

eAppendix

Visual CT Variable	Single determination standard deviation
Total interstitial lung disease	11.3
Mosaicism	4.4
Emphysema	2.9
Cysts	3.8

eTable 1. Variation in interstitial and low attenuation pattern scores between the two scorers evaluated using the single determination standard deviation.

Visual CT Variable	Kappa Statistic
PPFE presence	0.56
Marked PPFE presence	0.52
Emphysema presence	0.44
Emphysema >5% presence	0.62
Suprasternal depression	0.57
Apical cap presence	0.59

eTable 2. Variation in categorical visual CT scores between the two scorers evaluated using the Kappa statistic. PPFE=pleuroparenchymal fibroelastosis.

Dependent variable	CT variable	Beta Coefficient	95% Confidence Interval	P value	Model R value
FEV1/FVC	ILD extent	0.09	0.03, 0.15	0.004	0.40
	Emphysema extent	-0.35	-0.55, -0.15	0.001	
	Marked PPFE	1.54	-1.82, 4.91	0.37	
FVC	ILD extent	-0.51	-0.66, -0.37	<0.0001	0.57
	Emphysema extent	0.31	-0.17, 0.78	0.20	
	Marked PPFE	-11.31	-19.24, -3.38	0.006	
DLco	ILD extent	-0.43	-0.53, -0.34	<0.0001	0.67
	Emphysema extent	-0.49	-0.80, -0.18	0.002	
	Marked PPFE	-7.18	-12.42, -1.94	0.008	

eTable 3. Relationships between pulmonary function tests (FEV1/FVC ratio, FVC and DLco) and ILD and emphysema extent (expressed as a percentage) and PPFE (marked versus none/trivial) in never-smoker patients with hypersensitivity pneumonitis. All models were adjusted for patient age and gender. FEV1=forced expiratory volume in one second, FVC=forced vital capacity, DLco=diffusing capacity for carbon monoxide, ILD=interstitial lung disease.

Low attenuation CT subtypes (%)	Smokers (n=86)	Never smokers (n=144)	P value
Mosaicism	5.0±7.9	6.2±7.1	0.24
Emphysema	2.9±5.6	1.8±7.3	0.20
Cysts	0.4±1.1	0.5±1.9	0.83
Emphysema alone*	6.9±6.9	7.6±13.6	0.79

eTable 4. Mean percentage extents of three low attenuation CT patterns in smokers and never-smokers with hypersensitivity pneumonitis. A subanalysis (*) was performed selectively in patients with emphysema. Group differences were evaluated with the T-test.

Dependent variable	No Emphysema (cohort size)	Emphysema (cohort size)	P value
FEV1/FVC	82.2 ± 7.7 (157)	76.2 ± 11.1 (63)	<0.003
FVC	67.6 ± 23.8 (157)	75.2 ± 24.8 (65)	0.04
DLco	41.8 ± 17.5 (148)	41.9 ± 17.4 (63)	0.95
VILD %()	48.8 ± 23.7 (163)	44.8 ± 24.9 (70)	0.26
VILDemph (%)	48.8 ± 23.7 (163)	52.0 ± 25.2 (70)	0.36

eTable 5. Differences in pulmonary function tests (% predicted FEV1/FVC ratio, FVC and DLco) and CT pattern extents (VILD=visual interstitial lung disease extent; VILDemph=sum of visual ILD and emphysema extents representing the combined morphological extent of disease on CT) in hypersensitivity pneumonitis patients with and without emphysema. FEV1=forced expiratory volume in one second, FVC=forced vital capacity, DLco=diffusing capacity for carbon monoxide.