

Table S1 Characteristics of 20 non-detectable lesions of ICLR

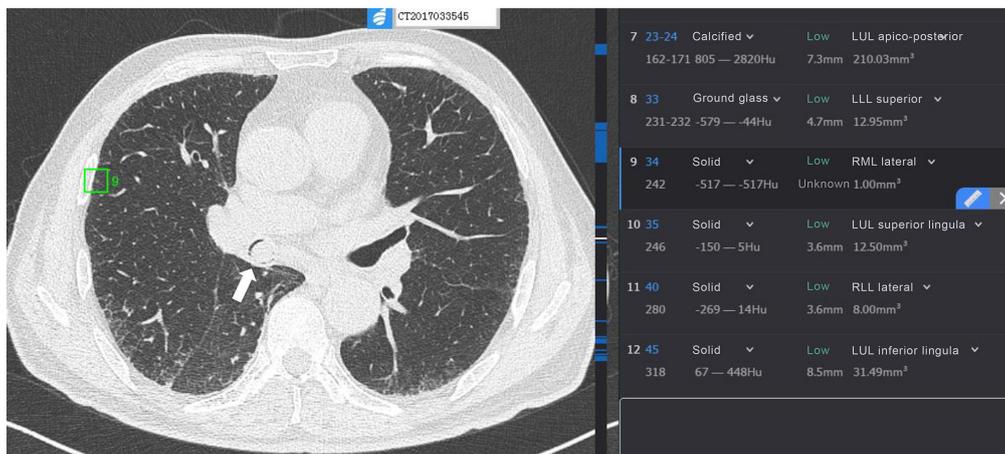
No.	CT scanner	Slice thickness	Location	Size (mm)	Consistency	Histological type	Reason of non-detectable
1	Siemens DF	1 mm	RUL	22	Solid	Squamous cell carcinoma	Endobronchial lesions with atelectasis
2	Siemens DF	1 mm	LUL	25	Solid	Bronchial mucoepidermoid carcinoma	Endobronchial lesions with atelectasis
3	Siemens DF	1 mm	RML & RLL	15	Solid	Squamous cell carcinoma	Endobronchial lesions
4	Siemens DF	1 mm	RUL	16	Solid	Squamous cell carcinoma	Endobronchial lesions
5	Siemens DF	1 mm	RLL	33	Solid	Neuroendocrine carcinoma	Endobronchial lesions
6	Siemens DF	1 mm	LUL	17	Solid	Squamous cell carcinoma	Endobronchial lesions
7	Siemens DF	1 mm	RUL	Unmeasurable	Solid	Metastases	Perihilar lesions with atelectasis
8	Siemens DF	1 mm	RML	Unmeasurable	Solid	Benign	Perihilar lesions with atelectasis
9	Siemens DF	1 mm	RML & RLL	114	Solid	Sarcomatoid carcinoma	Perihilar lesions with atelectasis
10	Siemens DF	1 mm	LUL	67	Solid	Adenocarcinoma	Attached to the mediastinum with atelectasis
11	uCT 760	1 mm	LUL	18	Solid	Adenocarcinoma	Attached to the mediastinum
12	Siemens DF	1 mm	LUL	51	Solid	Benign	Attached to the mediastinum
13	Siemens DF	1 mm	RLL	69	Solid	Benign	Attached to the pleural effusion
14	Siemens DF	1 mm	RLL	33	Solid	Benign	Attached to the pleural effusion
15	Siemens DF	1 mm	RML	9	Nonsolid	Adenocarcinoma	Attached to the inflammatory exudation
16	Siemens DF	1 mm	RLL	9	Nonsolid	Adenocarcinoma	Attached to the inflammatory exudation
17	Siemens DF	1 mm	LLL	59	Solid	Adenosquamous	Large mass attached to the costal pleura
18	Siemens DF	1 mm	RML	25	Solid	Adenocarcinoma	Patchy appearance
19	Siemens DF	1 mm	RUL	20	Solid	Benign	Patchy appearance
20	Siemens DF	2 mm	LUL	3	Nonsolid	Adenocarcinoma	3-mm nodule with faint margin

RUL, right upper lobe; RML, right middle lobe; RLL, right lower lobe; LUL, left upper lobe; LLL, left lower lobe; ICLR, InferRead CT Lung research.

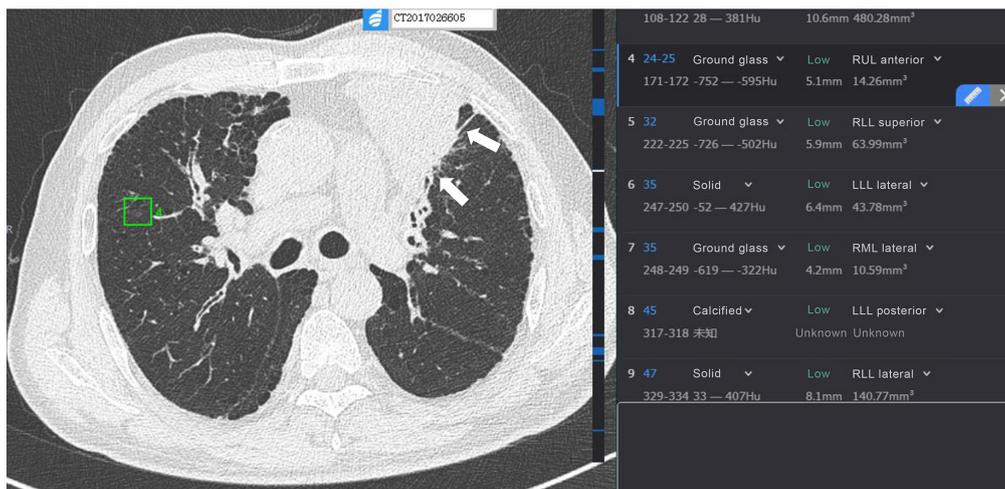
Table S2 Characteristics of 19 lesions with detection error of ICLR

No.	CT scanner	Slice thickness	Location	Size (mm)	Consistency	Histological type
1	Siemens S16	1 mm	RUL	75	Solid	Adenocarcinoma
2	Siemens DF	1 mm	RUL	29	Solid	Adenocarcinoma
3	Siemens DF	1 mm	RUL	35	Solid	Adenocarcinoma
4	Siemens S16	1 mm	RUL	38	Solid	Adenocarcinoma
5	Siemens DF	1 mm	RLL	53	Solid	Benign
6	Siemens DF	1 mm	RUL	98	Solid	Metastases
7	Siemens DF	1 mm	RLL	19	Solid	Adenocarcinoma
8	Siemens DF	1 mm	LLL	82	Solid	Adenocarcinoma
9	Siemens DF	2 mm	RLL	70	Solid	Adenocarcinoma
10	Siemens DF	1 mm	RUL	45	Solid	Adenocarcinoma
11	Siemens DF	1 mm	RUL	31	Solid	Small cell carcinoma
12	Siemens DF	1 mm	RLL	32	Solid	Metastases
13	Siemens DF	1 mm	RLL	48	Solid	Spindle cell carcinoma
14	Siemens DF	1 mm	RUL	51	Solid	Benign
15	Siemens DF	1 mm	RUL	32	Part-solid	Adenocarcinoma
16	Siemens DF	1 mm	LUL	39	Part-solid	Adenocarcinoma
17	Siemens DF	1 mm	RUL	26	Part-solid	Adenocarcinoma
18	Siemens DF	1 mm	RLL	21	Part-solid	Adenocarcinoma
19	Siemens DF	1 mm	LLL	76	Solid	Adenocarcinoma

RUL, right upper lobe; RML, right middle lobe; RLL, right lower lobe; LUL, left upper lobe; LLL, left lower lobe; ICLR, InferRead CT Lung research.

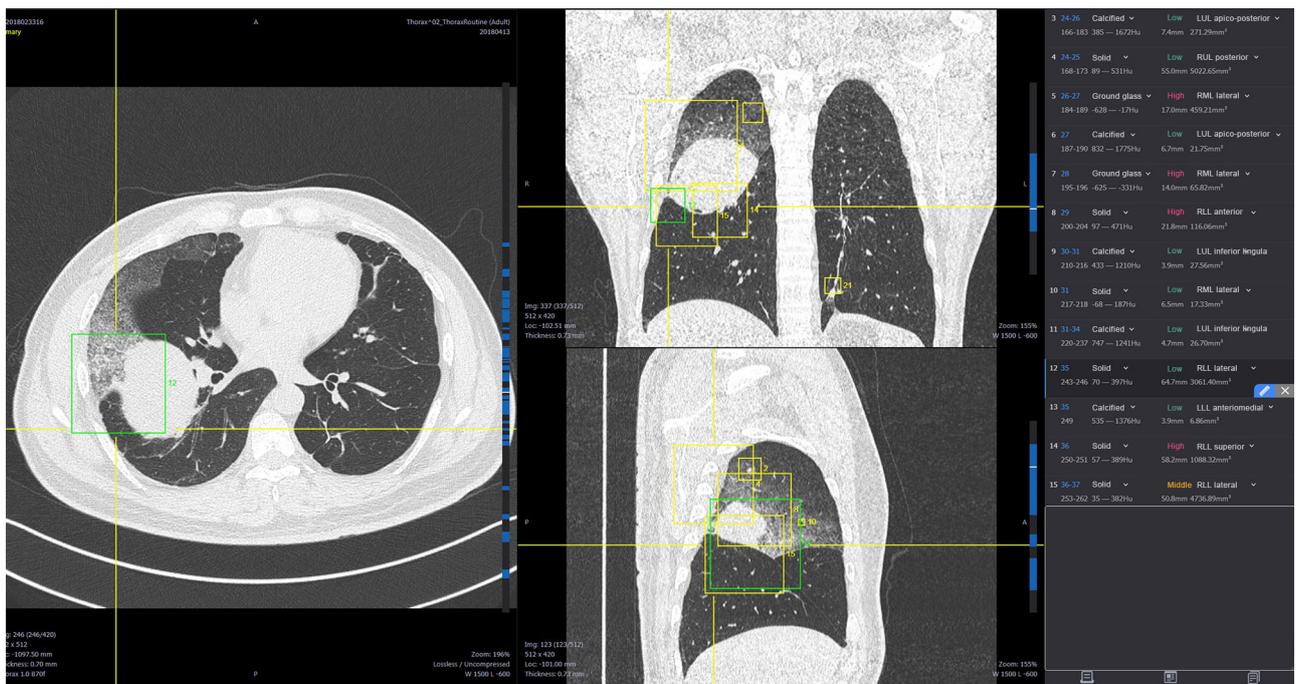


(a)

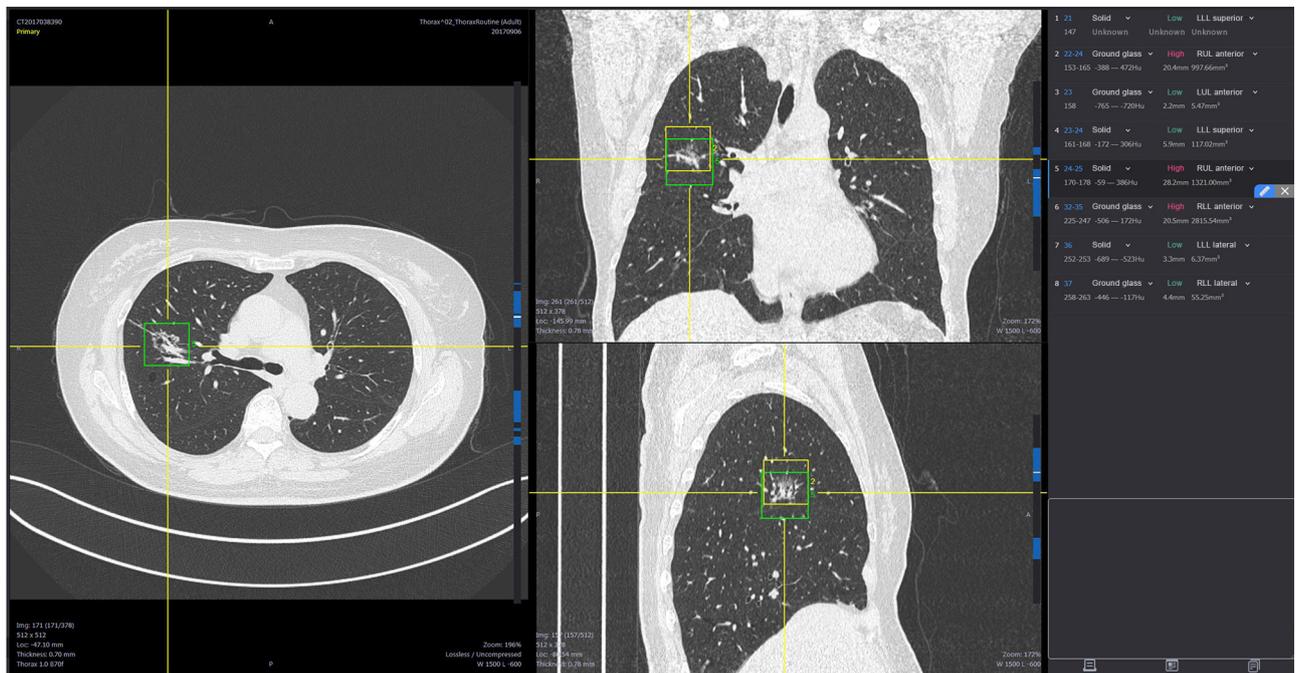


(b)

Figure S1 Non-detectable lesions of ICLR. The figure shows the working interface of ICLR. On the right is the list of nodules detected by AI. It displays the relevant information of the nodules, including serial number, image number, detected location, composition, range of Hounsfield, greatest diameter, volume, and malignant probability, risk level. On the left is the axial image of the currently selected nodule, which is within a green box. (A) A 15-mm solid nodule in the right middle bronchus was non-detected by ICLR (white arrow), which was pathologically confirmed as squamous cell carcinoma. At the same level, a 1-mm solid nodule in the right upper lobe was detected by ICLR (green box). (B) A 67-mm solid mass in the left upper lobe attached to the mediastinum was non-detected by ICLR (white arrow), which was pathologically confirmed as adenocarcinoma. At the same level, a 5-mm sub-solid nodule in the right upper lobe was detected by ICLR (green box). ICLR, InferRead CT Lung research.



(a)



(b)

Figure S2 Lesions with detection error of ICLR. This figure shows the three-dimensional display interface of ICLR. The nodule within the green box is the currently selected one, and the nodule within the yellow box is the currently visible one. (A) A 98-mm solid mass in the right upper lobe was detected as 8 nodules or masses by ICLR. (B) A 32-mm part-solid mass in the right upper lobe was detected as 2 nodules by ICLR. ICLR, InferRead CT Lung research.