

Supplementary

Table S1 Chest CT findings of COVID-19 in children

First author (reference No.)	Year	Country	Children sample size	Female number	Male Number	Average age (years)	Normal CT	Abnormal CT, N %, (95% CI)	Sample size (CT)	CT findings	Number of cases
Hong-Rui Chen (34)	2020	China	1	0	1	12	0	1	1	Unilateral Right lung RUL Upper zones GGO Pleural effusion	1
Qihong Fan (35)	2020	China	1	1	0	0.25	1	0	1	Normal	1
Li-Na Ji (36)	2020	China	2	0	2	12	2	0	2	Normal	2
Ke Bai (37)	2020	China	25	11	14	11	12	13, 52% (31–71%)	25	Consolidation GGO Blurred bronchovascular bundle Normal	2
Zhong Zheng (38)	2020	China	9	5	4	6.5	2	7	9	Unilateral Bilateral Right lung Left lung RUL RML RLL LLL Upper zones Middle zones Lower zones Subpleural distribution Peribronchovascular distribution Consolidation GGO Normal	6
Fang Zheng (39)	2020	China	25	11	14	3	9	16, 64% (42–82)	25	Unilateral Bilateral Consolidation Patchy morphology Normal	4
Liang Su (40)	2020	China	9	6	3	3	5	4	9	Bilateral Right lung Left lung Consolidation GGO Patchy morphology Reticulation Tree-in-bud Bronchiolar dilatation Bronchial wall thickening Normal	4
Qinxue Shen (41)	2020	China	9	6	3	8	7	2	9	Unilateral Bilateral GGO Normal	2
Wei Xia (42)	2020	China	20	7	13	2.1	4	16, 80% (56–94)	20	Unilateral Bilateral Subpleural distribution Consolidation GGO Halo sign Nodular morphology Reticulation Normal	6
Jafar Soltani (43)	2020	Iran	30	16	14	5.5	4	26, 86% (69–96)	30	Consolidation GGO Halo sign Nodular morphology Reticulation Pleural effusion Mediastinal LAP Normal	11
Xiaoping Yin (44)	2020	China	1	0	1	9	0	1	1	Unilateral Right lung RML Middle zones Reticulation	1
Buyun Shi (45)	2020	China	1	0	1	0.225	0	1	1	Bilateral Right lung Left lung RML LLL Middle zones Lower zones Consolidation GGO	2
Sharon Steinberger (46)	2020	US	30	15	15	10	23	7, 23% (9–42)	30	Bilateral Right lung Left lung RML LLL Middle zones Lower zones Consolidation GGO Bilateral Right lung	2

Table S1 (continued)

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Tongqiang Zhang (47)	2020	China	3	0	3	7.6	0	3	3	Left lung RML LLL Middle zones Lower zones Consolidation GGO Normal	1 1 1 1 1 1 23
Yu-Pin Tan (48)	2020	China	10	7	3	7	5	5, 50% (10-33)	10	Bilateral Right lung Left lung RLL LLL Lower zones Subpleural distribution GGO Reticulation	3 3 3 1 2 3 2 1
Yanli Wang (49)	2020	China	43	16	27	6.6	17	26, 60% (44-75)	43	Unilateral Bilateral Lower zones Air bronchogram GGO Nodular morphology Reticulation Bronchial wall thickening Normal	1 4 4 1 4 1 1 5
Yang li (50)	2020	China	8	5	3	2.5	1	7	8	Unilateral Bilateral Right lung Left lung RUL LUL Upper zones Middle zones Lower zones Peribronchovascular distribution Consolidation GGO Halo sign Nodular morphology Patchy morphology Lucency shadows Normal	4 3 6 4 2 1 3 2 3 1 4 2 1 2 1 1
Li-Juan Mao (51)	2020	China	1	0	1	1.16	0	1	1	Unilateral Right lung RLL Lower zones Subpleural distribution GGO Patchy morphology	1 1 1 1 1 1
Wei Lai (52)	2020	China	2	0	2	14	0	2	2	Unilateral Bilateral RUL LUL RLL Subpleural distribution GGO Halo sign Nodular morphology Patchy morphology Vascular dilatation	1 1 1 1 1 1 1 2 1 2 1 1
Y. Lu (53)	2020	China	9	4	5	7.8	4	5	9	Bilateral Right lung Left lung Subpleural distribution GGO Halo sign Patchy morphology Vascular thickening shadowing Interstitial abnormality Normal	5 5 5 4 4 1 4 1 1 4
Mengqi Liu (54)	2020	China	5	1	4	6	1	4	5	Unilateral Bilateral Right lung Left lung RUL RLL LLL Upper zones Lower zones Subpleural distribution Consolidation GGO Patchy morphology Normal	3 1 3 2 1 1 1 2 2 2 1 4 4 1

Table S1 (continued)

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Guqing He (55)	2020	China	1	0	1	11	0	1	1	Unilateral Left lung LLL Lower zones Subpleural distribution air bronchogram GGO Patchy morphology	1
Bo Li (56)	2020	China	22	10	12	8	2	20, 90% (70–98)	22	Unilateral Bilateral Right lung Left lung RUL RLL LUL LLL Upper zones Lower zones Subpleural distribution Peribronchovascular distribution Diffuse distribution Consolidation GGO Crazy paving Normal	2 15 11 9 2 9 3 6 5 15 10 1 9 7 3 2 2
Jilei Lin (57)	2020	China	1	1	0	7	1	0	1	Normal	1
Ji Young Park (58)	2020	Korea	1	1	0	10	0	1	1	Unilateral Right lung RLL Lower zones Subpleural distribution Consolidation GGO Nodular morphology Patchy morphology	1 1 1 1 1 1 1 1
Huanhuan Liu (59)	2020	China	4	2	2	3.7	1	3	4	Unilateral Bilateral Consolidation GGO Normal	1 1 2 1 1
Yuanzhe Li (60)	2020	China	2	1	1	4	0	2	2	Bilateral Right lung Left lung RUL RML RLL LUL LLL Peribronchovascular distribution GGO	2 1 1 1 1 1 1 1 1
Weiyong Liu (61)	2020	China	6	4	2	3	1	4	5	Bilateral GGO Patchy morphology Normal	4 4 4 1
Wei Li (62)	2020	China	5	1	4	3	2	3	5	Right lung Left lung RUL LLL Upper zones Lower zones GGO Patchy morphology Normal	1 2 1 2 1 1 3 3 2
Dasheng Li (63)	2020	China	1	0	1	0.83	0	2	2	Unilateral Bilateral Right lung Left lung RUL RML RLL LUL LLL Upper zones Middle zones Lower zones Diffuse distribution GGO Patchy morphology	1 1 1 1 1 1 1 1 1 1 1 1 1 1
Huan Wu (64)	2020	China	148	88	60	7	60	88, 59% (51–67)	148	Unilateral Bilateral GGO Normal	34 54 51 60
Hui Du (65)	2020	China	182	62	120	6	52	130, 71% (64–77)	182	Unilateral Bilateral Peribronchovascular distribution Consolidation GGO Patchy morphology Reticulation	57 73 2 3 51 50 7

Table S1 (continued)

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First author (reference No.)	Year	Country	Children sample size	Female number	Male Number	Average age (years)	Normal CT	Abnormal CT, N %, (95% CI)	Sample size (CT)	CT findings	Number of cases
Muhammet Furkan Korkmaz (66)	2020	Turkey	81	33	48	9.5	24	6, 20% (7–38)	30	Pleural effusion Bronchial dilatation Bronchial wall thickening Normal Consolidation GGO Normal Abnormal (findings not reported)	1 1 1 52 3 3 24 14 19
Lan Zhang (67)	2020	China	33	17	16	9.5	19	14, 42% (25–60)	33	Normal Unilateral Bilateral Upper zones Middle zones Lower zones Subpleural distribution GGO Patchy morphology Pleural effusion Vascular thickening shadowing Normal	19 34 9 22 9 28 41 29 25 1 10 7
Huijing Ma (68)	2020	China	50	22	28	NR	7	43, 86% (73–94)	50	Consolidation GGO Nodular morphology Cavity Pleural effusion Bronchial wall thickening Normal	11 7 1 2 5 1 2
Setareh Mamishi (69)	2020	Iran	24	13	11	6	2	22, 91% (73–98)	24	Consolidation GGO Nodular morphology Cavity Pleural effusion Bronchial wall thickening Normal	14 7 1 2 5 1 2
Pablo Caro-Dominguez (70)	2020	world-wide	91	42	49	13	2	22, 91% (73–98)	24	Consolidation GGO Crazy paving Nodular morphology Reticulation Mediastinal LAP Tree-in-bud Vascular thickening shadowing Normal	14 21 2 6 8 4 6 3 2
Shima Mahmoudi (71)	2020	Iran	35	13	22	7.5	3	32, 91% (76–98)	35	Unilateral Bilateral Consolidation GGO Pleural effusion Mediastinal LAP Normal	26 6 6 26 1 1 3
Figen Palabiyik (72)	2020	Turkey	59	25	34	9	3	50, 94% (84–90)	53	Unilateral Bilateral RUL RML RLL LUL LLL Subpleural distribution Diffuse distribution Consolidation GGO Halo sign Bronchial wall thickening Vascular thickening shadowing Interstitial abnormalities Normal	7 12 9 11 31 8 50 7 12 9 17 5 8 8 7 12 9 5 8 8 3
Zhiliang Hu (73)	2020	China	5	3	2	8.6	4	1	5	GGO Normal	1 4
Hui Yu (74)	2020	China	82	31	51	NR	2	80, 97% (91–99)	82	Unilateral Bilateral Consolidation GGO Patchy morphology Pleural effusion Normal	38 30 3 18 18 1 2
Che Zhang (75)	2020	China	34	20	14	2.75	6	28, 82% (65–93)	34	Unilateral Bilateral Patchy morphology Normal	14 14 28 6
Anjue Tang (76)	2020	China	26	17	9	6.9	8	18, 69% (48–85)	26	Unilateral Bilateral Normal	11 7 8
Xiaoxia Lu (77)	2020	China	171	67	104	6.7	60	111, 64% (57–72)	171	Bilateral GGO Patchy morphology Interstitial abnormalities Normal	21 56 32 2 60
Qin Wu (78)	2020	China	74	30	44	6	37	37, 50% (38–61)	74	Unilateral Bilateral Right lung Left lung Subpleural distribution GGO Patchy morphology Normal	21 16 13 8 9 9 9 37

Table S1 (continued)

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First author (reference No.)	Year	Country	Children sample size	Female number	Male Number	Average age (years)	Normal CT	Abnormal CT, N %, (95% CI)	Sample size (CT)	CT findings	Number of cases
Bin Zhang (79)	2020	China	46	17	29	8.75	26	20, 43% (28–58)	46	Unilateral Bilateral Consolidation GGO Patchy morphology Normal	15 4 5 17 1 26
Haiyan Qiu (80)	2020	China	36	13	23	8.3	17	19, 52% (35–69)	36	GGO Normal	19 17
Wenliang Song (81)	2020	China	16	6	10	8.5	5	11, 68% (41–88)	16	Unilateral Bilateral RUL RML RLL LUL LLL Upper zone Middle zone Lower zone Peribronchovascular distribution Consolidation Air bronchogram GGO Halo sign Nodular morphology Patchy morphology Mediastinal LAP Normal	10 1 4 1 1 4 2 3 6 1 7 2 5 6 1 1 5
Lan Lan (82)	2020	China	4	2	2	9.75	1	3	4	Unilateral Bilateral Right lung Left lung RLL LLL Lower zones Subpleural distribution Consolidation GGO Halo sign Normal	1 2 1 3 1 3 3 3 1 1 1
Dan Sun (83)	2020	China	74	36	38	5.8	34	40, 54% (42–65)	74	Unilateral Bilateral Consolidation GGO Interstitial abnormalities Unilateral Bilateral Consolidation GGO Normal	26 14 14 26 26 14 14 14 34
M. Oualha (84)	2020	China	27	17	10	6	2	14, 87% (61–98)	16	Abnormal (findings not reported) Normal	14 2
Muhammad Adel (85)	2021	Egypt	1	0	1	0.2	0	1	1	Bilateral Consolidation Pleural effusion	1 1 1
David M. Biko (86)	2021	USA	313	29	26	9	1		1	Normal	1
Francesca I. Calò-Carducci (87)	2020	Italy	1	0	1	14	1	0	1	Normal	1
Gaoyan Chen (88)	2020	China	8	3	5	7.43	1	7, 88% (64–100)	8	Bilateral GGO Patchy morphology	7 7 7
Juan Chen (89)	2020	China	12	6	6	14.5	2	10, 83% (62–100)	12	Bilateral GGO	10 10
Qiang Chen (90)	2020	China	11	4	7	10.61	5	6, 54% (25–83)	11	Normal GGO Patchy morphology	5 6 4
Karuna M. Das (91)	2021	UAE	187	92	95	14.8	30	26	56	Normal Bilateral GGO Consolidation Halo sign Nodules	30 26 6 1 11 1
Burcu Bursal Duramaz (92)	2020	Turkey	33	26	17	10.5	11	19, 63% (46–80)	30	Normal Unilateral Bilateral GGO Peripheral	11 12 16 19 19
Ahmed Elghoudi (93)	2020	UAE	288	140	148	7.3	0	14	14	Unilateral Bilateral GGO	8 6 14
Wang Fang (94)	2020	China	33	19	14	6	13	20, 60% (43–77)	33	Normal Unilateral Bilateral GGO	13 9 11 20
Farideh Gharekhanloo (95)	2020	Iran	1	1	0	15	0	1	1	Bilateral Consolidation Patchy morphology Pleural effusion Peripheral Nodules	1 1 1 1 1 1

Table S1 (continued)

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Eliana P. C (96)	2020	Brazil	34	13	21	13	2	10, 83% (62–100)	12	Normal Bilateral GGO Pleural effusion Peripheral	2 10 10 4 5
Ladan Goshayeshi (97)	2020	Iran	1	0	1	14	0	1	1	Bilateral GGO Peripheral Diffuse distribution	1 1 1 1
Yu Guo (98)	2020	China	80	28	52	6	24	56, 70% (59–80)	80	Normal Unilateral Bilateral GGO Consolidation	24 34 22 25 10
Mina Hizal (99)	2020	Turkey	40	22	18	10.5	16	18, 52% (36–69)	34	Normal	16
Hong Jiang (100)	2020	China	10	4	6	3.8	5	5, 50% (19–80)	10	Normal Unilateral Bilateral GGO	5 2 3 5
Kuanrong Li (101)	2020	China	72	NR	NR	2	7	14, 66% (46–86)	21	Normal Patchy morphology	7 5
Ying Li (102)	2020	China	57	22	35	1.6	32	25, 43.8% (30.1–56.7)	57	Normal GGO Consolidation	32 24 3
Xuehua Peng (103)	2021	China	201	83	118	6	82	119, 59% (52–65)	201	Normal Unilateral Bilateral GGO Consolidation Halo sign Patchy morphology Crazy-paving pattern Peripheral Pleural effusion Nodules Diffuse distribution	82 59 60 83 44 903 96 1 2 1 1
Fatemeh Zamani (104)	2021	Iran	12	5	5	9.7	1	11, 91% (76–100)	12	Normal GGO Consolidation Patchy morphology Peripheral Nodules Diffuse distribution	1 4 2 8 5 1 1
Nadia Nathan (105)	2020	France	23	10	13	4.9	0	4	4	GGO Peripheral	4 3
Leila Shahbaznejad (106)	2020	Iran	10	4	6	5.37	1	9, 90% (71–100)	10	Normal Bilateral GGO Halo sign Patchy morphology Pleural effusion Nodules	1 9 6 1 3 2 1
Hayrettin Temel (107)	2020	Turkey	81	41	40	9.3	77	4, 5% (0–68)	81	Normal Unilateral Bilateral GGO	77 3 1 4
Carlos F. Ugas-Charcape (108)	2020	Latin American	140	71	69	6.3	0	32	32	GGO Consolidation Halo sign Pleural effusion Peripheral Nodules	29 22 12 8 45 3
Lanqiong Zhou (109)	2021	China	7	5	2	3	6	1, 14% (0–40)	7	Normal Unilateral GGO	6 1 1
Xiaoli Li (110)	2020	China	14	6	8	6.33	5	4, 35% (39–89)	14	Normal Unilateral Bilateral GGO Consolidation Patchy morphology	5 3 6 3 1 4
Ruichao Niu (111)	2020	China	21	NR	NR	NR	0	21	21	GGO Consolidation Halo sign Nodules	8 2 7 4
Niccolò Parri (112)	2021	Italy	170	75	95	3.75	1	2, 66% (13–100)	3	Normal Bilateral GGO Pleural effusion	1 2 2 2
Rita Pina Prata (113)(63)	2021	Portugal	24	12	12	5.7	2	15, 88% (72–100)	17	Normal Bilateral GGO Consolidation Halo sign Patchy morphology Peribronchovascular Peripheral Nodules Diffuse distribution	2 15 14 12 3 14 3 6 1 2
Arnaldo Prata-Barbosa (114)	2020	Brazil	79	36	43	4	19	19, 50% (34–65)	38	Normal GGO Pleural effusion Diffuse distribution	19 19 3 21

RUL, right upper lobe; RML, right middle lobe; RLL, right lower lobe; LUL, left upper lobe; LLL, left lower lobe; GGO, ground glass opacity; LAP, lymphadenopathy.