

Figure S1 The typical images of HRCT assessment. HRCT, high-resolution computed tomography.

Table S1 Baseline characteristics of total cohort

Variable	Value
Total sample size	2,476
CTD-ILD	1,241 (50%)
Unclassifiable ILD	597 (24%)
HP	235 (9%)
Other ILD	403 (16%)
Age, years	60±14
Male sex	1,019 (41%)
Ever-smoker	1,388 (56%)
Smoking pack-years	18 [7–34]
FVC, %-predicted	75±20
DL _{co} , %-predicted	60±20
6MWD, meters	420±127
UCSD-SOBQ total score	38±28

Data are shown as number (%), mean \pm standard deviation, or median (interquartile range). 6MWD, 6-minute walk distance; CTD-ILD, connective tissue disease-associated ILD; DL_{co}, diffusing capacity of the lung for carbon monoxide; FVC, forced vital capacity; HP, hypersensitivity pneumonitis; ILD, interstitial lung disease; IPF, idiopathic pulmonary fibrosis; IQR, interquartile range; UCSD-SOBQ, University of California, San Diego Shortness of Breath Questionnaire.

 Table S2 Baseline characteristics of patients with and without 6-month follow-up

Variable	Patients with 6-month data available	Patients without 6-month data available	Р
Total patients	682	1,794	-
Age, years	58±13	60±14	0.001
Male sex	285 (42%)	734 (41%)	0.652
Ever-smoker	396 (58%)	992 (55%)	0.179
Smoking pack-years	15 [5–31]	19 [7–34]	-
FVC, %-predicted	72±19	77±21	<0.001
DL _{co} , %-predicted	57±19	61±21	<0.001
6MWD, meters	430±129	415±125	0.109
UCSD-SOBQ total score	38±26	37±27	0.346

Data are shown as number (%), mean ± standard deviation, or median [interquartile range]. 6MWD, 6-minute walk distance; DL_{co}, diffusing capacity of the lung for carbon monoxide; FVC, forced vital capacity; UCSD-SOBQ, University of California, San Diego Shortness of Breath Questionnaire.

Table S3 Baseline characteristics of	patients with and without 12-month follow-up
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Variable	Patients with 12-month data available	Patients without 12-month data available	Р
Total patients	1,125	1,351	-
Age, years	58±13	60±14	0.002
Male sex	460 (41%)	559 (41%)	1.000
Ever-smoker	640 (57%)	748 (55%)	0.318
Smoking pack-years	16 [6–31]	20 [7–35]	-
FVC, %-predicted	75±19	76±21	0.248
DL_{co} , %-predicted	60±20	60±21	0.720
6MWD, meters	434±122	402±131	<0.001
UCSD-SOBQ total score	36±25	39±28	0.018

Data are shown as number (%), mean ± standard deviation, or median [interquartile range]. 6MWD, 6-minute walk distance; DL_{co}, diffusing capacity of the lung for carbon monoxide; FVC, forced vital capacity; UCSD-SOBQ, University of California, San Diego Shortness of Breath Questionnaire.

Table S4 Baseline characteristics of patients with and without 24-month follow-up

Variable	Patients with 24-month data available	Patients without 24-month data available	Р
Total patients	1,305	1,171	-
Age, years	59±13	61±14	<0.001
Male sex	528 (40%)	491 (42%)	0.312
Ever-smoker	731 (56%)	657 (56%)	1.000
Smoking pack-years	16 [6–33]	20 [7–35]	-
FVC, %-predicted	75±20	76±21	0.579
DL_{co} , %-predicted	60±20	59±21	0.285
6MWD, meters	434±123	396±129	<0.001
UCSD-SOBQ total score	35±25	40±28	<0.001

Data are shown as number (%), mean ± standard deviation, or median [interquartile range]. 6MWD, 6-minute walk distance; DL_{co}, diffusing capacity of the lung for carbon monoxide; FVC, forced vital capacity; UCSD-SOBQ, University of California, San Diego Shortness of Breath Questionnaire.



Figure S2 Compare survival rate of CTD with non-CTD patients. CTD, connective tissue disease.