

First Author (Year)	Type of study	Sample size	Demographic Items (Age, Year) and (sex)	Demographic findings	Laboratory Items	Laboratory findings			
1. Cao (2020) (38)	cohort	102	Age(y)	Median(IQR) N(%)		Median(IQR), %, n=102			
			Sex			Admission	Hospitalization		
			Age	54 (37-67)	Lymphocyte count, *10 ⁹ /L ≤1.1 * 10 ⁹ /L	0.9(0.8-1.2) 63.7%	0.7(0.6-1.1) 76.5%		
			Female	49 (48.0)	C-reactive protein, mg/L 10mg/L≥	24.8(6.7-55.7) 51.0%	32.9(13.0- 84.7) 62.7%		
					Procalcitonin level, ng/mL 0.1ng/ml>	---- 42.7%	---- 58.6%		
					ALT, U/L 40 U/L≥	23(16-40) 24.8%	38(19-72) 47.5%		
					Blood urea nitrogen, mmol/L 7.6 mmol/L≥	4.33(3.45-5.46) 12.9%	5.01(3.78-7.39) 26.7%		
					UA, umol/L 360umol/L≥	269(228-347) 23.8%	280(236-387) 29.7%		
					Cys-C, mg/L 1.2 mg/L≥	0.99(0.82-1.13) 19.8%	1.03(0.84-1.31) 34.7%		
					D-dimer, mg/L 500 mg/L≥	195(133-432) 20.8%	525(255-595) 52.5%		
					Hypersensitive troponin I, pg/mL 26 pg/ml>	7.6(3.2-11.0) 12.7%	8.0(3.0-35.7) 27.3%		
					BNP, pg/ml 100 pg/mL≥	12.2(0-63.1) 14.3%	44.4(10.0-175.8) 30.8%		
					NT-proBNP, pg/mL 900 pg/mL>	417(132-1800) 37.5%	448(231-2100) 62.5%		
			2. Chen (2020) (39)	retrospective, single-center study	249	Age(y)	Median(IQR) N(%)		Median(IQR)
						Sex		White blood cells (× 10 ⁹ per L)	4.71(3.80-5.86)
						Age	51(36-64)	Lymphocyte(×10 ⁹ per L)	1.12(0.79-1.49)
						Male	126(50.6%)	C-reactive protein (mg/L)	12(4.4-29.4)
								Erythrocyte sedimentation rate (mm/h)	54(33-90)
								Alanine aminotransferase(U/L)	23(15-33)
								Aspartate aminotransferase (U/L)	25(20-33)
		Albumin (g/L)				40.8(37.9-43.0)			
		Lactate dehydrogenase (U/L)				229(195-291)			
		Lactate (mmol/L)				1.4(1.1-2.1)			
		Estimated glomerular filtration rate (mL/min/1.73m ²)				109.2(95.3-127.2)			
		CD4 T cells counts (cells/uL)				431(299-637)			
		CD4/CD8 ratio				1.68(1.24-1.33)			
3. Chen (2020) (40)	----	32	Age(y)	Children Mean±SD n(%)		Children, n=12, Mean±SD			
			Sex		Hemoglobin, g/L	130.30±13.84			
					Platelets, 10 ⁹ /L	278.60±133.340			
			Age	14.50 (9.25±15.75)	WBC cells,× 10 ⁹ /L	6.33±1.78			
					ALT, U/L	28.8±16.5			
					AST, U/L	23.8±7.77			
		CK-MB,U/L	14.7±8.13						
		Male	6(50%)	sCr, umol/L	54.5±18.72				

					BUN,mmol/L	3.44±0.83
					PT, s	13.5±2.15
						Children, n= 12
						Adults, n=20
					Total T cells (x10 ⁹ /L)	2.13±0.72
					CD4+ T cells (cells/ul)	598.10 ± 215.10
					CD8+ T cells (cells/ul)	442.50 ± 117.50
					Total B cells (x10 ⁶ /L)	194.70 ± 75.42
					NK cells(x10 ⁶ /L)	208.2±117.4
					IgM(g/L)	1.22±0.39
					IgG(g/L)	10.86±1.44
					C3(g/L)	1.37 ± 0.10
					IL-6 (ng/ml)	8.44 ± 2.65
					CRP (mg/L)	11.51 ± 2.39
					PCT(ng/ml)	0.18 ± 0.066
						0.11±0.025
4. Chen (2020) (41)	retrospective, single-centre study	99	Age(y) sex	Mean(SD) n(%)	Mean(SD), Median(IQR), n(%, n/N(%))	
			Age	55.5(13.1)	Leucocytes (× 10 ⁹ per L)	7.5(3.6)
			Female	32(32%)	Increased	24(24%)
					Decreased	9(9%)
					Neutrophils (× 10 ⁹ per L)	5.0(3.3-8.1)
					Increased	38(38%)
					Lymphocytes (× 10 ⁹ per L)	9(0.5)
					Decreased	35(35%)
					Platelets (× 10 ⁹ per L)	213.5(79.1)
					Increased	4(4%)
					Decreased	12(12%)
					Haemoglobin (g/L)	129.8(14.8)
					Decreased	50(51%)
					Coagulation function	---
					Activated partial thromboplastin time (s)	27-3 (10-2)
					Increased	6 (6%)
					Decreased	16 (16%)
					Prothrombin time (s)	11-3 (1-9)
					Increased	5 (5%)
					Decreased	30 (30%)
					D-dimer (µg/L)	0-9 (0.5-2.8)
					Increased	36 (36%)
					Blood biochemistry	---
					Albumin (g/L)	31-6 (4-0)
					Decreased	97 (98%)
					Alanine aminotransferase(U/L)	39-0 (22-0-53-0)
					Increased	28 (28%)
					Aspartate aminotransferase(U/L)	34-0 (26-0-48-0)
					Increased	35 (35%)
					Total bilirubin (µmol/L)	15-1 (7-3)
		Increased	18 (18%)			
		Blood urea nitrogen (mmol/L)	5-9 (2-6)			
		Increased	6 (6%)			
		Decreased	17 (17%)			
		Serum creatinine (µmol/L)	75-6 (25-0)			
		Increased	3 (3%)			
		Decreased	21 (21%)			

				PaCO2 (mmHg)	42 (39,45)				
				Lactate (mmol/L)	1.8 (1.3,2.2)				
6. Chen (2020) (43)	retrospective investigation	203	Age(y)	All Median(IQR) n(%)	Median(IQR)				
			Sex		Total N=203	Age<65 N=148	Age≥65 N=55		
			Age		54(20-91)	BLOOD ROUTINE			
			Male		108(53.2)	WBC COUNT(× 10 ⁹ /L)	5.17(0.8-25.7)	4.8(1-17)	6.1(2-25.7)
						Neutrophil Count(× 10 ⁹ /L)	3.7(0-21)	3.3(0-16)	4.7(1-21)
						Lymphocyte count (× 10 ⁹ /L)	0.98(0-6.0)	1.0(0-20.0)	0.89(0-6.0)
						Platelet (× 10 ⁹ /L)	170(2-530)	178(2-530)	162(22-414)
						Blood biochemistry			
						Alanine aminotransferase(U/L)	33.9(5-279)	29.5(5-200)	41.3(8-279)
						Aspartate aminotransferase(U/L)	42.8(6-209)	34.5(16-159)	63.1(18-209)
						Albumin (g/L)	37.2(18-72)	39(18-72)	33.3(25-43)
						Globuline (g/L)	29.5(18-86)	29(18-86)	30(20-48)
						Creatinin(μmol/L)	87(37-1066)	82(38-1066)	104.2(37-787)
						Lactate dehydrogenase (U/L)	304(99-849)	268(99-849)	395(153-775)
						Creatine kinase (U/L)	168.1(13-3051)	178(25-3051)	141.2(13-972)
						FBS(mmol/L)	6.0(4-20)	6.5(4-20)	7.5(4-20)
						Coagulation function			
						D-dimer (ng/mL)	1367.5(1-105063)	1372(1-1050630)	1354(108-18825)
						Infection related biomarkers			
						ESR(mm/h)	32.5(2-140)	28(2-140)	45(9-96)
						CRP (mg/L)	51.9(0-293)	41(0-293)	85.3(2-284)
						Interleukin-6 (pg/mL)	1.4(0-200)	1.4(0-200)	1.4(0-200)
						Procalcitonin(ng/ml)	1.4(0-200)	1.72(0-200)	0.48(0-8)
7. Chen (2020) (44)	Cohort	70 COVID-19 and 66 non- COVID-19 pneumonia	Age(y)	COVID-19 Mean±SD n(%)	Mean±SD n(%)				
			Sex		Non-COVID-19 (n = 66)	COVID-19 (n =70)			
			Age		42.93 ± 13.32	Wbc count (× 10 ⁹ /L)	11.48 ± 5.36	5.27 ± 2.33	
			Male		41 (58.57%)	Wbc count category	---		
			Female		29 (41.43%)	Low	(0.00%)	2 (2.86%)	
						Normal	27 (40.91%)	63 (90.00%)	
						High	39 (59.09%)	5 (7.14%)	
						Lymphocyte count (× 10 ⁹ /L)	1.57 ± 1.33	1.25 ± 0.68	
						Lymphocyte count category	---		
						Low	24 (36.36%)	32 (45.71%)	
						Normal	35 (53.03%)	37 (52.86%)	
						High	7 (10.61%)	1 (1.43%)	
						Neutrophil count (× 10 ⁹ /L)	8.97 ± 4.90	3.53 ± 2.17	
						Neutrophil count category	---		
						Low	3 (4.55%)	8 (11.43%)	
						Normal	23 (34.85%)	59 (84.29%)	
						High	40 (60.61%)	3 (4.29%)	
						CRP(mg/L)	69.30 ± 65.88	26.37 ± 30.97	

				Procalcitonin (ng/mL)		3.36 ± 8.98		0.26 ± 0.84				
8. Chen (2020) (45)	retrospective study	48	Age(y) Sex	All Mean±SD n(%)		Median(IQR), Mean±SD						
						All (N = 48)	Moderate (n = 21)	Severe (n = 10)	Critically Ill (n = 17)			
						Age	18.1 ± 64.6	WBC count, ×10 ⁹ /L	5.75 (4.13–8)	5.2 (4.6–6.1)	4.1 (3.3–5.78)	8.4 (6.1–10.6)
						Male	37 (77.1)	Neutrophil count, ×10 ⁹ /L	3.8 (2.7–6.6)	3.4 (2.8–4.3)	2.9 (2.0–3.78)	7.1 (5.3–9.2)
						Female	11 (22.9)	Lymphocyte count, ×10 ⁹ /L	0.95 ± 0.54	1.25 ± 0.46	0.90 ± 0.30	0.59 ± 0.55
								IL-6, pg/mL	18.1(4.5–49)	10.4 (3.8–31.0)	5.8 (3.1–16.9)	64.0 (25.6–111.9)
								PCT, ng/mL	0.06(0.04–0.13)	0.04 (0.03–0.06)	0.04 (0.04–0.06)	0.20 (0.1–0.6)
								TnT, ng/mL	0.01(0.008–0.03)	0.008 (0.005–0.01)	0.009 (0.007–0.01)	0.03 (0.02–0.06)
								sCr, μmol/L	64.5(55.0–77.0)	63.0 (50.0–71.0)	56.0 (52.0–73.8)	77.0 (64.0–101.0)
								BUN, mmol/L	5.6(3.8–7.9)	4.0 (3.5–5.1)	4.2 (2.6–7.8)	9.3 (7.5–13.7)
9. Chen (2020) (46)	retrospective single-center study	42	Age(y) Sex	All Median(IQR) n(%)		Median(IQR), n(%)						
						All patients (N = 42)	Patients tested SARS-CoV-2 RNA (+) in feces (n = 28)	Patients tested SARS- CoV-2 RNA (-) in feces (n = 14)				
						Age	51 (42.75-62)	Hematological examination				
						Male	15 (35.71%)	WBC, ×10 ⁹ /L	4.05 (2.98-6.09)	4.05 (3.33-6.53)	4.03 (2.6-5.44)	
						Female	27 (64.29%)	Neutrophil, ×10 ⁹ /L	2.5 (1.72-3.78)	2.55 (2.17-4.27)	2.31 (1.19-3.48)	
								Lymphocyte, ×10 ⁹ /L	0.93 (0.65-1.25)	0.88 (0.62-1.30)	2.31 (1.19-3.48)	
								Red blood cell, ×10 ¹² /L	4.06 (3.65-4.33)	4.02 (3.67-4.5)	0.97 (0.64-1.24)	
								Haemoglobin, g/L	130.6(119.4-139.28)	131.5 (121.03-141.83)	4.07 (3.49-4.3)	
								Platelet, ×10 ⁹ /L	186.5 (154-224)	190 (154-213)	127.15 (112.45-136)	
								Alanine aminotransferase, U/L	22 (16.75-33)	24 (19.25-33)	173 (158-263.25)	
								Aspartate aminotransferase, U/l	26 (18.75-39)	26.5 (22.25-41)	20 (15-29.25)	
								Total bilirubin, μmol/L	9.4 (8.18-13.2)	10.2 (8.25-13.08)	20.5 (17-33.25)	
								Lactate dehydrogenase, U/L	191.5 (154.5-279.25)	198 (166.75-278.5)	9.15 (8.1-13.28)	
								Blood urea nitrogen, mmol/L	4.04 (3.4-4.84)	4.36 (3.45-4.75)	161(149.75-279.5)	
								Creatinine, μmol/L	62.8 (51.38-80.03)	68.2 (50.9-81.45)	3.59 (2.89-5.07)	
								Prothrombin time, s	12.3 (11.7-13.03)	12.25 (11.7-13.23)	61 (51.38-74.53)	
								Activated partial thromboplastin time, s	31.4 (28.73-32.53)	31.35 (29.38-32.48)	12.4 (11.88-13.03)	
								D-dimer, ng/mL	285.5 (137-664.75)	325.5 (161.5-807.5)	31.5 (28.18-33.73)	
								Procalcitonin, ng/mL	0.05 (0.05-0.05)	0.05 (0.05-0.05)	223(120.5-619.75)	
								Interleukin-6, pg/mL	12.88 (9.47-24.04)	17.99 (10.96-31.86)	0.05 (0.05-0.05)	
								CRP, mg/L	17.3 (5.68-40.23)	20 (7.88-45.1)	10.02 (6.71-13.24)	
								ESR, mm/h	23 (10.75-32.25)	23.5 (8.75-34.75)	8.45 (3.18-37.03)	
								Stool routine	---			
								Yellow	41 (97.62%)	27 (96.43%)	22 (10.75-28)	
								Greenish	1 (2.38%)	1 (3.57%)	14 (100%)	
								Normal or loose	35 (83.33%)	22 (78.57%)	0 (0%)	
								Watery	7 (16.67%)	6 (21.43%)	13 (92.86%)	
								Occult blood	1 (2.38%)	1 (3.57%)	1 (7.14%)	
								Urine routine	---		0 (0%)	
								Occult blood	7 (16.67%)	4 (14.29%)	3 (21.43%)	
								Ketone	5 (11.9%)	4 (14.29%)	1 (7.14%)	
								Leukocyte	3 (7.14%)	2 (7.14%)	1 (7.14%)	
								Protein	2 (4.76%)	2 (7.14%)	0 (0%)	

10. Cheng (2020) (47)	Retrospective study	33	Age (y) Sex	Mean±SD n(%)		Leukocyte count (× 10 ⁹ cells/L)	Median(IQR), Mean±SD			
				COVID-19	Non- COVID-19		Patients With COVID-19 (n = 11)	Patients With Non-COVID-19 (n = 22)		
			Age	50.36 ± 15.50	43.59 ± 16.02	Neutrophil count (× 10 ⁹ cells/L)	3.13(2.02–3.67)	3.49 (2.50–5.71)		
			Male	8 (72.7)	7 (31.8)	Lymphocyte count (× 10 ⁹ cells/L)	1.10(1.03–1.33)	1.24 (0.98–1.65)		
						Platelet count (× 10 ⁹ cells/L)	143.50±32.63	209.20 ± 57.42		
						Hemoglobin level (g/L)	141.00(133.00–142.00)	136.00 (127.80–143.50)		
						C-reactive protein level (mg/L)	14.30(9.00–27.20)	12.75 (2.53–85.00)		
						ESR (mm/h)	70.00(39.00–77.00)	Not accessible		
						b Transferrin level(g/L)	1.80 (1.64–2.12)	Not accessible		
			11. Deng (2020) (48)	Retrospective Study	225	Age (y) Sex	Median(IQR) n(%)		WBC, ×10 ⁹ /L	Median(IQR)
Death group	Recovered group	Death group (n=109)					Recovered group (n=116)			
Age	69(62, 74)	40(33, 57)				Pre-treatment	Post-treatment	Pre-treatment	Post-treatment	
Male	73 (67.0)	51 (44.0)				7.23(4.87, 11.17)	12.26(7.92,17.51)	4.52(3.62, 5.88)	6.65(4.82-9.52)	
						Lymphocyte, ×10 ⁹ /L	0.63(0.40, 0.79)	0.39(0.24,0.79)	1.00(0.72, 1.27)	1.53(1.14, 2.05)
						ALT, U/L	22.00(15.00, 34.00)	27.00(20.00,47.00)	18.70(13.00,30.38)	23.2(15.15,38.93)
						AST, U/L	34.00(27.00, 47.00)	36.00(24.00,47.50)	22.00(17.65,31.75)	18.90(15.65,26.50)
						Creatinine, μmol/L	89.00(72.00,133.50)	87.00(61.50,181.50)	65.00(54.60,78.75)	60(52.4, 71.50)
						CRP, mg/L	109.25(35.0, 170.28)	81.6(27.23,179.08)	3.22 (1.04, 21.8)	0.50 (0.11, 2.08)
12. Ding (2020) (50)	retrospective study	112				Age(y)	Mean±SD(IQR) n(%)	WBC count, (10 ⁹ /L)	Mean±SD(IQR)	
			Sex	All patients (n=112)						
			Age	55.8 ± 16.1 (12–89)	5.6 ± 2.9 (0.9–16.4)					
			Male	51 (45.54 %)	4.2 ± 2.9 (0.4–15.7)					
			Female	61 (54.46 %)	1.0 ± 0.5 (0.1–2.3)					
					Neutrophil count, (10 ⁹ /L)					
					Lymphocyte count, (10 ⁹ /L)					
					Monocytes count, (10 ⁹ /L)	0.4 ± 0.2 (0.1–1.1)				
					Rbc count, (10 ¹² /L)	4.1 ± 0.5 (2.9–6.1)				
					Blood platelet, (10 ⁹ /L)	210.4 ± 91.1 (62.0–469.0)				
					Hemoglobin, (g/L)	130.0 ± 15.5 (78.8–184.0)				
					CRP, (mg/L)	51.5 ± 81.8 (0.2–646.0)				
					ESR, (mm/h)	29.1 ± 25.6 (2.0–119.0)				
					Alanine aminotransferase, (U/L)	34.8 ± 31.6 (8.0–175.0)				
					Aspartate aminotransferase, (U/L)	32.3 ± 18.5 (9.0–90.0)				
					Total bilirubin, (μmol/L)	13.2 ± 6.3 (4.6–38.2)				
					Albumin, (g/L)	37.5 ± 6.5 (23.3–74.3)				
					Globulin, (g/L)	30.0 ± 4.3 (22.1–43.5)				
					Urea (mmol/L)	4.8 ± 2.0 (1.4–14.3)				
		Creatinine, (μmol/L)	68.4 ± 19.2 (34.4–158.7)							
		Fasting blood glucose, (mmol/L)	6.8 ± 2.6 (3.7–16.8)							

					Lactate dehydrogenase, (U/L)	260.5 ± 175.7 (46.0–1305.0)			
					Creatine kinase, CK (U/L)	119.4 ± 149.5 (1.7–882.0)			
					Creatine kinase isoenzyme MB, CK-MB (U/L)	13.6 ± 6.6 (2.0–44.0)			
					Interleukin-6, (pg/mL)	30.6 ± 50.4 (0.1–309.0)			
					Prothrombin time, (s)	12.9 ± 1.9 (10.4–27.4)			
					D-dimer (ng/mL)	2405.8 ± 7079.0 (33.0–43142.0)			
13. Du (2020) (50)	Retrospective Case sery	67	Age(y)	Total Median n(%)		Mean±SD, n(%)			
			Sex						
			Age	34.10		Total (N = 67)	Children (n = 14)	Adults (n = 53)	
			Male	32 (47.8%)	WBC (×10 ⁹ /L)	5.33 ± 1.84	5.93 ± 2.52	5.17 ± 1.60	
			Female	35 (52.2%)	Decreased	---	4(28.6%)	10(18.9%)	
					N (× 10 ⁹ /L)	2.88 ± 1.45	1.76 ± 0.53	3.18 ± 1.45	
					Decreased	---	9(0%)	6(11.3%)	
					L (× 10 ⁹ /L)	2.02 ± 1.36	3.68 ± 2.04	1.57 ± 0.59	
					Decreased	---	1 (7.1%)	5(9.4%)	
					M (× 10 ⁹ /L)	0.36 ± 0.15	0.36 ± 0.11	0.36 ± 0.16	
					Increased	---	0 (0%)	(0%)	
					HBG (g/L)	137.3 ± 20.02	131.64 ± 12.92	138.83 ± 21.38	
					Increased	---	1 (7.1%)	2(2.8%)	
					PLT (× 10 ⁹ /L)	213.4 ± 64.62	243.79 ± 76.16	205.29 ± 59.36	
					Increased	---	2(14.3%)	2(2.8%)	
					CRP (mg/L)	9.05 ± 15.81	1.26 ± 2.82	11.19 ± 17.21	
					Increased	---	1 (7.1%)	18(34%)	
					PCT (µg/L)	0.05 ± 0.05	0.05 ± 0.02	0.05 ± 0.06 13	
					Increased	---	5(35.7%)	(24.5%)	
					LDH (U/L)	222.6 ± 71.68	298.63 ± 92.95	205.57 ± 53.80	
					Increased	---	7 (50%)	10(18.9%)	
					CK (U/L)	94.38 ± 57.11	107.54 ± 44.70	91.08 ± 59.73	
					Increased	---	4(28.6%)	8(15.1%)	
					Myo (µg/L)	18.84 ± 11.61	15.33 ± 7.92	19.50 ± 12.13	
					Increased	---	0 (0%)	2(3.8%)	
					Ctn (µg/L)	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.00	
					Increased	---	0 (0%)	0 (0%)	
					BUN (mmol/L)	4.07 ± 1.21	4.23 ± 1.12	4.03 ± 1.24	
					Increased	---	0 (0%)	1(1.9%)	
					Cr (µmol/L)	59.80 ± 14.29	43.08 ± 11.20	64.30 ± 11.44	
					Increased	---	0 (0%)	0 (0%)	
					PT (s)	12.61 ± 0.99	12.53 ± 0.89	12.63 ± 1.01	
		Increased	---	1(7.1%)	7(13.2%)				
		D-dimer (µg/ml)	0.49 ± 0.37	0.47 ± 0.26	0.50 ± 0.40				
		Increased	---	5(35.7%)	19(35.8%)				
		ALT (U/L)	28.42 ± 28.31	21.29 ± 29.18	30.35 ± 28.05				
		Increased	---	1 (7.1%)	9(17%)				
		AST (U/L)	25.47 ± 12.77	29.00 ± 8.84	24.52 ± 13.54				
		Increased	---	1 (7.1%)	7(13.2%)				
		IL-6 (pg/ml)	7.94 ± 12.98	2.50 ± 2.83	9.16 ± 14.04				
		Increased	---	1(7.1%)	4(7.5%)				
14. Du (2020) (18)	retrospective study	85	Age(y)	Mean±SD n(%)		Mean±SD, n(%)			
			Sex			COVID-19 patients, n=85			
			Age	65.8± 14.2					
			Female	23 (27.1%)	WBC, count; ×10 ⁹ /L	10.121 ± 6.266			
			Male	62 (72.9%)	Increased	38 (44.7%)			
					Decreased	10 (11.8%)			
				Neutrophil count; ×10 ⁹ /L	8.765 ± 6.181				
				Increased	51 (60.0%)				

					Decreased	11 (12.9%)		
					Lymphocytes; ×10 ⁹ /L	0.729 ± 0.419		
					Decreased	66 (77.6%)		
					Eosinophils; ×10 ⁹ /L	0.013 ± 0.025		
					Decreased	69 (81.2%)		
					Basophils; ×10 ⁹ /L	0.018 ± 0.035		
					Increased	4 (4.7%)		
					Monocytes; ×10 ⁹ /L	0.413 ± 0.305		
					Increased	16 (18.8%)		
					Decreased	7 (8.2%)		
					Platelets; ×10 ⁹ /L	162.6±108.9		
					Increased	6(7.1%)		
					Decreased	35(41.2%)		
					Haemoglobin; g/L	129.1 ± 25.4		
					Decreased	41 (48.2%)		
					Hematocrit; %	38.05 ± 7.10		
					Increased	5 (5.9%)		
					Decreased	53 (62.4%)		
					D-dimer µg/L;	5.159 ± 4.679 56		
					Increased	(65.9%)		
					Activated partial prothrombin time; s	39.22 ± 9.26		
					Increased	22 (25.9%)		
					Decreased	4 (4.7%)		
					Prothrombin time; s	15.41 ± 3.32		
					Increased	22 (25.9%)		
					Decreased	1 (1.2%)		
					Fibrinogen; g/L	6.321 ± 18.349		
					Increased	40 (47.1%)		
					Decreased	19 (22.4%)		
					Albumin; g/L	30.95 ± 9.85		
					Decreased	67 (78.8%)		
					Alanine aminotransferase; U/L	72.9 ± 199.5		
					Increased	14 (16.5%)		
15. Fan (2020) (51)	retrospective, single-center study	148	Age(y)	Median(IQR), n(%)		Median(IQR)		
			Sex			All(148)	Abnormal Liver function(55)	Normal Liver functio n (93)
			Age	50(36–64)				
			Male	73 (49.3 %)	WBC (109/L)	4.635 (3.62, 5.7)	5.04(3.89, 5.72)	4.35 (3.55, 5.6)
			Female	75 (50.7%)	Lymphocyte	1.115 (0.76, 1.51)	1.05(0.69, 1.57)	1.2 (0.785,1.5)
					PCT	0.03 (0.02, 0.06)	0.06(0.03, 0.09)	0.02 (0.02, 0.05)
					CRP	17.75 (8.7, 32.38)	25(12.68, 42.18)	13.2 (7.9, 25.83)
					ESR	50 (32, 84)	70(36, 86)	47.5 (31.25, 83.5)
					CD4+ T (cell/ul)	407 (261, 619.8)	397 (216, 591)	408 (290, 628)
					CD8+ T (cell/ul)	260 (163.3, 384.5)	225 (148, 364)	265 (181.5, 403)
					CD3+ T (cell/ul)	710 (494.5, 1024)	638 (424, 1056)	752 (546, 1024)
16. Gao (2020) (52)	retrospective study	43	Age(y)	All Mean±SD,n		Median(IQR), Mean±SD		
			Sex			Severe group (n = 15)		Mild group (n = 28)
			Age	43.74 ± 12.12				
			Female	17	AST, U/L	27.80 ± 11.42	33.21 ± 18.24	
			Male	26	ALT, U/L	27.00 (21.00, 41.00)	24.50 (15.75, 37.75)	
		GLU, mmol/L	7.73 (5.32, 9.91)	6.00 (5.45, 7.07)				

					Urea, mmol/L	4.51 ± 1.76	4.09 ± 1.29			
					Cr, μmol/L	65.33 ± 15.55	66.96 ± 13.38			
					Cys-c, mg/L	0.862 ± 0.21	0.820 ± 0.130			
					UA, μmol/L	201.60 ± 90.59	256.54 ± 85.86			
					CRP, mg/L	39.37 ± 27.68	18.76 ± 22.20			
					PCT, ng/mL	0.04 (0.02,0.09)	0.02 (0.01, 0.04)			
					IL-6, pg/mL	36.10 (23.00, 59.20)	10.60 (5.13, 24.18)			
					WBC, ×10 ⁹ /L	4.26 ± 1.64	4.96 ± 1.85			
					LYM, ×10 ⁹ /L	1.20 ± 0.42	1.07 ± 0.40			
					MONO, ×10 ⁹ /L	0.37 ± 0.16	0.43 ± 0.19			
					NEU, ×10 ⁹ /L	2.65 ± 1.49	3.43 ± 1.63			
					TT, s	15.87 ± 2.11	14.50 ± 1.71			
					FIB, g/L	3.84 ± 1.00	3.11 ± 0.83			
					APTT, s	27.29 ± 6.09	30.41 ± 5.31			
					PT, s	11.26 ± 1.42	12.03 ± 1.21			
					D-D, μg/L	0.49 (0.29, 0.91)	0.21 (0.19, 0.27)			
17. Guan (2020) (53)	---	1099	Age	All Median(IQR) no./total no. (%)	Median(IQR), no./total no. (%)					
			Sex		All Patients (N = 1099)	Non severe (N = 926)	Severe (N = 173)			
			Age	47.0(35.0–58)	Pao2:Fio2 ratio	3.9 (2.9–4.7)	3.9 (2.9–4.5)	4.0 (2.8–5.2)		
			Female	459/1096 (41.9)	Wbc count, per mm ³	4700 (3500–6000)	4900 (3800–6000)	3700 (3000–6200)		
					>10,000 per mm ³	58/978 (5.9)	39/811 (4.8)	19/167 (11.4)		
					<4000 per mm ³	330/978 (33.7)	228/811 (28.1)	102/167 (61.1)		
					Lymphocyte count, per mm ³	1000 (700–1300)	1000 (800–1400)	800 (600–1000)		
					<1500 per mm ³	731/879 (83.2)	584/726 (80.4)	147/153 (96.1)		
					Platelet count per mm ³	168,000 (132,000– 207,000)	172,000 (139,000–212,000)	137,500 (99,000– 179,500)		
					<150,000 per mm ³	315/869 (36.2)	225/713 (31.6)	90/156 (57.7)		
					hemoglobin, g/dl	134.0(119.0–148.0)	135.0 (120.0–148.0)	128.0 (111.8–141.0)		
					C-reactive protein ≥10 mg/liter	481/793 (60.7)	371/658 (56.4)	110/135 (81.5)		
					Procalcitonin ≥0.5 ng/ml	35/633 (5.5)	19/516 (3.7)	16/117 (13.7)		
					Lactate dehydrogenase ≥250 U/liter	277/675 (41.0)	205/551 (37.2)	72/124 (58.1)		
					Aspartate aminotransferase >40 U/liter	168/757 (22.2)	112/615 (18.2)	56/142 (39.4)		
					Alanine aminotransferase >40 U/liter	158/741 (21.3)	120/606 (19.8)	38/135 (28.1)		
					Total bilirubin >17.1 μmol/liter	76/722 (10.5)	59/594 (9.9)	17/128 (13.3)		
					Creatine kinase ≥200 U/liter	90/657 (13.7)	67/536 (12.5)	23/121 (19.0)		
					Creatinine ≥133 μmol/liter	12/752 (1.6)	6/614 (1.0)	6/138 (4.3)		
					d-dimer ≥0.5 mg/liter	260/560 (46.4)	195/451 (43.2)	65/109 (59.6)		
					sodium, mmol/liter	138.2(136.1–140.3)	138.4 (136.6–140.4)	138.0 (136.0–140.0)		
					potassium, mmol/liter	3.8 (3.5–4.2)	3.9 (3.6–4.2)	3.8 (3.5–4.1)		
					Chloride, mmol/liter	102.9 (99.7–105.6)	102.7 (99.7–105.3)	103.1 (99.8–106.0)		
			18. Han (2020) (54)	Case control	94 patient with COVID-19 40 Control	Sex	SARS-CoV-2 patients n(%)	Mean±SD		
						Male	48 (51%)	APTT, s	29.01 ± 2.93	28.65 ± 3.03
						Female	46 (49%)	AT, %	85.46 ± 14.43	98.82 ± 12.91
								D-dimer, mg/L	10.36 ± 25.31	0.26 ± 0.18
		FDP, mg/L				33.83 ± 82.28	1.55 ± 1.09			
		FIB, g/L				5.02 ± 1.53	2.90 ± 0.53			
		PT, s				12.43 ± 1.00	12.08 ± 5.28			
		PT-INR					1.05 ± 0.49			
		PT-act, %				1.07 ± 0.09	96.86 ± 26.92			

						TT, s	80.59 ± 12.77	18.00 ± 1.80	18.34 ± 0.92
						SARS-CoV-2 patients			
						Ordinary (n = 49)	Severe (n = 35)	Critical (n = 10)	
						APTT, s	28.56 ± 2.66	29.53 ± 3.48	29.41 ± 1.68
						AT, %	85.98 ± 13.03	85.59 ± 16.13	82.44 ± 15.89
						D-dimer, mg/L	2.14 ± 2.88	19.11 ± 35.48	20.04 ± 32.39
						FDP, mg/L	7.92 ± 11.38	60.01 ± 108.98	69.15 ± 129.19
						FIB, g/L	5.10 ± 1.16	4.76 ± 1.7301	5.59 ± 2.26
						PT, s	12.20 ± 0.88	12.65 ± 1.13	12.80 ± 0.87
						PT-INR	1.04 ± 0.08	1.09 ± 0.10	1.10 ± 0.08
						PT-act, %	83.56 ± 12.20	77.90 ± 13.60	75.5 ± 9.32
						TT, s	17.93 ± 1.19	18.49 ± 2.35	16.54 ± 1.24
19. Han (2020) (25)	retrospective study	32	Age (y)	Medin(IQR), n(%)			n(%)		
			Sex	Child	Adult		Children (n=7)	Adults (n=25)	
			Age	1.3(0.2-13)	44(22-70)	Blood routine	---		
			Male	4(57.1%)	12(48%)	Leucocytes (×10 ⁹ /L) Increased	2 (28.6%)	0	
			Female	3(42.9%)	13 (52%)	Decreased	0	5 (20%)	
						Neutrophils (×10 ⁹ /L) Increased	1 (14.3%)	2 (8%)	
						Lymphocytes (×10 ⁹ /L) Decreased	0	9 (36%)	
						Platelets (×10 ⁹ /L) Increased	1 (14.3%)	2 (8%)	
						Decreased	0	2 (8%)	
						Blood biochemistry	---		
						Albumin (g/L) Decreased	0	18 (72%)	
						ALT(U/L) Increased	1 (14.3%)	4 (16%)	
						Aspartate aminotransferase(U/L) Increased	3 (42.9%)	5 (20%)	
						Total bilirubin (μmol/L) Increased	1 (14.3%)	7 (28%)	
						Blood urea nitrogen (mmol/L) Increased	0	0	
						Decreased	0	13 (52%)	
						Serum creatinine (μmol/L) Increased	0	0	
						Decreased	0	11 (44%)	
						Creatine kinase isoenzyme (U/L) Increased	4 (57.1%)	1 (4%)	
						Lactate dehydrogenase (U/L) Increased	2 (28.6%)	1 (4%)	
						Myoglobin (ng/mL) Increased	2 (28.6%)	1 (4%)	
						Brain natriuretic peptide (pg/mL) Increased	5 (71.4%)	10 (40%)	
						Coagulation function	---		
						Activated partial thromboplastin time (s) Increased	3 (42.9%)	0	
						Decreased	3 (42.9%)	18 (72%)	
						Fibrinogen (s) Increased	0	8 (32%)	

					Decreased	1 (14.3%)	0	
					D-dimer (µg/L)	2 (28.6%)	7 (28%)	
					Increased			
					Infection-related biomarkers	---	---	
					ESR (mm/h)	3 (42.9%)	21 (84%)	
					Increased			
					C-reactive protein (mg/L)	2 (28.6%)	11 (44%)	
					Increased			
					Procalcitonin (ng/L)		0	
					Increased	3 (42.9%)		
20. Huang (2020) (30)	---	41	Age(y)	All		Median(IQR), no./X no. (%)		
			Sex	Median(IQR), n(%)		All patients (n=41)	ICU care (n=13)	No ICU care (n=28)
			Age	49.0 (41.0–58.0)	Wbc count, × 10 ⁹ per L	6.2 (4.1–10.5)	11.3 (5.8–12.1)	5.7 (3.1–7.6)
			Male	30 (73%)	<4	10/40 (25%)	1/13 (8%)	9/27(33%)
			Female	11 (27%)	4–10	18/40 (45%)	5/13(38%)	13/27 (48%)
					>10	12/40 (30%)	7/13 (54%)	5/27 (19%)
					Neutrophil count, × 10 ⁹ per L	5.0 (3.3–8.9)	10.6 (5.0–11.8)	4.4 (2.0–6.1)
					Lymphocyte count, × 10 ⁹ per L	0.8 (0.6–1.1)	0.4 (0.2–0.8)	1.0 (0.7–1.1)
					<1.0	26/41 (63%)	11/13 (85%)	15/28 (54%)
					≥1.0	15/41 (37%)	2/13 (15%)	13/28 (46%)
					Haemoglobin, g/L	126.0 (118.0–140.0)	122.0 (111.0–128.0)	130.5 (120.0–140.0)
					Platelet count, × 10 ⁹ per L	164.5 (131.5–263.0)		149.0 (131.0–263.0)
					<100	2/40 (5%)	1/13(8%)	1/27(4%)
					≥100	38/40 (95%)	12/13 (92%)	26/27 (96%)
					Prothrombin time, s	11.1 (10.1–12.4)	12.2 (11.2–13.4)	10.7 (9.8–12.1)
					Activated partial thromboplastin time, s	27.0 (24.2–34.1)	26.2 (22.5–33.9)	27.7 (24.8–34.1)
					D-dimer, mg/L	0.5 (0.3–1.3)	2.4 (0.6–14.4)	0.5 (0.3–0.8)
					Albumin, g/L	31.4 (28.9–36.0)	27.9 (26.3–30.9)	34.7 (30.2–36.5)
					Alanine aminotransferase, U/L	32.0 (21.0–50.0)	49.0 (29.0–115.0)	27.0 (19.5–40.0)
					Aspartate aminotransferase, U/L	34.0 (26.0–48.0)	44.0 (30.0–70.0)	34.0 (24.0–40.5)
					≤40	26/41 (63%)	5/13 (38%)	21/28 (75%)
					>40	15/41 (37%)	8/13 (62%)	7/28 (25%)
					Total bilirubin, mmol/L	11.7 (9.5–13.9)	14.0 (11.9–32.9)	10.8 (9.4–12.3)
					Potassium, mmol/L	4.2 (3.8–4.8)	4.6 (4.0–5.0)	4.1 (3.8–4.6)
					Sodium, mmol/L	139.0 (137.0–140.0)	138.0 (137.0–139.0)	139.0 (137.5–140.5)
					Creatinine, µmol/L	74.2 (57.5–85.7)	79.0 (53.1–92.7)	73.3 (57.5–84.7)
					≤133	37/41 (90%)	11/13 (85%)	26/28 (93%)
					>133	4/41 (10%)	2/13 (15%)	2/28 (7%)
					Creatine kinase, U/L	132.5 (62.0–219.0)	132.0 (82.0–493.0)	133.0 (61.0–189.0)
					≤185	27/40 (68%)	7/13 (54%)	20/27 (74%)
					>185	13/40 (33%)	6/13 (46%)	7/27 (26%)
					Lactate dehydrogenase, U/L	286.0 (242.0–408.0)	400.0 (323.0–578.0)	281.0 (233.0–357.0)

					≤245	11/40 (28%)	1/13 (8%)	10/27 (37%)
					>245	29/40 (73%)	12/13 (92%)	17/27 (63%)
					Hypersensitive troponin I, pg/mL	3.4 (1.1–9.1)	3.3 (3.0–163.0)	3.5 (0.7–5.4)
					>28 (99th percentile)	5/41 (12%)	4/13 (31%)	1/28 (4%)
					Procalcitonin, ng/mL	0.1 (0.1–0.1)	0.1 (0.1–0.4)	0.1 (0.1–0.1)
					<0.1	27/39 (69%)	6/12 (50%)	21/27 (78%)
					≥0.1 to <0.25	7/39 (18%)	3/12 (25%)	4/27 (15%)
					≥0.25 to <0.5	2/39 (5%)	0/12	2/27 (7%)
					≥0.5	3/39 (8%)	3/12 (25%)	0/27
21. Jin (2020) (55)	retrospective study	651	Age (y) Sex	Mean±SD no./X no. (%)	Blood tests		Median(IQR)	
					GI	No GI	GI symptoms (n=74)	no GI symptoms (n=577)
			Age	46.14±14.9	45.09±14.45	---		
			Male	37/74 (50.0%)	294/577 (50.95%)	Leucocytes (×10 ⁹ /L)	4.85 (3.80–6.34)	4.70 (3.76–5.90)
						Neutrophils (×10 ⁹ /L)	3.14 (2.60–4.70)	2.90 (2.13–3.91)
						Lymphocytes (×10 ⁹ /L)	0.97 (0.73–1.30)	1.20 (0.90–1.60)
						Platelets (×10 ⁹ /L)	183 (141–216)	177 (146–218)
						Haemoglobin (g/L)	135.5 (127.0–149.3)	138.0(128.0–151.0)
						Haematocrit (%)	39.40 (37.60–43.60)	40.50 (37.35–43.95)
						Coagulation function	---	
						International normalised ratio	1.03 (0.97–1.15)	1.02 (0.97–1.08)
						Blood biochemistry	---	
						Albumin (g/L)	40.13(35.95–42.60)	41.50 (38.63–43.76)
						Alanine aminotransferase(U/L)	25.0 (15.75–38.47)	21.5 (15.0–32.8)
						Aspartate aminotransferase(U/L)	29.35 (20.87–38.62)	24.4 (19.0–32.0)
						Total bilirubin (umol/L)	10.0 (7.15–13.8)	9.6 (7.0–13.1)
						Serum sodium (mmol/L)	137.65 (134.98–139.30)	138.33 (136.18–140.15)
						Serum potassium (mmol/L)	3.78 (3.50–4.10)	3.83 (3.60–4.11)
						Blood urea nitrogen (mmol/L)	3.35 (2.75–4.50)	3.80 (3.04–4.60)
						Serum creatinine (umol/L)	66.0 (56.20–75.25)	66.0 (56.0–78.0)
						Creatine kinase (U/L)	73.0 (52.75–106.25)	70.0 (47.0–107.0)
						Lactate dehydrogenase (U/L)	229.0 (170.0–316.75)	210.0 (169.0–257.50)
						Glucose (mmol/L)	5.95 (5.19–7.92)	5.80 (5.0–7.04)
						Infection- related biomarkers	---	
						Procalcitonin (ng/mL)	0.06 (0.03–0.09)	0.05 (0.04–0.07)
						C reactive protein (mg/L)	15.69 (4.81–23.95)	7.90 (2.60–19.55)
			22. Li (2020) (56)	retrospective study	22	Age Sex	Mean(SD),number	Mean(SD)
All, n=22								
Age	8 (6)	Wbc count(× 10 ⁹ /L)				6.5 (1.97)		
Male	12	Neutrophil count (× 10 ⁹ /L)				3.9 (1.76)		
		Lymphocyte count (× 10 ⁹ /L)				2.0 (1.26)		
		CRP (mg/L)				11.2 (11.06)		
		ESR(s)				18.8 (15.17)		
			Procalcitonin (ng/ml)	0.05 (0.02)				
23. Li (2020) (57)	retrospective cohort study	658	Age (y) Sex	Median(IQR) n(%)	Median(IQR)			
					ketos	Non ketos	Ketosis(n = 42)	Non- ketosis(n = 616)
			Age	47.0 (38.0–70.3)	58.0(43.0–67.0)	Leukocytes 10 ⁹ /L	5.5 (3.5–9.1)	5.2 (4.1–6.7)
			Female	26 (61.9)	335 (54.4)	Neutrophils 10 ⁹ /L	3.8 (1.9–6.4)	3.4 (2.4–4.6)
						Lymphocytes 10 ⁹ /L	1.1 (0.9–1.6)	1.2 (0.8–1.7)
						Eosinophils 10 ⁹ /L	0.00 (0.00–0.03)	0.03 (0.00–0.09)
						Basophils 10 ⁹ /L	0.01 (0.01–0.02)	0.02 (0.01–0.02)
			Platelets 10 ⁹ /L	172.5 (145.0–222.8)	192.0 (154.0–247.0)			

					Haemoglobin (g/L)	132.0 (120.8–140.8)	128.0 (119.0–139.0)		
					Monocytes 10 ⁹ /L	0.3 (0.2–0.5)	0.4 (0.3–0.5)		
					Activated partial thromboplastin time (s)	29.1 (25.1–31.3)	27.9 (24.9–31.0)		
					Fibrinogen g/L	2.9 (2.6–3.6)	2.8 (2.3–3.3)		
					Prothrombin time (s)	11.4 (10.8–11.7)	11.5 (11.0–12.0)		
					International normalized ratio	1.0 (0.9–1.0)	1.0 (0.9–1.0)		
					D-dimer µg/mL	0.7 (0.4–1.9)	0.5 (0.2–1.3)		
					Albumin g/L	39.4 (34.9–42.7)	39.5 (36.1–43.1)		
					Globulin g/L	28.4 (24.1–31.3)	26.9 (24.4–30.8)		
					Albumin-to-globulin ratio	1.4 (1.2–1.6)	1.5 (1.2–1.7)		
					Alanine aminotransferase U/L	15.7 (10.9–28.8)	19.7 (13.8–34.3)		
					Aspartate aminotransferase U/L	24.7 (16.8–37.3)	21.0 (16.0–30.6)		
					Total bilirubin µmol/L	9.3 (6.2–13.8)	9.6 (7.0–13.6)		
					Serum urea mmol/L	4.3 (3.0–5.9)	4.1 (3.2–5.4)		
					Serum creatinine µmol/L	55.6 (42.4–65.2)	65.7 (52.0–79.8)		
					Alkaline phosphatase U/L	60.8 (44.8–60.8)	60.8 (46.0–60.8)		
					pH value	7.42 (7.41–7.46)	7.42 (7.41–7.44)		
					Creatine kinase U/L	91.5 (47.0–166.8)	88.0 (52.0–132.0)		
					Lactate dehydrogenase U/L	214.6 (152.3–282.5)	191.0 (150.0–216.0)		
					Creatine kinase isoenzyme IU/L	9.0 (6.0–11.5)	8.4 (6.0–10.3)		
					Alpha-hydroxybutyrate dehydrogenase U/L	170.5 (119.8–216.0)	149.0 (118.3–167.0)		
					γ-Glutamyltransferase U/L	17.5 (13.6–34.3)	21.1 (13.3–38.9)		
					Glucose mmol/L	5.6 (4.7–10.5)	5.5 (4.8–6.9)		
					Procalcitonin ng/mL	0.11 (0.05–0.24)	0.05 (0.04–0.10)		
					C-reactive protein mg/dL	3.5 (1.4–6.5)	0.9 (0.1–3.4)		
24. Li (2020) (58)	retrospective study	83	Age	Total Mean(SD) n(%)		Median(IQR), n(%)			
			Sex			Total (n = 83)	Severe/Critical Group (n = 25)	Ordinary Group (n = 58)	
			Age(y)	45.5 (12.3)	Wbc count, 10 ⁹ /L	5.30 (4.20–6.80)	5.50 (4.10–7.70)	5.27 (4.20–6.30)	
			Male	44 (53.0%)	Increased	9 (10.8%)	4(16.0%)	5 (8.6%)	
			Female	39 (47.0%)	Decreased	10 (12.0%)	4 (16.0%)	6 (10.3%)	
					Neutrophil count, 10 ⁹ /L	3.61 (2.67–5.56)	4.36 (2.87–6.48)	3.50 (2.64–4.46)	
					Increased	17 (20.5%)	7 (28.0%)	10 (17.2%)	
					Decreased	5 (6.0%)	2 (18.0%)	3 (5.2%)	
					Lymphocyte count, 10 ⁹ /L	1.05 (0.75–1.32)	0.70 (0.44–0.95)	1.23 (0.93–1.42)	
					Decreased	44 (53.0%)	22(88.0%)	22 (37.9%)	
					Monocyte count, 10 ⁹ /L	0.39 (0.27–0.53)	0.34 (0.15–0.51)	0.42 (0.29–0.53)	
					Increased	12 (14.5%)	2 (8.0%)	10 (17.2%)	
					Decreased	2 (2.4%)	2(8.0%)	0 (0.0%)	
					C-reactive protein, mg/L	16.70 (3.58–60.87)	89.20 (47.88–134.64)	9.59 (2.07–29.89)	
					Increased	50 (60.2%)	23 (92.0%)	27 (46.6%)	
					Procalcitonin, ng/mL	0.048 (0.032–0.085)	0.086 (0.054–0.215)	0.038 (0.028–0.068)	
					Increased	44 (53.0%)	21 (84.0%)	23 (39.7%)	
					Oxyhemoglobin saturation,%	97.00 (95.10–98.00)	95.10 (92.90–97.45)	97.00 (96.00–98.00)	
					Decreased	16 (19.3%)	11 (44.0%)	5 (8.6%)	
			25. Li (2020) (59)	retrospective study	131	Age(y)	Mean±SD		n(%)
Sex	n(%)					All=131			
Age	47 ± 15	Leucocytes(×10 ⁹ per L)							
Male	63 (48%)	Decreased				11 (8%)			
		Normal				111 (85%)			
Female	68 (52%)	Increased				9 (7%)			
				Neutrophils(× 10 ⁹ per L)					

					Decreased	5 (4%)					
					Normal	109 (83%)					
					Increased	17 (13%)					
					Lymphocytes (× 10 ⁹ per L)						
					Decreased	74 (57%)					
					Normal	57 (43%)					
					Procalcitonin (ng/mL)						
					Increased	69 (53%)					
					Normal	62 (47%)					
					C-reactive protein (mg/L)						
					Increased	75 (57%)					
					Normal	56 (43%)					
26. Liu (2020) (60)	retrospective cohort study	383	Age(y)	median (IQR), n(%)		median (IQR)					
			Sex			Total (n = 383)	Thrombocytopenia(n = 68)	Nonthrombocytopeny(n =315)			
			Age	46(34–61)	Wbc count, ×10 ⁹ /L	4.8 (3.6–6.3)	3.9 (2.7–5.1)	5.0 (3.8–6.5)			
			Male	162 (42.3%)	Neutrophil count, ×10 ⁹ /L	3.2 (2.0–4.5)	2.8 (1.5–3.8)	3.3 (2.2–4.7)			
					Lymphocyte count, ×10 ⁹ /L	1.0 (0.7–1.4)	0.8 (0.5–1.1)	1.1 (0.8–1.5)			
					Hemoglobin, g/L	131 (122–141)	131(120–141)	131(122–141)			
					Procalcitonin, ng/mL	0.05 (0.04–0.08)	0.06 (0.05–0.17)	0.05(0.04–0.07)			
					C-reactive protein, mg/dL	1.2 (0.3–3.9)	2.5 (0.8–4.5)	1.0 (0.2–3.6)			
					Total bilirubi, mmol/L	8 (6–12)	9 (7–13)	8 (6–11)			
					Alanine aminotransferase, U/L	19 (13–30)	24 (14–31)	18 (13–30)			
					Aspartae aminotransferase, U/L	21 (17–33)	29 (20–41)	21 (17–30)			
					Blood urea nitroge, mmol/L	4.0 (3.2–5.2)	4.6 (3.5–6.0)	4.0 (3.2–4.9)			
					Creatinine, μmol/L	64 (52–78)	69 (59–83)	63 (50–76)			
					Fibrinogen, g/L	2.9 (2.4–3.4)	2.9 (2.5–3.2)	2.8 (2.4–3.5)			
					D-dimer, mg/L	0.4 (0.2–0.8)	0.5 (0.3–1.0)	0.4 (0.2–0.8)			
					Lactate, mmol/L	1.2 (0.8–1.6)	1.2 (0.8–1.8)	1.2 (0.7–1.6)			
					PaO2:FIO2, mm Hg	420 (270–528)	337 (208–520)	424 (280–540)			
					Platelet parameters,	---					
					Platelet count, ×10 ⁹ /L	174 (137–213)	105 (92–116)	186 (160–227)			
					Plateletcrit, %	0.18 (0.14–0.22)	0.11 (0.09–0.12)	0.19 (0.16–0.23)			
					The mean platelet volume, fL	10.0 (9.2–10.7)	10.3 (9.6–10.9)	9.9 (9.1–10.6)			
					The platelet distribution width, %	15.5 (10.9–16.4)	12.9 (11.0–16.5)	15.8 (10.9–16.3)			
					The platelet larger cell ratio, %	25.2 (20.1–31.1)	28.5 (22.6–33.7)	24.3 (19.8–30.2)			
			27. Mao (2020) (61)	retrospective, observational study	214	Age(y)	mean [SD], n(%)		Median(IQR)		
						Sex			With CNS symptoms (n = 53)	Without CNS symptoms (n = 161)	
						Age	52.7 [15.5]	Count, ×10 ⁹ /L	---	---	
						Male	87[40.7%]	White blood cell	4.6 (0.1-12.5)	4.9 (1.8-20.4)	
Neutrophil	2.6 (0.0-10.9)	3.1 (0.7-18.7)									
Lymphocyte	1.0 (0.1-2.3)	1.2 (0.2-2.6)									
		Platelet				180.0(18.0-564.0)	227.0(42.0-583.0)				
		C-reactive protein, mg/L	14.1 (0.1-212.0)	11.4 (0.1-204.5)							

					D-dimer, mg/L	0.5 (0.2-9.7)	0.5 (0.1-20.0)	
					Creatine kinase, U/L	79.0(8.8-12216.0)	60.5 (19.0-1260.0)	
					Lactate dehydrogenase, U/L	243.0 (2.2-880.0)	241.0 (3.5-908.0)	
					Aminotransferase, U/L	---	---	
					Alanine	27.0 (5.0-261.0)	26.0 (6.0-1933.0)	
					Aspartate	29.5 (13.0-213.0)	26.0 (8.0-8191.0)	
					Blood urea nitrogen, mmol/L	4.5 (1.6-48.1)	4.1 (1.5-19.1)	
					Creatinine, μmol/L	71.7 (37.1-1299.2)	66.3 (35.9-9435.0)	
28. Meng (2020) (62)	retrospective analysis	58	Age(y)	Mean±SD		Mean±SD		
			Sex	n(%)		All, n=58		
			Age	42.60 ±16.56	Red blood cell count, ×10 ⁹ /L	4.02 ±0.45		
			Male	26(44.8%)	Leukocyte count, ×10 ⁹ /L	5.38 ±1.63		
			Female	32(55.2%)	Neutrophil count, ×10 ⁹ /L	3.29 ±1.42		
					Lymphocyte count, ×10 ⁹ /L	1.54 ±0.55		
					Platelet count, ×10 ⁹ /L	215.76 ±67.86		
					C-reactive protein, mg/L	9.06 ±21.67		
					ALT, U/L	22.79 ±21.97		
					AST, U/L	24.50 ±12.33		
					Urea, mmol/L	4.66 ±3.15		
					Creatinine, μmol/L	58.83 ±46.63		
					LDH, U/L	188.20 ±70.09		
					Creatine kinase, U/L	99.60 ±171.57		
					PT, s	11.04 ±0.87		
					APTT, s	29.46 ±3.97		
					D-dimer, mg/L	0.76 ±1.05		
					CD3 cell count	1113.30 ±326.61		
					CD4 cell count	606.60 ±210.07		
					CD8 cell count	427.20 ±150.10		
		CD19 cell count	232.05 ±137.36					
		CD16/CD56 cellcount	174.95 ±117.44					
29. Meng (2020) (63)	retrospective analysis	168	Age(y)	All		Median(IQR), n(%)		
			Sex	Mean(SD) number		All patients (n = 168)	Male (n = 86)	Female(n= 82)
			Age	56.7(15.1)	Wbc (×10 ⁹ /L)	5.2(3.9–6.9)	5.3(4.0–7.5)	5.0(3.9–6.4)
			Male	86	<4	50(29.8%)	23(26.7%)	27(32.9%)
					4–10	109(64.9%)	58(67.4%)	51(62.2%)
					>10	9(5.4%)	5(5.8%)	4(4.9%)
					Neutrophil count (×10 ⁹ /L)	3.6(2.5–5.4)	4.0(2.6–5.6)	3.3(2.5–5.0)
					Lymphocyte count (×10 ⁹ /L)	0.9(0.7–1.3)	0.8(0.7–1.2)	1.0(0.7–1.3)
					<1.1	112(66.7%)	62(72.1%)	50(61.0%)
					≥ 1.1	56(33.3%)	24(27.9%)	32(39.0%)
					Neutrophil/lymphocyte ratio (median, [IQR])	3.8(2.4–7.2)	4.2(3.0–8.2)	3.1(2.2–5.7)
					Monocyte count (×10 ⁹ /L)	0.4(0.3–0.5)	0.4(0.3–0.5)	0.4(0.3–0.5)
					Haemoglobin (g/L)	130.0(119.0–139)	137.0(131.0– 144.0)	120.0(113.0– 128.0)
					Hematocrit (%)	38.2(34.5–40.5)	39.8(37.9–41.4)	35.7(32.7–38.6)
					Platelet count (×10 ⁹ /L)	188.0(144.0– 239.0)	184.0(142.0– 239.0)	198.5(150.0– 244.0)
		<125	27(16.1%)	17(19.8%)	10(12.2%)			
		Glycosylated hemoglobin (%)	6.0(5.6–6.5)	5.9(5.5–6.7)	6.1(5.7–6.5)			

					Prothrombin time (s)	14.1(13.4–14.8)	14.3(13.4–15.0)	14.0(13.4–14.5)
					Activated partial thromboplastin time (s)	41.9(37.1–45.6)	43.6(39.1–46.5)	39.6(36.0–43.6)
					D-dimer (ug/ml)	0.7(0.4–1.9)	0.8(0.4–2.1)	0.7(0.4–1.3)u
					≥0.5	108(64.3%)	55(64.0%)	53(64.6%)
					Ferritin (ng/mL)	672.4(380.4– 1196.6)	884.9(590.0– 1478.7)	469.1(286.0– 771.3)
					Alanine aminotransferase (U/L)	24.0(15.0–40.0)	31.5(19.0–48.0)	18.0(12.0–31.0)
					>40	41(24.4%)	29(33.7%)	12(14.6%)
					Aspartate aminotransferase (U/L)	30.0(21.5–46.5)	37.5(25.0–52.0)	25.0(19.0–33.0)
					>40	54(32.1%)	39(45.4%)	15(18.3%)
					Albumin (g/L)	34.7(31.2–38.8)	34.3(31.1–38.0)	35.4(31.2–39.0)
					Total bilirubin (μmol/L)	8.5(5.6–11.4)	9.7(7.0–12.7)	7.4(5.0–9.6)
					>17.1	18(10.7%)	14(16.3%)	4(4.9%)
					Lactate dehydrogenase (U/L)	292.0 (225.0– 397.0)	305.0 (238.0– 455.0)	278.5(213.0– 351.0)
					>225	126(75.0%)	69(80.2%)	57(69.5%)
					Blood urea nitrogen (mmol/L)	4.4(3.4–5.7)	4.8(4.0–6.5)	3.9(3.0–4.9)
					Creatinine (U/L)	69.5(57.0–81.5)	78.5(71.0–90.0)	58.0(52.0–66.0)
					>133	7(4.1%)	6(7.0%)	1(1.2%)
					C-reactive protein (mg/L)	42.3(12.2–100.3)	59.5(24.8–138.5)	28.7(7.1–73.1)
					≥ 10	136(81.0%)	78(90.7%)	58(70.7%)
					Glucose (mmol/L)	6.7(5.7–8.6)	7.1(6.1–8.6)	6.5(5.5–8.6)
					>6.1	108(64.3%)	61(70.9%)	47(57.3%)
					Erythrocyte sedimentation rate (mm/h)	28.0(17.0–55.0)	28.0(17.0–48.0)	28.0(19.0–60.0)
					Hypersensitive troponin I (pg/mL)	4.9(2.6–15.1)	4.9(2.8–20.1)	4.7(2.5–12.7)
					≤28	152(90.5%)	75(87.2%)	77(93.9%)
					>28	16(9.5%)	11(12.8%)	5(6.1%)
					Procalcitonin (ng/mL)	0.06(0.03–0.15)	0.10(0.05–0.24)	0.04(0.02–0.08)
					<0.1	119(64.9%)	44(51.2%)	65(79.3%)
					≥0.1 to <0.25	37(22.0%)	25(29.1%)	12(14.7%)
					≥0.25 to <0.5	8(4.8%)	6(7.0%)	2(2.4%)
					≥0.5	14(8.3%)	11(12.8%)	3(3.7%)
30. Pan (2020) (15)	descriptive, cross-sectional, multicenter study	204	Age(y)	Mean±SD		Mean±SD		
			Sex	number		All patients (n= 204)	Patients without digestive symptoms(n= 101)	Patients with digestive symptoms(n=103)
			Age	52.91 ± 15.98	White blood cell count, ×10 ⁹ /L	6.09 ±3.70	6.59±3.87	5.60±3.48
			Male/Female	107/97	Neutrophil count, ×10 ⁹ /L	4.48±3.70	4.90±3.92	4.06±3.44
					Hemoglobin, g/L	128.08±18.52	128.77 ±18.40	127.41±18.70
					Neutrophil ratio, %	67.85±16.21	68.36 ±15.26	67.35±17.16
					Lymphocyte count, ×10 ⁹ /L	1.13±0.55	1.18 ±0.52	1.08 ±0.58
					Monocyte count, ×10 ⁹ /L	0.42±0.22	0.46±0.23	0.39±0.20
					Platelet count, ×10 ⁹ /L	201.14±88.38	195.73 ±84.09	206.44±92.49
					Prothrombin time, s	12.83 ±1.91	12.53±1.89	13.13±1.88
					Activated partial thromboplastin time, s	34.19 ±6.22	33.47±5.20	34.89 ±7.05
					Fibrinogen, g/L	4.40±1.57	4.27±1.41	4.54±1.71
					Alanine aminotransferase, U/L	35.98 ±35.82	29.53±23.58	42.24±43.83
					Aspartate aminotransferase, U/L	31.36 ±25.55	27.48 ±23.98	35.12±26.58

					Glutamate/alanine aminotransferase	1.10±0.56	1.09±0.53	1.10±0.59
					Total bilirubin, mmol/L	13.65 ±10.26	13.46 ±8.11	13.83±12.03
					Albumin, g/L	36.00 ±6.07	35.84 ±5.63	36.16±6.49
					Blood nitrogen, mmol/L	5.11±2.76	5.14±2.92	5.08±2.62
					Creatinin μ mol/L	75.54±26.87	76.21±26.51	74.88±27.33
					Serum sodium, mmol/L	138.42 ±4.26	138.26±4.70	138.56±3.81
					Serum potassium, mmol/L	4.17±0.64	4.20±0.61	4.14±0.68
31. Qian (2020) (64)	retrospective, multi-centre study	91	Age(y)	Median(IQR), n(%)		Median(IQR), n(%)		
			Sex			Patients (n=91)		
			Age	50 (36.5–57)	Blood routine	---		
			Female	54 (59.34%)	Leucocytes ($\times 10^9/l$)	4.99 (4.25–5.69)		
					Increased	3 (32.97)		
			Male	37 (40.66%)	Decreased	14 (15.39)		
					Neutrophils ($\times 10^9/l$)	2.91 (2.3–3.58)		
					Increased	3 (3.30)		
					Decreased	10 (10.99)		
					Lymphocytes ($\times 10^9/l$)	1.35 (0.98–1.66)		
					Increased	3 (3.30)		
					Decreased	28 (30.77)		
					Mononuclear leucocytes ($\times 10^9/l$)	0.4 (0.3–0.58)		
					Increased	18 (19.78)		
					Decreased	0		
					Eosinophils ($\times 10^9/l$)	0.01 (0.01–0.05)		
					Increased	0		
					Decreased	47 (51.65)		
					Basophil ($\times 10^9/l$)	0.01 (0.01–0.02)		
					Increased	1 (1.10)		
					Decreased	0		
					Red blood cell ($\times 10^{12}/l$)	4.49 (4.11–4.81)		
					Increased	0		
					Decreased	10 (10.99)		
					Haemoglobin (g/l)	135 (125–145)		
					Increased	1 (10.99)		
					Decreased	33 (36.26)		
					Platelets ($\times 10^9/l$)	196 (142–238)		
					Increased	3 (3.30)		
					Decreased	10 (10.99)		
					Thrombocytocrit (%)	0.2 (0.15–0.24)		
					Increased	4 (4.40)		
					Decreased	39 (42.86)		
					Fibrinogen (g/l)	3.4 (2.7–4.04)		
					Increased	22 (24.18)		
					Decreased	3 (3.30)		
					D-dimer (ng/ml)	300 (106–450)		
					Increased	22 (24.18)		
					Decreased	0		
					Blood chemistry	---		
		Alanine aminotransferase (U/l)	18 (13–28)					
		Increased	7 (7.69)					
		Decreased	6 (6.59)					
		Aspartate aminotransferase (U/L)	21 (17–28)					
		Increased	9 (9.89)					
		Decreased	9 (9.89)					
		Albumin (g/l)	40 (37.85–42)					

					Albumin	38.55 (36.33–39.25)	40.2 (38–42.4)			
					Urea	5.19 (4.66–6.14)	3.83 (3.25–4.4)			
					Serum creatinine	81.5 (70.75–90.5)	66 (57–76)			
					K+	3.82 (3.76–3.89)	4.09 (3.72–4.27)			
					Na±	137.85 (135.3–139.38)	139.6 (137.6–142)			
					Cl-	101.4 (99.28–104.5)	103.4 (101.28–105.23)			
					Ca2±	2.01 (1.86–2.01)	2.17 (2.07–2.25)			
					Infection-related biomarkers	---				
					C-reactive protein	30.63 (12.5–103.4)	5.98 (1.4–11.3)			
					Procalcitonin	0 (0)	0.03 (0–0.04)			
32. Qiu (2020) (16)	observational cohort study	36	Age(y)	Total Mean(SD) n(%)		Mean(SD), number				
			Sex			Total (n=36)	Mild cases (n=17)	Moderate cases (n=19)		
			Age		8.3(3.5)	White blood cells (× 10 ⁹ cells per L)	6.1 (2.1)	6.5 (2.3)	5.8 (1.9)	
			Female		13(36%)	Decreased (n)	7	2	5	
						Lymphocytes (× 10 ⁹ cells per L)	2.4 (0.8)	2.8 (1.0)	2.0 (0.7)	
						Decreased (n)	11	2	9	
						Procalcitonin (ng/mL)	0.24 (0.17)	0.15 (0.13)	0.32 (0.19)	
						Increased (n)	6	1	5	
						CRP (mg/L)	5 (2)	4 (1)	5 (2)	
						Increased (n)	1	0	1	
						D-dimer (µg/mL)	0.29 (0.20)	0.21 (0.18)	0.36 (0.21)	
						Increased (n)	3	1	2	
						ESR (mm/h)	7 (2)	6 (2)	7 (2)	
						Increased (n)	0	0	0	
						Creatine kinase(U/L)	96 (47)	80 (44)	110 (56)	
						Increased (n)	1	0	1	
						Creatine kinase MB (U/L)	19 (10)	14 (9)	24 (12)	
						Increased (n)	11	4	7	
						Alanine aminotransferase (U/L)	21 (14)	21 (12)	20 (13)	
						Increased (n)	2	2	0	
						Aspartate transferase (U/L)	30 (11)	32 (10)	28 (11)	
						Increased (n)	3	2	1	
						Creatinine (µmol/L)	56 (12)	58 (11)	54 (13)	
						Increased (n)	0	0	0	
						BUN (mmol/L)	3.8 (0.5)	3.7 (0.4)	3.9 (0.5)	
						Increased (n)	0	0	0	
						Oxygensaturation	98.1 (0.4)	98.2 (0.3)	98 (0.3)	
						Decreased (n)	0	0	0	
								Age 0 to ≤5 years (n=10)	Age >5 to ≤16 years (n=26)	
								White blood cells (× 10 ⁹ cells per L)	6.5 (2.2)	5.9 (2.0)
								Decreased (n)	2	5
								Lymphocytes (× 10 ⁹ cells per L)	2.9 (1.1)	2.2 (0.7)
								Decreased (n)	2	9
								Procalcitonin (ng /mL)	0.13 (0.15)	0.28 (0.19)
								Increased (n)	1	5
								C-reactive protein (mg/L)	4 (1)	5 (2)
				Increased (n)	0	1				
				D-dimer (µg/mL)	0.20 (0.18)	0.32 (0.20)				
				Increased (n)	0	3				
				Creatine kinase (U/L)	124 (54)	85 (44)				
				Increased (n)	1	0				
				Creatine kinase MB (U/L)	21 (14)	18 (7)				
				Increased (n)	5	6				

					Oxygen saturation	98.2 (0.3)	98.1 (0.3)	
					Decreased (n)	0	0	
33. Shi (2020) (65)	retrospective study	81	Age(y)	Mean(SD), n(%)		Mean(SD), n(%)		
			Sex			All patients (n=81)		
			Age	49.5 (11.0)	Leukocyte count, $\times 10^9/L$	8.1 (3.4)		
			Male	42 (52%)	<10	55 (68%)		
					≥ 10	26 (32%)		
			Female	39 (48%)	Lymphocyte count, $\times 10^9/L$	1.1 (0.3)		
					<1.0	27 (33%)		
					≥ 1.0	54 (67%)		
					Platelet count, $\times 10^9/L$	212.2 (99.7)		
					<100	0		
					≥ 100	81 (100%)		
					Haemoglobin, ng/mL	123.9 (12.0)		
					C-reactive protein, mg/L	47.6 (41.8)		
					Serum amyloid A protein, mg/L	213.5 (177.8)		
					Alanine aminotransferase, U/L	46.2 (29.5)		
					Aspartate aminotransferase, U/L	40.8 (17.9)		
					≤ 40	38 (47%)		
					>40	43 (53%)		
					Total bilirubin, $\mu\text{mol/L}$	11.9 (3.6)		
					Albumin, g/L	32.9 (8.1)		
		Glucose, mmol/L	6.4 (2.1)					
		Creatinine, $\mu\text{mol/L}$	75.4 (29.8)					
		Prothrombin time, s	10.7 (0.9)					
		Activated partial thromboplastin time, s	32.1 (7.6)					
		Thrombin time, s	28.9 (8.4)					
		Fibrinogen, g/L	1.5 (2.3)					
		D-dimers, mg/L	6.5 (0.8)					
34. Tang (2020) (26)	Retrospective study	183	Age(y)	Total Mean \pm SD number	Median(IQR)			
			Sex		Total (n = 183)	Survivors (n = 162)	Nonsurvivors(n = 21)	
			Age	54.1 \pm 16.2	Coagulation parameters On admission			
			Sex (male/female)	98/85	PT (sec)	13.7 (13.1-14.6)	13.6 (13.0-14.3)	15.5 (14.4-16.3)
					APTT (sec)	41.6 (36.9-44.5)	41.2 (36.9-44.0)	44.8 (40.2-51.0)
					Fibrinogen (g/L)	4.55 (3.66-5.17)	4.51 (3.65-5.09)	5.16 (3.74-5.69)
					D-dimer ($\mu\text{g/mL}$)	0.66 (0.38-1.50)	0.61 (0.35-1.29)	2.12 (0.77-5.27)
					fibrin degradation product(FDP)($\mu\text{g/mL}$)	4.0 (4.0-4.9)	4.0 (4.0-4.3)	7.6 (4.0-23.4)
					AT (%)	91 (83-97)	91 (84-97)	84 (78-90)
			35. To (2020) (66)	observational cohort study	23	Age(y)	Median(IQR), number	Median(IQR), n(%)
Sex		Severe disease (n=10)				Mild disease (n=13)		
Age	62(37-75)	Blood tests on admission						
Male	13	Haemoglobin, g/dL				12.8 (11.6-14.5)	13.5 (10.1-15.2)	
		Haemoglobin <13.7 g/dL (male) or <11.9 g/dL (female)				4 (40%)	6 (46%)	
Female	10	Total WBC count, $\times 10^9$ per L				5.1 (2.4-10.4)	4.9 (3.3-8.1)	
		Total wbc < 3.7×10^9 per L				2 (20%)	2 (15%)	
		Neutrophil count $\times 10^9$ per L				3.6 (1.3-9.5)	3.8 (2.0-5.2)	
		Neutrophils > 5.8×10^9 per L	3 (30%)	0 (0%)				

					Lymphocyte count× 10 ⁹ per L	0-65 (0-30-1-90)	1-03 (0-57-2-25)	
					Lymphocytes <1.0 × 10 ⁹ per L	8 (80%)	5 (38%)	
					Platelet count, × 10 ⁹ per L	170 (92-313)	182 (144-356)	
					Platelets <145 × 10 ⁹ per L	4 (40%)	1 (8%)	
					Sodium, mmol/L	138 (128-142)	139 (134-142)	
					Sodium <136 mmol/L	4 (40%)	1 (8%)	
					Potassium, mmol/L	3-7 (3-1-5-3)	3-8 (2-8-4-3)	
					Potassium <3-4 mmol/L	2 (20%)	2 (15%)	
					Urea, mmol/L	3-9 (3-3-9-4)	4-2 (2-1-9-9)	
					Urea >7-4 mmol/L	2 (20%)	1 (8%)	
					Creatinine, μmol/L	76 (46-129)	62 (54-126)	
					Creatinine >110 μmol/L	1 (10%)	1 (8%)	
					Alkaline phosphatase, U/L	74 (56-149)	60 (38-118)	
					Alkaline phosphatase >97 U/L	2 (20%)	1 (8%)	
					Alanine aminotransferase, U/L	32 (16-88)	26 (9-133)	
					Alanine aminotransferase >53 U/L	1 (10%)	3 (23%)	
36. Wan (2020) (67)	case series	135	Age(y)	All	Median(IQR), n, n(%)			
			Sex	Median(IQR), n(%)		All patients (n=135)	Mild cases(n=95)	Severe cases(n=40)
			Age	47(36-55)	White cell count, ×10 ⁹ /L	5.4(4.1-7.8)	5.5(4.0-8.0)	5.2(4.9-6.9)
			Male	72(53.3%)	<3.5	28	24(25%)	4(10%)
					3.5-9.5	98	65(68%)	33(82.5%)
			Female	63(46.7%)	>9.5	9	6(7%)	3(7.5%)
					Neutrophil count, ×10 ⁹ /L	3.5(2.6-4.4)	3.6(3.0-3.9)	4.1(3.1-5.7)
					Lymphocyte count, ×10 ⁹ /L	1.1(0.7-1.5)	1.2(0.8-1.6)	0.8(0.6-1.0)
					<1.1	68	36(38%)	32(80%)
					≥1.1	67	59(62%)	8(20%)
					Haemoglobin, g/L	133(122-147)	134(124-147)	130(120-143)
					Platelet count, ×10 ⁹ /L	158(131-230)	170(136-234)	147(118-213)
					<125	23(17%)	11(11.6%)	12(30%)
					≥125	112(83%)	84(88.4%)	28/(70%)
					Prothrombin time, s	10.9(10.5-11.4)	10.8(10.4-11.3)	11.3(10.7-11.8)
					Activated partial thromboplastin time, s	26.9(24.7-29)	26.6(24.5-28.8)	29.7(226.2-39.4)
					D-dimer, mg/L	0.4(0.2-0.6)	0.3(0.2-0.5)	0.6(0.4-1.1)
					Albumin, g/L	40.5(37-43.4)	49.9(37.4-43.6)	36(33-38.5)
					Alanine aminotransferase, U/L	26(12.9-33.15)	21.7(14.8-36.9)	26.6(14.5-33.3)
					Aspartate aminotransferase, U/L	33.4(27.8-43.7)	22.4(16.9-30.5)	33.6(25.7-44.2)
					≤40	105	80(84%)	25(62.5%)
					>40	30	15(16%)	15(37.5%)
					Total bilirubin, umol/L	8.6(5.9-13.7)	8.6(5.6-14)	9.8(7.8-15.6)
					Potassium, mmol/L	4(3.55-4.41)	4(3.7-4.5)	3.8(3.5-4.3)
					Sodium, mmol/L	139 (137-141)	139 (137.2-141)	136.5 (133-138)
					Creatime, μmol/	66 (57.8-74.5)	66(55-79)	63.5 (51.5-74.3)
					≤97	129(95.6%)	92(97%)	37(92.5%)
					>97	6(4.4%)	3(3%)	3(7.5%)
					Creatine kinase, U/L	82.2(56.3-146.3)	57(36.5-86.5)	82(56.3-146.2)
					≤200	125(92.6%)	92(97%)	33(82.5%)
					>200	10(7.4%)	3(3%)	7(17.5%)
		Lactate dehydrogenase, U/L	320.5(248.5-385.3)	212(179.5-259)	309(253.8-408.3)			

					≤250	77(57%)	67(71%)	10(25%)
					>250	58(43%)	28(29%)	30(75%)
					C-reactive protein, mg/L	10.5(2.7-51.2)	7.7(1.9-31.1)	91(52.7-136.3)
					Procalcitonin, ng/mL	0.11(0.08-0.16)	0.04(0.03-0.06)	0.11(0.08-0.16)
					<0.1	110(81.5%)	89(94%)	21(52.5%)
					≥0.1-0.25	21(15.6%)	6(6%)	15(37.5%)
					≥0.25-0.5	3(2.2%)	0	3(7.5%)
					≥0.5	1(0.7%)	0	1(2.5%)
37. Wang (2020) (17)	Retrospective, single-center case series	138	Age(y) Sex	Median(IQR), n(%)	Median(IQR), n(%)			
					Total (N = 138)	ICU (n = 36)	Non-ICU (n = 102)	
			Age	56(42-68)	White blood cell count, ×10 ⁹ /L	4.5 (3.3-6.2)	6.6 (3.6-9.8)	4.3 (3.3-5.4)
			Female	63 (45.7)	Neutrophil count, ×10 ⁹ /L	3.0 (2.0-4.9)	4.6 (2.6-7.9)	2.7 (1.9-3.9)
			Male	75 (54.3)	Lymphocyte count, ×10 ⁹ /L	0.8 (0.6-1.1)	0.8 (0.5-0.9)	0.9 (0.6-1.2)
					Monocyte count, ×10 ⁹ /L	0.4 (0.3-0.5)	0.4 (0.3-0.5)	0.4 (0.3-0.5)
					Platelet count, ×10 ⁹ /L	163 (123-191)	142 (119-202)	165(125-188)
					Prothrombin time, s	13.0 (12.3-13.7)	13.2 (12.3-14.5)	12.9 (12.3-13.4)
					Activated partial thromboplastin time, s	31.4 (29.4-33.5)	30.4 (28.0-33.5)	31.7 (29.6-33.5)
					D-dimer, mg/L	203 (121-403)	414 (191-1324)	166(101-285)
					Creatine kinase, U/L	92 (56-130)	102 (62-252)	87 (54-121)
					Creatine kinase-MB, U/L	14 (10-18)	18 (12-35)	13 (10-14)
					Lactate dehydrogenase, U/L	261 (182-403)	435 (302-596)	212(171-291)
					Alanine aminotransferase, U/L	24 (16-40)	35 (19-57)	23 (15-36)
					Aspartate aminotransferase, U/L	31 (24-51)	52 (30-70)	29 (21-38)
					total bilirubin, mmol/L	9.8 (8.4-14.1)	11.5 (9.6-18.6)	9.3 (8.2-12.8)
					Blood urea nitrogen, mmol/L	4.4 (3.4-5.8)	5.9 (4.3-9.6)	4.0 (3.1-5.1)
					Creatinine, μmol/L	72 (60-87)	80 (66-106)	71 (58-84)
					Hypersensitive troponin I, pg/mL	6.4 (2.8-18.5)	11.0 (5.6-26.4)	5.1 (2.1-9.8)
					Procalcitonin, ng/mL ≥0.05, No. (%)	49 (35.5)	27 (75.0)	22 (21.6)
38. Wang (2020) (68)	---	29	Age(y) Sex	Median(IQR), number	Median(IQR), n(%)			
					number=26			
			Age	42.0(33.5-53.3)	Blood Routine			

			Female/Male	15/11	Leucocytes (× 10 ⁹ /L;)			
					Increased			
					Decreased			
					Neutrophils (× 10 ⁹ /L;)			
					Increased			
					Decreased			
					Lymphocytes (× 10 ⁹ /L;)			
					Decreased			
					Monocyte (× 10 ⁹ /L;)			
					Increased			
					Platelets (× 10 ⁹ /L;)			
					Increased			
					Haemoglobin (g/L;)			
					Increased			
					Decreased			
					Coagulation Function Prothrombin time (s;)			
		Increased						

					Decreased	1 (3.9%)
					Activated partial thromboplastin time (s)	28.7 (25.5–33.5)
					Increased	2 (7.7%)
					Decreased	2 (7.7%)
					D-dimer (µg/mL)	0.3 (0.2–0.4)
					Increased	1 (3.9%)
					Blood Biochemistry	---
					Albumin (g/L)	38.7 (35.7–40.6)
					Decreased	5 (19.2%)
					Alanine aminotransferase(U/L)	18.0 (14.0–23.0)
					Aspartate aminotransferase (U/L)	19.5 (16.8–21.3)
					Total bilirubin (µmol/L)	12.2 (10.3–16.3)
					Increased	1 (3.9%)
					Blood urea nitrogen (mmol/L)	3.2 (2.7–3.5)
					Decreased	1 (3.9%)
					Serum creatinine (µmol/L)	55.6 (42.0–61.6)
					Decreased	7 (26.9%)
					Creatine kinase (U/L)	67.5 (50.8–88.8)
					Lactate dehydrogenase (U/L)	216.5 (180.5–240.3)
					Increased	6 (23.1%)
					Creatine kinase-MB (U/L)	13.0 (11.0–17.0)
					Increased	2 (7.7%)
					Glucose (mmol/L)	5.1 (4.9–5.6)
					Increased	4 (15.4%)
					Infection-Related Biomarkers	---
					Procalcitonin (ng/mL)	0.2 (0.1–0.3)
					Increased	24 (92.3%)
					Hypersensitive C-reactive protein (mg/L)	11.5 (1.4–28.7)
					Increased	14 (53.9%)
					Serum amyloid A (mg/L)	12.7 (5.0–66.9)
					Increased	16 (61.5%)
39. Wang (2020) (69)	descriptive study	125	Age(y)	Mean ± SD		Mean ± SD, Median (IQR), n(%)
			Sex	n(%)		n = 125
			Age	38.76 ± 13.799	Blood routine	---
			Female	54(43.2%)	Leucocytes count (10 ⁹ /L)	4.78(3.775-6.11)
					< 3.5	16(12.8%)
					> 9.5	2(1.6%)
			Male	71(56.8%)	Neutrophils count (10 ⁹ /L)	3.27(2.225-4.36)
					< 1.8	9(7.2%)
					> 6.3	3(2.4%)
					Lymphocytes count (10 ⁹ /L)	1.04(0.74-1.335)
					< 1.1	48(38.4%)
					> 3.2	1(0.8%)
					Monocytes count (10 ⁹ /L)	0.34(0.26-0.51)
					> 0.6	13(10.4%)
					Hemoglobin (g/L)	140(129-151)
					< 115	6(4.8%)
					Platelet count (10 ⁹ /L)	167(133-212)
					< 125	21(16.8%)
					> 350	2(1.6%)
					Coagulation function	---
					Prothrombin time (s)	11.6(10.9-12.5)
					< 10.5	12(9.92%)
					> 14.5	1(0.82%)

					Activated partial thromboplastin time (s)	29.38 ± 6.103	
					< 22	6(4.96%)	
					> 38	3(2.48%)	
					D-dimer (mg/L)	0.28(0.20-0.535)	
					> 0.55	28(23.14%)	
					Liver function	---	
					Alanine aminotransferase (U/L)	24(15-38)	
					> 40	26(20.8%)	
					Aspartate transaminase (U/L)	27(21-34)	
					> 35	27(21.6%)	
					Serum total bilirubin (mmol/L)	9.6(6.5-14.55)	
					> 21	9(7.2%)	
					Renal function	---	
					Blood urea nitrogen (mmol/L)	3.8(3.1-4.8)	
					< 3.1	28(22.4%)	
					> 8.8	1(0.8%)	
					Serum creatinine (mmol/L)	64.33±16.163	
					< 35	3(2.4%)	
					> 115	0	
					Myocardial enzyme	---	
					Creatine kinase (U/L)	66.0(44.0-91.5)	
					< 40	12(15.79%)	
					> 200	4(5.26%)	
					Creatine kinase MB (U/L)	9(5-13)	
					> 24	5(6.58%)	
					Lactate dehydrogenase (U/L)	239.0(207.0-291.5)	
					> 250	57(75.0%)	
					Infection-related biomarkers	---	
					C-reactive protein (mg/mL)	15.4(4.2-36.05)	
					> 6	88(70.4%)	
					Procalcitonin (ng/mL)	0.03(0.0176-0.06345)	
					> 0.5	3(2.4%)	
					Interleukin-6 (pg/mL)	18.90(6.85-38.35)	
					> 7	90(72.0%)	
					Serum amyloid protein A (mg/L)	80.80(23.75-177.60)	
					> 10	106(84.8%)	
					ESR (mm/h)	25(9-41)	
					> 15	47(62.7%)	
40. Wang (2020) (70)	---	80	Age(y)	Median(IQR), n(%)	Median(IQR), n(%)		
			Sex		SARS-CoV-2 confirmed (n=57)		
			Age	40(33-49)	White blood cell count, ×10 ⁹ /L	4.31 (3.49-5.27)	
			Male	25 (43.86)	Increased	2 (3.51)	
					Decreased	15 (26.32)	
			Female	32 (56.14)	Neutrophil count, ×10 ⁹ /L	2.43 (1.97-3.55)	
					Increased	5 (8.77)	
					Decreased	11 (19.30)	
					Lymphocyte count, ×10 ⁹ /L	1.09 (0.76-1.49)	
					Increased	-	
					Decreased	30 (52.63)	
					Monocyte count, ×10 ⁹ /L	0.41 (0.32-0.52)	
					Increased	8 (14.04)	
					Decreased	-	

						Platelet count, ×10 ⁹ /L	180.00 (148.00-218.00)	
						Increased	2 (3.51)	
						Decreased	5 (8.77)	
						D-dimer, mg/L	0.40 (0.29-0.57)	
						Increased	-	
						Decreased	-	
						Prothrombin time, s	13.30 (12.90-14.00)	
						Increased	8 (14.04)	
						Decreased	2 (3.51)	
						Activated partial thromboplastin time, s	42.60 (37.70-44.10)	
						Increased	-	
						Decreased	8 (25.81)	
						Creatinine, μmol/L	73.00 (56.00-84.00)	
						Increased	13 (22.81)	
						Decreased	4 (7.02)	
						Creatine kinase, U/L	77.00 (49.00-155.00)	
						Increased	6 (10.53)	
						Decreased	21 (36.84)	
						Lactate dehydrogenase, U/L	205.00 (183.00-253.00)	
						Increased	25 (43.86)	
						Decreased	1 (1.75)	
						Alanine aminotransferase, U/L	18.50 (12.00-26.00)	
						Increased	11 (19.30)	
						Decreased	-	
						Aspartate aminotransferase, U/L	23.50 (19.50-33.00)	
						Increased	16 (28.07)	
						Decreased	-	
41. Wang (2020) (71)	---	69	Age(y)	All		Median(IQR), n/n(%)		
			Sex	Median(IQR),		All Patients (N = 69)	SpO2 ≥ 90% (n = 55)	SpO2<90% (n = 14)
				n(%)				
			Age	42.0 (35.0–62.0)	White blood cell count, ×10 ⁹ /L	3.82 (2.98–5.57)	3.57 (2.96–4.93)	6.52 (4.30–7.73)
			Male	32 (46%)	<4	36/67 (54%)	33/53 (62%)	3/14 (21%)
					4–10	30/67 (45%)	20/53 (38%)	10/14 (71%)
			Female	37 (54%)	>10	1/67 (1%)	0/53	1/14 (7%)
					Neutrophil count, ×10 ⁹ /L	2.35 (1.62–3.67)	2.16 (1.60–2.70)	5.24 (2.90–6.44)
					≤2	26/67 (39%)	24/53 (45%)	2/14 (14%)
					>2	41/67 (61%)	29/53 (55%)	12/14 (86%)
					Lymphocyte count, ×10 ⁹ /L	1.15 (0.82–1.46)	1.19 (0.95–1.46)	0.61 (0.37–1.00)
					<1.1	28/67 (42%)	17/53 (32%)	11/14 (79%)
					≥1.1	39/67 (58%)	36/53 (68%)	3/14 (21%)
					Monocyte count, ×10 ⁹ /L	0.31 (0.23–0.44)	0.31 (0.24–0.46)	0.27 (0.14–0.41)
					Eosinophil count, ×10 ⁹ /L	0.01 (0.00–0.02)	0.01 (0.00–0.02)	0.00 (0.00–0.01)
					<0.02	48/67 (72%)	37/53 (70%)	11/14 (79%)
					≥0.02	19/67 (28%)	16/53 (30%)	3/14 (21%)
					Hemoglobin, g/L	130.00 (118.00–140.00)	131.00 (121.00–141.00)	128.00 (117.00–136.00)
					Platelet count, ×10 ⁹ /L	171.00 (142.00–211.00)	172.00 (138.00–206.00)	167.00 (144.00–215.00)
					Alanine aminotransferase, U/L	25.00 (17.00–40.00)	24.00 (16.00–40.00)	31.50 (23.00–52.00)
					≤35	46/69 (67%)	38/55 (69%)	8/14 (57%)
					>35	23/69 (33%)	17/55 (31%)	6/14 (43%)
					Aspartate aminotransferase, U/L	28.00 (22.00–42.00)	26.00 (21.00–39.00)	40.50 (24.00–62.00)
					≤40	50/69 (72%)	43/55 (78%)	7/14 (50%)
					>40	19/69 (28%)	12/55 (22%)	7/14 (50%)
					Creatinine, μmol/L	66.35 (58.00–79.65)	65.30 (58.00–78.50)	71.50 (52.50–80.40)

					Lactate dehydrogenase, U/L	224.00 (183.00–291.00)	207.00 (181.00–274.00)	517.50 (267.00–549.00)		
					≤245	36/61 (59%)	34/49 (69%)	2/12 (17%)		
					>245	25/61 (41%)	15/49 (31%)	10/12 (83%)		
					C-reactive protein, mg/L	13.20 (6.78–49.00)	11.30 (6.53–26.30)	81.55 (48.85–105.90)		
					<8	21/63 (33%)	20/51 (39%)	1/12 (8%)		
					8–50	28/63 (44%)	26/51 (51%)	2/12 (17%)		
					50–100	8/63 (13%)	2/51 (4%)	6/12 (50%)		
					≥100	6/63 (10%)	3/51 (6%)	3/12 (25%)		
					Procalcitonin, µg/L	0.13 (0.13–0.15)	0.13 (0.13–0.15)	0.13 (0.13–0.15)		
					<0.5	58/62 (94%)	46/50 (92%)	12/12 (100%)		
					≥0.5	4/62 (6%)	4/50 (8%)	0/12		
					Erythrocyte sedimentation rate, mm/h	20.00 (8.00–31.00)	17.00 (7.00–25.00)	30.00 (27.00–49.00)		
					<20	28/58 (48%)	27/45 (60%)	1/13 (8%)		
					≥20	30/58 (52%)	18/45 (40%)	12/13 (92%)		
42. Wu (2020) (72)	---	80	Age(y)	Total Mean±SD	Median(IQR), n(%)					
			Sex	N(%)	Result Range	Above Normal Range	Below Normal Range			
			Age	46.10 ± 15.42	Blood routine examination	---				
			Female	41 (51.25)	White blood cell count (×10 ⁹ /L)	4.1 (3.2–5.7)	5 (6.25)	36 (45.00)		
			Male	39 (48.75)	Neutrophil count (×10 ⁹ /L)	4.3 (2.3–5.9)	20 (25.00)	---		
					Lymphocyte count (×10 ⁹ /L)	0.6 (0.4–1.0)	---	26 (32.50)		
					Monocyte count (×10 ⁹ /L)	0.5 (0.3–0.7)	15 (18.75)	---		
					Platelet count (×10 ⁹ /L)	155 (116–188)	0 (0.0)	11 (13.75)		
					Hemoglobin (g/L)	125.3 (13.4)	---	29 (36.25)		
					Coagulation function	---	---	---		
					Activated partial thromboplastin time (s)	18.6 (17.2–28.6)	---	2 (2.50)		
					Prothrombin time (s)	10.8 (9.3–13.2)	---	3 (3.75)		
					D-dimer (µg/L)	0.9 (0.4–2.4)	3 (3.75)	---		
					Blood biochemistry	---	---	---		
					Alanine aminotransferase (U/L)	24 (12–38)	3 (3.75)	---		
					Aspartate aminotransferase (U/L)	30 (19–39)	3 (3.75)	---		
					Albumin (g/L)	38.3 (37.0–46.2)	---	2 (2.50)		
					Total bilirubin (µmol/L)	6.6 (5.4–12.0)	1 (1.25)	---		
					Blood urea nitrogen (mmol/L)	4.9 (3.4–5.9)	2 (2.50)	---		
					Serum creatinine (µmol/L)	78 (60–90)	2 (2.50)	---		
					Lactate dehydrogenase (U/L)	226 (182–308)	17 (21.25)	---		
					Glucose (mmol/L)	6.8 (4.6–7.7)	19 (23.17)	---		
					Creatine kinase (U/L)	99 (61–191)	18 (22.50)	---		
					Creatine kinase–muscle/brain (U/L)	22 (15–25)	16 (20.00)	---		
					Infection-related biomarkers	---	---	---		
					C-reactive protein ≥5.0 (mg/L)	6.6 (5.3–12.3)	62 (77.50)	---		
					Procalcitonin ≥5.0 (ng/mL)	1.3 (0.4–2.6)	1 (1.25)	---		
					Erythrocyte sedimentation rate ≥15 (mm/h)	11.9 (9.0–17.2)	59 (73.75)	---		
			43. Wu (2020) (73)	case series	38	Age(y)	Total Median(IQR),	Mean(SD)		
						Sex	N(%)	Total (N = 38)	Ocular symptoms Yes (n = 12)	Ocular symptoms No (n = 26)

			Age	68 (53 to 76)	White blood cell count, / μ L	7360 (4480)	10 900 (5580)	5730 (2690)
					Lymphocyte count, / μ L	890 (500)	710 (480)	980 (490)
			Male	25 (65.8)	Neutrophil count, / μ L	5920 (4640)	9510 (5820)	4260 (2820)
					Monocyte count, / μ L	500 (210)	620 (280)	440 (150)
					Platelet count, $\times 10^3/\mu$ L	184.39 (77.28)	184.58 (89.70)	184.31 (72.80)
					PCT ≥ 0.05 ng/mL, No. (%)	15 (40.5)	8 (66.7)	7 (28.0)
					CRP, mg/dL	5.17 (6.30)	8.55 (8.87)	3.61 (4.02)
					D-dimer, μ g/mL	1.76 (2.42)	2.96 (3.93)	1.35 (1.53)
					Creatine kinase, U/L	101.82 (85.81)	91.08 (58.35)	106.77 (96.53)
					Creatine kinase-MB, ng/mL	11.87 (5.67)	12.42 (4.94)	11.62 (6.05)
					LDH, U/L	281.11 (154.47)	381.7(196.52)	234.65 (105.89)
					Alanine aminotransferase, U/L	31.08 (27.46)	39.83 (45.25)	27.04 (12.69)
					Aspartate aminotransferase, U/L	35.58 (26.58)	45.33 (41.73)	31.08 (14.58)
					Urea nitrogen, mg/dL	41.24 (128.83)	20.21 (15.37)	50.94 (155.41)
					Creatinine, mg/dL	1.61 (2.84)	1.94 (3.81)	1.46 (2.34)
44. Xia (2020) (74)	Retrospective study	20	Sex	N(%)		Number(%)		
						All=20		
			Age	--	WBC, $\times 10^9/L$			
			Male	13 (65%)	<5.50	4 (20%)		
			Female	7 (35%)	5.50-12.20	14 (70%)		
					>12.20	2 (10%)		
					lymphocyte%			
					<45	7 (35%)		
					45-65	10 (50%)		
					>65	3 (15%)		
					CRP, mg/L			
					≤ 3	13 (65%)		
					>3	7 (35%)		
					PCT, mg/L			
					≤ 0.05	4 (20%)		
					>0.05	16 (80%)		
					ALT, IU/L			
		≤ 40	15 (75%)					
		>40	5 (25%)					
		CK-MB, IU/L						
		≤ 25	15 (75%)					
		>25	5 (25%)					
45. Xie (2020) (75)	retrospective study	79	Age	Median (IQR)		Median(IQR)		
			Sex	%		Overall (n = 79)	Moderate (n = 51)	Severe (n = 28)
			Age	60.0(48.0-66.0)	White blood cell count ($\times 10^9$ cells per L)	5.2 (4.3-6.9)	4.9 (4.1-6.8)	5.5 (4.5-7.7)
			Male	55.7	Lymphocyte count ($\times 10^9$ cells per L)	1.2 (0.9-1.6)	1.2 (0.9-1.6)	1.1 (0.7-1.6)
					Neutrophil count ($\times 10^9$ cells per L)	3.7 (2.8-5.3)	3.7 (2.7-5.1)	3.8 (3.2-5.7)
					Total bilirubin (μ mol/L)	13.6 (8.8-17.6)	13.9 (8.9-18.7)	12.7 (8.1-15.4)
					ALT (IU/L, baseline)	34 (18-67)	30.0 (21.0-43.5)	36.5 (17.5-71.5)
					ALT (IU/L, post-treatment)	26 (20-31)	28 (19-34)	25 (20-32)
					AST (IU/L, baseline)	30 (23-50)	28 (22-48)	35 (25-55)
					AST (IU/L, post-treatment)	28 (20-33)	26 (22-30)	26 (23-32)

					γ-GT (IU/L)	31.5 (19.0-81.3)	25.5 (18.5-97.3)	35.5 (23.8-82.8)
					ALP (IU/L)	79.0 (59.0-100.0)	80 (60-114.3)	75.5 (59.0-93.0)
					Creatinine (μmol/L)	69.8 (59.0-79.6)	70.2 (57.7-79.3)	68.7 (60.8-80.3)
					C-reactive protein(mg/L)	13.9 (3.1-51.9)	11.0 (2.3-32.0)	35.2 (6.5-61.7)
					ESR (mm/h)	39 (24-58)	36.0 (19.6-52.8)	45.4 (26.5-65.5)
					D-dimer (μg/mL)	0.69 (0.33-1.35)	0.67 (0.31-1.34)	0.70 (0.43-2.36)
						Median(IQR)		
						Patients without liver injury (n = 50)	Patients with liver injury (n = 29)	
					White blood cell count (×10 ⁹ cells per L)	4.8 (4.1-6.1)	6.3 (4.6-7.7)	
					Lymphocyte count (×10 ⁹ cells per L)	1.3 (1.0-1.7)	1.2 (0.8-1.5)	
					Neutrophil count (×10 ⁹ cells per L)	3.6 (2.7-4.5)	4.7 (3.5-5.7)	
					ALT (IU/L, baseline)	23 (14-33)	74 (61-116)	
					ALT (IU/L, post-treatment)	24 (22,27)	27 (24,31)	
					AST (IU/L, baseline)	25 (20-30)	59 (46.5-74.5)	
					AST (IU/L, post-treatment)	23 (20,30)	28 (22,30)	
					γ-GT (IU/L)	23.0 (18.5-35.5)	97.0 (55.0-173.0)	
					ALP (IU/L)	76.0 (56.8-92.0)	89.0 (71.0-143.0)	
					C-reactive protein (mg/L)	6.0 (1.6-39.4)	31.1 (13.5-70.5)	
					ESR (mm/h)	35.0 (20.5-55.9)	45.0 (26.0-61.0)	
					D-dimer (μg/mL)	0.5 (0.3-1.3)	0.9 (0.6-2.6)	
46. Xiong (2020) (76)	Retrospective study	42	Age (y)	Mean±SD		Mean(SD), n/n(%)		
			Sex	n/n		All		
			Age	49.5 ± 14.1	White blood cell count, ×10 ⁹ /L	5.5 ± 2.0		
			Male	25 (60%)	<4	10/37 (27%)		
					4-10	26/37 (70%)		
					>10	1/37 (3%)		
					Neutrophil count, ×10 ⁹ /L	3.8 ± 1.8		
					Lymphocyte count, ×10 ⁹ /L	1.2 ± 0.6		
					<1.0	18/37 (49%)		
					≥1.0	19/37 (51%)		
					CRP, mg/L	47.5 ± 51.3		
					<10	5/32 (16%)		
					≥10	27/32 (84%)		
					ESR, mm/H	30.6 ± 29.0		
					<20	12/22 (55%)		
					≥20	10/22 (45%)		
					LDH, U/L	280.7 ± 94.5		
					≤245	11/26 (42%)		
					>245	15/26 (58%)		
					Procalcitonin, ng/mL	0.2 ± 0.3		
		<0.1	19/30 (63%)					
		0.1-0.5	8/30 (27%)					
		>0.5	3/30 (10%)					
		D-dimer, mg/L	0.8 ± 0.8					
47. Yang (2020) (3)	Retrospective multi-center cohort study	149	Age (y)	Mean±SD		Mean(SD), N(%) Mean±SD		
			Sex	n/n		All		
			Age	45.11 ± 13.35	leucocyte (× 10 ⁹ per L)	4.56 (2.48)		
			Male/Female	81/68	increased	2 (1.34%), 10.54 ± 1.36 33		
					decreased	(24.16%), 3 ± 0.42		
					neutrophil (× 10 ⁹ per L)	2.60 (2.03)		
					increase	6 (4.03%), 7.56 ± 0.94 34		
					decreased	(22.82%), 1.5 ± 0.28		
					lymphocyte (× 10 ⁹ per L)	1.21 (0.68)		
					decreased	53 (35.57%), 0.85 ± 0.21		
		platelet (× 10 ⁹ per L)	174.5 (78.25)					

					increased	8 (5.37%), 389.33 ± 23.11		
					decreased	20 (13.42%), 107 ± 12.73		
					Blood coagulation			
					active partial thrombin time (s)	33.29 ± 4.98		
					Increased	40 (26.85%), 37 ± 0.99		
					Prothrombin time (s)	12.20 ± 1.53		
					increased	17 (11.41%), 13.65 ± 0.07		
					Decreased	4 (2.68%), 9.75 ± 0.07		
					D-dimer (mg/L)	0.22 (0.28)		
					increased	21 (14.09%), 0.57 ± 0.01		
					Blood biochemistry			
					albumin (g/L)	41.65 (5.48)		
					Increased	3 (2.01%), 62.97 ± 1.67		
					Decreased	9 (6.04%), 30.83 ± 4.97		
					ALT (IU/L)	20 (20.5)		
					increased	18 (12.08%), 97.00 ± 42.52		
					decreased	2 (1.34%), 8.00 ± 1.41		
					AST (IU/L)	23 (15.75)		
					Increased	27 (18.12%), 63.04 ± 25.60		
					total bilirubin (μmol/L.)	9.9 (5.95)		
					increased	4 (2.68%), 26.5 ± 1.70		
					decreased	7 (4.70%), 2.75 ± 1.06		
					urea nitrogen (mmol/L.)	3.8 (1.4)		
					decreased	17 (11.41%), 1.80 ± 0.28		
					creatinine (μmol/L.)	66.07 ± 14.79		
					increased	43 (28.86%), 74.33 ± 0.52		
					decreased	1 (0.67%), 36		
					CK (mmol/L.)	76.5 (53.5)		
					increased	12 (8.05%), 217.00 ± 18.39		
					decreased	19 (12.75%), 25.50 ± 0.71		
					LDH (U/L)	210 (94.5)		
					Increased	45 (30.20%), 322.64 ± 68.25		
					Glucose (mmol/L.)	5.83 (1.97)		
					increased	59 (39.60%), 6.17 ± 0.04		
					decreased	1 (0.67%), 2.93		
					Infection-associated			
					C-reactive protein (mg/L.)	7.25 (23)		
					Increased	82 (55.03%), 6.36 ± 0.09		
48. Young (2020) (77)	Descriptive case series	18	Age(Y) Sex	Median(IQR) N(%)		Median(IQR)		
						All patients (N = 18)	Did not require supplemental O2 (n = 12)	Required supplemental O2 (n=6)
			Age	47 (31-73)	WBCs, ×10 ⁹ /L	4.6 (1.7-6.3)	4.6 (1.7-6.3)	3.4 (2.6-5.8)
			Male	9 (50)	Hemoglobin, g/dL	13.5 (11.7-17.2)	13.9 (11.7-17.2)	13.2 (11.7-14)
					Platelets, ×10 ⁹ /L	159 (116-217)	159 (128-213)	156 (116-217)
					Neutrophils, ×10 ⁹ /L	2.7 (0.7-4.5)	2.8 (0.7-4.5)	1.8 (1.2-3.7)
					Lymphocytes, ×10 ⁹ /L	1.2 (0.8-1.7)	1.2 (0.8-1.6)	1.1 (0.8-1.7)
					C-reactive protein, mg/L	16.3 (0.9-97.5)	11.1 (0.9-19.1)	65.6 (47.5-97.5)
					LDH, U/L	512 (285-796)	424 (285-748)	550 (512-796)
			49. Zhang (2020) (28)	retrospective, single-center study,	221	Age(y) Sex	Total Median(IQR),N(%)	
	Total (n = 221)	Severe (n = 55)						Non-severe (n = 166)
Age	55.0 (39.0–66.5)	White blood cell count (×10 ⁹ /L.)				4.4 (3.2–6.6)	6.2 (4.1–9.4)	4.1 (3.1–5.8)
Male	108 (48.9)	<3.5				73 (33.0)	11 (20.0)	62 (37.3)
		3.5–9.5				125 (56.6)	31 (56.4)	94 (56.6)
Female	113 (51.1)	>9.5				23(10.4)	13(23.6)	10(6.0)
		Neutrophil count (×10 ⁹ /L.)	3.0 (1.9–5.1)	5.4 (2.8–8.4)	2.6 (1.8–4.0)			

					Lymphocyte count ($\times 10^9 / L$);	0.8 (0.6–1.1)	0.7 (0.4–0.9)	0.9 (0.6–1.2)	
					<0.5	39(17.6)	18(32.7)	21(12.7)	
					0.5–1.1	124 (56.2)	30 (54.5)	94 (56.6)	
					>1.1	58 (26.2)	7 (12.7)	51 (30.7)	
					Monocyte count ($\times 10^9 / L$);	0.4(0.3-0.5)	0.4(0.3-0.5)	0.4(0.3-0.5)	
					Platelet count ($\times 10^9 / L$);	175 (127–209)	169 (111–202)	175 (136–213)	
					Prothrombin time (s);	12.9 (12.1–13.6)	13.4 (12.3–14.8)	12.7 (12.1–13.4)	
					Activated partial thromboplastin time (s);	31.1 (29.1–33.1)	31.1 (29.0–34.9)	31.1 (29.1–33.0)	
					D-dimer (ng/mL);	227 (129–485)	443 (211–1304)	184 (118–324)	
					Hypersensitive troponin I (pg/mL);	7.6 (3.6–21.5)	14.9 (6.9–55.3)	5.4 (2.2–9.7)	
					Creatine kinase (U/L);	87 (55–143)	121 (73–268)	75 (53–122)	
					Creatine kinase-MB (U/L);	13 (10–17)	18 (14–35)	12 (10–15)	
					Lactate dehydrogenase (U/L);	227 (174–367)	424 (287–591)	204 (167–290)	
					Alanine aminotransferase(U/L);	23 (16–39)	32 (22–57)	22 (14–33)	
					Aspartate aminotransferase (U/L);	29 (22–49)	51 (29–78)	27 (20–38)	
					Total bilirubin (mmol/L);	10.0 (8.0–14.2)	11.4 (8.6–17.4)	9.6 (7.9–13.8)	
					Blood urea nitrogen (mmol/L);	4.3 (3.4–5.6)	5.8 (4.3–8.5)	4.0 (3.3–5.0)	
					Creatinine ($\mu\text{mol/L}$);	69(56-84)	75(64-108)	67(55-79)	
					Procalcitonin (ng/mL);	---	---	---	
					<0.05	150 (67.9)	15 (27.3) 28	135 (83.1)	
					0.05–1.00	58 (26.2)	(50.9) 12	30 (18.1)	
					>1.00	13 (5.9)	(21.8)	1 (0.6)	
50. Zhang (2020) (78)	single-centered, retrospective, observational study	19	Age(y)	Median(IQR), number		Median(IQR)			
			Sex			Survivors (n = 11)	Non-survivors (n = 8)	All patients (n =19)	
			Age	73 (38–91)	Clinical laboratory index,	--	---	---	
			Male	11	Hypersensitive C-reactive protein (mg/L)	86.9 (47.9–120.5)	166.15 (82.3–129.4)	95.4 (54.1–120.5)	
			Female	8	Serum amylase A (mg/L)	65.7 (56.9–100.8)	95.1 (54.8–79.8)	64.3 (56.4–94.6)	
					Aminotransferase (U/L)	39.5 (26.4–77.5)	50.9 (43.2–71.2)	47.2 (29.7–75.8)	
					Albumin (g/L)	36 (31.8–37.3)	33.65 (29.2–34.7)	34.1 (30.9–36.7)	
				D-dimer (mg/L FEU)	0.48 (0.42–0.97)	2.15 (1.4–9.2)	0.91 (0.475–2.35)		
51. Zhang (2020) (79)	retrospective analysis	120	Age(y)	Median (IQR) N(%)		Mean(SD)			
			Sex			All (N=120)	Common type (n =90)	Severe type (n =30)	
			Age	45.4 (15.6)	Laboratory findings	--			
			Male	43 (36%)	WBC, $10^9/L$	5.0 (2.2)	4.7 (1.7)	5.9 (3.2)	
					N, $10^9/L$	2.0 (1.7)	1.6 (1.1)	3.1 (2.6)	
					L, $10^9/L$	2.4 (1.8)	2.5 (1.5)	2.1 (2.6)	
		LDH, U/L	235.6 (109.6)	200.8 (55.9)	342.8 (157.2)				
52. Zhang (2020) (80)	retrospective study	645	Age(Y)	Mean \pm SD,N(%)		Median(IQR), Mean \pm SD			
			Sex			Normal imaging(n=72)		Abnormal imaging (n=573)	
				Normal image	Abnormal image	Blood routine		--	
			Age	34.90 \pm 14.20	46.65 \pm 13.82	Leucocytes ($\times 10^9$ per L);		5.42 \pm 2.00	5.01 \pm 1.87
			Male	33(45.8%)	295(51.5%)	Neutrophils ($\times 10^9$ per L;)		3.48 \pm 1.88	3.29 \pm 1.68

Zheng (2020) (82)	cross-sectional multicenter study		Age	3 (2-9)	White blood cells($10^9/L$)	6.2 (4.30-9.85)		
			Male	14 (56%)	Lymphocytes ($10^9/L$)	2.19 (1.15-3.31)		
			Female	11 (44%)	Alanine aminotransferase (U/L)	12 (10-13)		
					Creatine kinase isoenzyme (U/L)	19 (13-36)		
					C-reaction protein (mg/L)	14.5 (0.93-25.04)		
56. Zheng (2020) (83)	retrospective analysis	161	Age(y) Sex	Median(IQR), N(%)		Median(IQR), n(%)		
						All patients (N=161)	Non-severe (N=131)	Severe (N=30)
			Age	45 (33.5-57)	Wbc count ($\times 10^9$)	4.36 (3.33, 5.42)	4.17 (3.33, 5.24)	4.76 (3.18, 5.74)
			Male	80 (49.7%)	<4.0	66 (41.0%)	57(43.5%)	9 (30%)
			Female	81 (50.3%)	4.0-10.0	92 (57.1%)	71(54.2%)	21 (70%)
					>10.0	3 (1.9%)	3 (2.3%)	0
					Hemoglobin (g/L)	130 (120,141)	131 (121,141)	126 (118,141)
					<110	13 (8.1%)	11 (8.4%)	2 (6.7%)
					Platelet count ($\times 10^9$)	168 (131,220)	171 (137,221)	160 (133,214)
					<100	11 (6.8%)	8 (6.1%)	3 (10%)
					Lymphocyte count ($\times 10^9$)	1.07 (0.77, 1.43)	1.12 (0.84,1.45)	0.85 (0.69, 1.06)
					<0.8	42 (26.1%)	29 (22.1%)	13 (43.3%)
					Oxygenation index	366 (316,393)	373 (345,400)	259 (247,278)
					Alanine aminotransferase (u/L)	20.3 (15.0, 24.5)	19.3 (14.6,17.8)	23.9 (17.6, 35.3)
					>40	13 (8.1%)	8 (6.1%)	5 (16.7%)
					Aspartate aminotransferase (u/L)	25.1 (19.9, 32.8)	23.4 (19.0,28.8)	31.6 (25.9, 49.36)
					>40	22 (13.7%)	10 (7.6%)	12 (40%)
					Total bilirubin (umol/L)	10.9 (8.37, 15.43)	10.7(8.18, 15.3)	12.7 (9.2, 16.9)
					>20.5	9 (5.6%)	6 (4.6%)	3 (10%)
					Serum creatinine (umol/L)	48.2 (38.9, 58.2)	48.3(38.8, 57.9)	47.5 (39.2, 64.2)
					>87	2 (1.2%)	1 (0.8%)	1 (3.3%)
					Creatine kinase (u/L)	72.9 (45.4, 72.2)	68.7(43.2, 111.3)	100.3 (61.3, 398.6)
					>190	17 (10.6%)	8 (6.1%)	9 (30%)
					Lactate dehydrogenase (u/L)	177.1 (141.0, 221.9)	162.0(133.7, 208.5)	226.2(193.5, 315.1)
					>225	38 (23.6%)	23(17.6%)	15 (50%)
					C-reactive protein, mg/L	17.9 (8.1, 36.7)	15.4 (5.8, 24.9)	52.2 (28.8, 75.1)
		>8	121 (75.2%)	91 (69.5%)	30 (100%)			
57. Zheng (2020) (84)	retrospective, single-center case series	99	Age(y) Sex	Mean(SD) N(%)		Mean \pm SD		
						Critical (N=32)	Non Critical (N=67)	All (N=99)
			Age	49.40 \pm 18.45	WBC($10^9/l$)	7.00 \pm 3.09	5.83 \pm 2.33	6.21 \pm 2.64
			Male	51 (52%)	NEU($10^9/l$)	5.42 \pm 2.84	3.78 \pm 2.08	4.31 \pm 2.46
					LYM($10^9/l$)	2.19 \pm 1.44	1.64 \pm 1.12	1.81 \pm 1.26
					CRP(mg/l)	49.63 \pm 48.11	12.93 \pm 18.48	24.79 \pm 35.49
					ALT(u/l)	42.37 \pm 48.88	31.68 \pm 27.75	35.16 \pm 36.09
					AST(u/l)	51.23 \pm 88.67	26.53 \pm 12.73	34.59 \pm 52.44
					CKMB(ng/mL)	3.55 \pm 5.34	6.32 \pm 6.94	5.42 \pm 6.57
					myoglobin (ng/mL)	97.50 \pm 229.10	28.96 \pm 17.22	53.10 \pm 139.19
					high-sensitivity troponin T (pg/mL)	24.80 \pm 37.77	5.47 \pm 2.58	12.28 \pm 24.13
					NTproBNP(pg/mL)	1085.55 \pm 3217.11	66.92 \pm 90.85	430.72 \pm 1965.34
					PT(s)	13.49 \pm .96	12.91 \pm .63	13.10 \pm .80
					FDP(ug/mL)	6.72 \pm 8.36	2.65 \pm 2.33	4.03 \pm 5.53
					D	2.65 \pm 3.93	.78 \pm .76	1.41 \pm 2.51

						Dimer(ug/mL)					
						273.92±185.21		553.25±377.81			
						202.31±144.31		349.13±256.50			
								471.65±355.85			
								306.24±238.28			
58. Zhou (2020) (85)	retrospective study	72	Age (y) Sex	Mean±SD N(%)		Mean±SD, Median(IQR)					
						Early-stage group (n = 34)		Progressive-stage group (n = 28)			
			Early-stage		Progressiv estage		CRP (mg/L)	15.98 (1.78–55.98)		35.62 (5.63–63.04)	
							White blood cell count (×10 ⁹ /L)	5.78 ± 1.93		6.24 ± 3.55	
			Age	44.32 ± 13.53	50.82 ± 13.23	Neutrophil count (×10 ⁹ /L)	0.71 ± 0.13		0.74 ± 0.11		
			Male	18 (52.9%)	16 (57.1%)	Lymphocyte count (×10 ⁹ /L)	1.04 ± 0.49		0.97 ± 0.46		
							Platelet count (×10 ⁹ /L)	180.79 ± 66.83		190.18 ± 73.91	
							Hemoglobin (g/dL)	13.72 ± 1.79		13.69 ± 1.80	
							Procalcitonin (ng/mL)	0.05 (0.04–0.07)		0.07 (0.04-0.11)	
			59. Zhu (2020) (86)	---	All Suspected, N=116 Diagnosed, N=32 Negative, N=84	Age(y) Sex	Diagnosed, Median (IQR), N(%)	Mean±SD Median(IQR), N(%)			
Diagnosed patients(n=32)											
						White blood cell count (×10 ⁹ /L)	5.3±2.1(2.1-11 .1)				
Age		46(35-52)				>9.5	1(3)				
						<3.5	7(22)				
						Neutrophil count (×10 ⁹ /L)	3.7±1.9(1.4- 8. 7)				
Male		15(47)				>6.3	3(9)				
						Lymphocyte count (×10 ⁹ /L)	1.1±0.6(0.3-2. 8)				
						<1.1	19(59)				
						Lymphocyte percentage (%)	24.6±10.8(7.551.1)				
						<20	10(31)				
						Haemoglobin (g/L)	135.1±23.9(78 -168)				
						Platelet count (×10 ⁹ /L):	157.2±54.5(83 -284)				
						D-dimer (mg/L)	0.2±0.2(0.01-0 .9)				
						>0.55	3(9)				
						<0.55	29(91)				
						Alanine aminotransfer ase (U/L)	30.1±31.2(8-1 71)				
						Aspartate aminotransfer ase (U/L)	31.1±15.8(1579)				
						Potassium (mmol/L)	4.0±0.4(3.2-5. 1)				
						Sodium (mmol/L)	136.0±3.7(123 -142)				
						Creatine (μmol/L)	70.7±19.6(33- 117)				
						Creatine kinase (U/L)	132.6±118.1				
						Lactate dehydrogenas e(U/L)	(30.4-570.1)				
						Procalcitonin (ng/mL)	246.5±82.1(13 6-468)				
						>0.5	0.1±0.1(0.01-0 .28)				
						<0.5	0(0)				
						ESR (mm/h)	31(97)				
						>20	42.4±33.6(6-1 19)				
						<20	16(50)				
						CD4/CD8	10(29)				
						IL-6 (pg/ml)	1.5±0.6(0.4-2. 9)				
						>7	7(22)				
				<7	19(59)						
				C-reactive protein (mg/L)	20.7±24.0(0.5112)						
				>8	21(66)						
				<8	11(34)						
60. Cai (2020) (32)	---	298	Age (y) Sex	Median (IQR), N(%)	Median(IQR), n(%)						
					Non-Severe N=240		Severe N=58				

			Age	47(33-61)	Lymphocyte count($\times 10^9/L$)	1.3 (1.0-1.8)	0.97 (0.65-1.19)
			Male/Female	149/149	Lymphocyte $<1.1*1$	75(31.3)	39(67.2)
					CRP(mg/dL)	14.24 (4-34.38)	62.9 (32.99-110.67)
					CRP >8 U/L	142(59.2)	54(93.1)
					IL-6(ng/L)	12.0(6.4-19.7)	38.8(22.7-57.2)
					IL-6 >7	110(45.8)	36(62.1)
					ESR (mm/h)	25(14-42.3)	49(39.5-62.5)
					ESR > 20 mm/h	82(34.2)	35(60.3)
					D-Dimer (mg/L)	0.35(0.25-0.52)	0.96(0.54-1.925)
					D-Dimer >0.5 mg/L	60(25.0)	39(67.2)
					CK >200 U/L	3(1.3)	6(10.3)
					LDH >250 U/L	4(1.7)	15(25.9)
					Myoglobin >110 U/L	1(0.4)	9(15.5)