. S2 Phenotypic analysis of circulating T cells. (A) Both CD4 and CD8 T cells were hyper activated. Expression of HLA-DR and CD38 on T cells were detected by flow cytometry. (B) Frequency of Th17 (CD4+ CCR6+) subset among CD4 T cell was detected by flow cytometry. (C) Expression of cytotoxic granules in CD8 T cells. Intracellular expression of GNLY and perforin were detected by using flow cytometry.

Table 1. Clinical Laboratory tests.

Measure	Reference range	Illness Day 8 Fever Clinic	Illness Day 10 Hospital Day 2	Illness Day 11 Hospital Day 3	Illness Day 12 Hospital Day 4	Illness Day 14 Hospital Day 6
Complete blood count						
White-cell count (×10^9/L)	3.97-9.15	3.19‡	2.23‡	7.07		6.28
Absolute neutrophil count (×10^9/L)	2-7	2.33‡	1.840‡	6.550		5.700
Absolute Lymphocyte count (×10^9/L)	0.8-4.0	0.66‡	0.280‡	0.340‡		0.310‡
Absolute monocyte count (×10^9/L)	0.12-1.0	0.20	0.110‡	0.160		0.250
Red-cell count (×10^12/L)	4.09-5.74	4.48	4.30	4.16		4.29
Hemoglobin (g/L)	131-172	143	135.00	134.00		134.00
Platelet count (×10^9/L)	85-303	124	154.00	188.00		205.00
Biochemical test						
Total protein (g/L)	60-83		60		55‡	56‡
Albumin (g/L)	35-55		34‡		30‡	30‡
Prealbumin (mg/L)	160-400		90‡			120‡
Alanine aminotransferase (ALT) (U/L)	5-40		69§	64§	70§	59§
Aspartate aminotransferase (AST) (U/L)	8-40		111§		83§	40
Lactate dehydrogenase (LDH) (U/L)	109-245		581§		617§	825§
Urea (mmol/L)	2.9-8.2		3.8		3.94	5.9
Creatinine(umol/L)	62-115		79		77	67
Sodium (mmol/liter)	136-145		135		135	145
Potassium (mmol/liter)	3.5-5.2		3.8		3.0‡	3.5
Chloride (mmol/liter)	93-108		97.6		98.7	109.3§
Arterial blood gas (ABG) **analysis**						
PH	7.35-7.45		7.5§	7.47§		7.27‡
Pressure of oxygen in arterial blood (mmHg)	80-100		63‡	74‡		28‡
Pressure of carbon dioxide in arterial blood (mmHg)	35-45		34	33‡		39
Base excess (mmol/L)	-2 - +2		3.2§	0.0		-9.1‡
Alveolar-arterial oxygen partial pressure difference (mmHg)			135.7§	331.2§		510.3§
Coagulation profile						
Prothrombin time (sec)	10.2-14.3		12.1	12.5		14.9§
International normalized ratio	0.8-1.2		1.05	1.09		1.31§
Fibrinogen (g/L)	2.0-4.0		5.28§	3.70		2.90
CRP (mg/L)	0.068-8.2	33.0§	44.3§	19.46§	19.73§	26.1§
Procalcitonin (ng/ml)	0-0.5		0.181	0.099	0.089	
Interleukin-6 (pg/ml)	0-7		18.89§	37.4§		18.25§

ABG analysis of Jan 27 was tested one hour before the patient died.

‡ The value in the patient was below normal.

§ The value in the patient was above normal.