Collapse phenomenon during Chartis collateral ventilation assessment: frequency and clinical significance

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ONLINE DATA SUPPLEMENT

Table E1. Distribution and quantification of total defect size in single fissures or whole lobes.

	Complete	Incomplete	Total*	% of Incomplete	Mean Defect Size (cm^2)[#]
Fissures					
URO	46	39	85	45.9%	22.5 ± 2.0
LRO	75	10	85	11.8%	9.9 ± 1.9
RH	21	64	85	75.3%	41.5 ± 2.7[†]
LO	65	20	85	23.5%	19.4 ± 2.6
Lobes					
RUL	16	69	85	81.2%	51.5 ± 3.2[‡]
RML	21	64	85	75.3%	43.3 ± 2.9[‡]
RLL	44	41	85	48.2%	24.3 ± 2.0
LUL	65	20	85	23.5%	20.1 ± 2.6
LLL	65	20	85	23.5%	20.1 ± 2.6

Data are presented as mean ± SEM. Statistical analysis between groups was performed by one-way ANOVA (Kruskal-Wallis). Abbreviations; URO: upper right oblique fissure, LRO: lower right oblique fissure, RH: right horizontal fissure, LO: left oblique fissure, RUL: right upper lobe, RML: right middle lobe, RLL: right lower lobe, LUL: left upper lobe, LLL: left lower lobe.

[*] Fissure analysis was not possible in 7 patients due to low quality or unavailability of CT scans.

[#] Fissures with no gaps were excluded when measuring mean defect size values

[†] $P < 0.001$ compared to all other fissures

[‡] $P < 0.001$ compared to all other lobes

Table E2. Patient baseline characteristics presented in total and according to ventilation mode during Chartis assessment.

	Total	Spontaneous Ventilation	Jet Ventilation
Demographics			
Patient no	92	55	37
Age (years)	66.9 ± 6.3	66.7 ± 5.7	67.1 ± 7.1
Sex (F/M)	34/58	19/36	15/22
Arterial Blood Gas			
PaO_2 (mmHg)	67.7 ± 14	67.3 ± 12.1	68.0 ± 16.6
$PaCO_2$ (mmHg)	40.9 ± 6.0	41.0 ± 6.6	40.6 ± 5.1
pH	7.43 ± 0.03	7.43 ± 0.03	7.43 ± 0.02
Lung Function			
FEV_1 (L)	0.87 ± 0.27	0.87 ± 0.28	0.89 ± 0.25
FEV_1 % predicted	32.8 ± 8.6	32.5 ± 9.4	33.5 ± 7.0
VCmax (L)	2.23 ± 0.72	2.25 ± 0.71	2.20 ± 0.75
VCmax % predicted	63.0 ± 14.3	63.7 ± 15.1	62.0 ± 13.1
FEV_1/FVC	43.4 ± 8.0	42.1 ± 8.3	45.7 ± 6.8
$DLCO$ (mL·min^{-1}·mmHg^{-1})	2.19 ± 0.90	2.09 ± 0.93	2.29 ± 0.86
$DLCO$ % predicted	25.9 ± 10.1	24.5 ± 10.4	27.5 ± 9.7
RV (L)	5.98 ± 1.45	5.70 ± 1.45[*]	6.29 ± 1.29
RV % predicted	253 ± 60	245 ± 56[*]	271 ± 50
TLC (L)	8.16 ± 1.63	7.90 ± 1.62[*]	8.64 ± 1.61
TLC % predicted	134 ± 23	129 ± 26[+]	142 ± 17
Exercise performance & QoL			
6MWT (m)	306 ± 101	317 ± 103	290 ± 98
SGRQ	61 ± 14	61 ± 13	62 ± 15
Chartis Outcome			
CV+	15	11	4
CV-	50	28	22
CP	21	11	10
Unclear	6	5	1

Data are presented as mean ± SD or *n*.

[*]: p = 0.05 vs mechanical ventilation

[+]: p = 0.001 vs mechanical ventilation

Abbreviations: FEV_1: forced expiratory volume in 1 s, FVC: forced vital capacity, DLCO: diffusing capacity of lung for carbon monoxide, RV: residual volume, TLC: total lung capacity, 6MWT: six minute walking test, SGRQ: Saint-George respiratory questionnaire.