

Natural Course of the Diffusing Capacity of the Lungs for Carbon Monoxide in COPD

Importance of Sex

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e-Table 1. Cox regression model estimating the effects of covariates on overall survival including the main variables linked to the longitudinal analysis of DLCO.

Characteristics	Coefficient	se	p-value	HR	CI _{95%}
Gender (Ref. female)	.799	.309	.010	2.222	(1.213; 4.073)
COPD (Ref. No COPD)	1.557	.604	.009	4.744	(1.451; 15.508)
DLco (%) Baseline (per %)	-.003	.004	.556	.997	(0.989; 1.006)
BODE index (Ref. 0)					
1	.339	.298	.257	1.403	(0.782; 2.518)
2	.390	.312	.211	1.477	(0.801; 2.723)
3	.747	.314	.017	2.110	(1.140; 3.906)
4	.758	.373	.042	2.134	(1.027; 4.434)
5 or more	1.042	.372	.005	2.834	(1.366; 5.882)

CI: Confidence interval; HR: Hazard ratio; se: standard error

e-Table 2. Baseline characteristics of the subjects included in the study stratified by presence of COPD and gender.

	COPD			Smoker without COPD		
	Male (n = 406)	Female (n = 100)	P value	Male (n = 58)	Female (n = 38)	P value
Age, yr	66 (8.4)	59 (9.2)	<0.001	57 (10.7)	52 (8.3)	0.012
Pack-years	62 (28)	48 (22)	<0.001	47 (26)	41 (21)	0.218
Smokers active*	130 (32%)	62 (62%)	<0.001	29 (50%)	32 (87%)	<0.001
Body mass index, kg/m ²	27.6 (4.7)	26.6 (6.1)	0.142	29.5 (4.7)	26.6 (4.6)	0.004
Haemoglobin, g/dL	14.9 (1.26)	14.0 (1.29)	< 0.001	15.8 (0.75)	14.2 (1.54)	0.027
Cooximetry, ppm**	5.0 (2-18)	6.0 (2-24)	0.022	6.5 (3-32.1)	21 (3.6-42)	0.005
DLco, mmol/ml/kPA	5.46 (1.96)	3.91 (1.54)	<0.001	9.51 (1.29)	5.56 (1.12)	<0.001
DLco, %	66.3 (24.2)	59.7 (20.5)	0.012	90.1 (20.0)	76.5 (15.1)	0.001
KCO, %	75.9 (25.7)	63.6 (20.0)	<0.001	97.8 (21.9)	84.0 (15.3)	0.002
FEV ₁ , L	1.66 (0.66)	1.42 (0.48)	<0.001	3.17 (0.78)	2.43 (0.42)	<0.001
FEV ₁ , %	55.9 (19.9)	64.8 (20.4)	<0.001	93.8 (13.9)	99.3 (13.1)	0.056
FVC, L	3.28 (0.90)	2.55 (0.61)	<0.001	4.19 (1.03)	3.12 (0.49)	<0.001
FVC, %	84.1 (20.2)	94.1 (22.9)	<0.001	96.9 (15.2)	105.0 (14.0)	0.010
FVC ₁ /FVC, %	50.2 (12.2)	55.0 (11.0)	<0.001	76.8 (5.5)	79.2 (6.4)	0.053
6MWD, m	474 (96)	459 (94)	0.154	534 (104)	535 (61)	0.966
Charlson Index**	0 (0-3)	0 (0-2)	0.126	0 (0-3.1)	0 (0-0)	0.156
Dyspnea (mMRC)**	1 (0-3)	1 (0-3)	0.736	0 (0-1.1)	0 (0-2)	0.986
PaO ₂ , mmHg	70.0 (10.1)	70.1 (13.3)	0.944	72.3 (11.7)	83.5 (13.3)	0.016
BODE index**	2 (0-4)	1 (0-4)	0.086	0 (0-1)	0 (0-1)	0.753
Hospitalization (at least one during the study period)*	112 (28%)	25 (25%)	0.706	7 (12%)	6 (16%)	0.559
Hospitalization per patient-year**	0 (0-0.87)	0 (0-0.67)	0.596	0 (0-0.24)	0 (0-0.66)	0.728
Respiratory mortality*	51 (13%)	3 (3%)	0.003	1 (2%)	-	0.989
Global mortality*	119 (29%)	11 (11%)	< 0.001	2 (3%)	1 (3%)	0.688

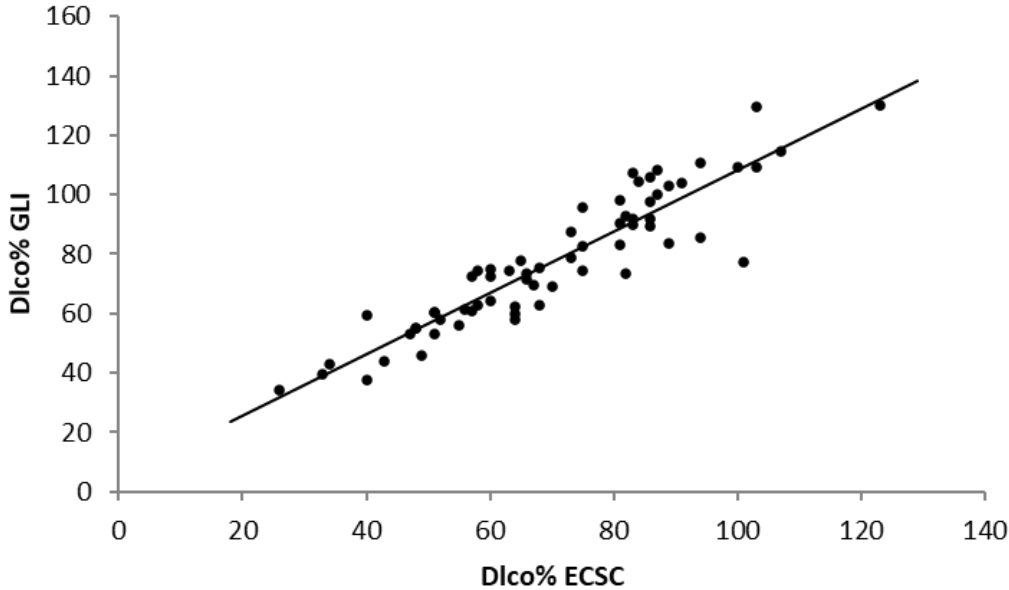
Data presented as mean (SD), except: *number (percentage), **Median (P₁₀-P₉₀).

e-Table 3. Baseline characteristics of the patients with COPD stratified by the decline in DLco with and without significant slope.

	COPD (n = 305)		P value
	DLco decliners with significant slope change (n = 50)	DLco patients without negative significant slope change (n = 255)	
Sex, (male)*	37 (74%)	220 (86%)	0.035
Age, yr	63 (9.8)	65 (8.6)	0.140
Pack-years	58 (26)	58 (27)	0.929
Smokers active*	19 (38%)	86 (34%)	0.626
Body mass index, kg/m ²	27.2 (4.8)	27.3 (4.7)	0.945
Haemoglobin	14.8 (1.08)	15.0 (1.27)	0.493
Cooximetry, ppm**	6.0 (3-22.2)	5.0 (2-19)	0.077
DLco, mmol/ml/kPA	5.77 (2.11)	5.24 (1.89)	0.172
DLco, %	66.0 (23.6)	66.4 (22.3)	0.916
KCO, %	71.1 (25.3)	76.1 (24.8)	0.224
FEV ₁ , L	1.47 (0.51)	1.73 (0.66)	0.002
FEV ₁ , %	52.8 (16.9)	59.9 (20.1)	0.021
FVC, L	3.17 (0.93)	3.30 (0.90)	0.364
FVC, %	87.4 (19.3)	87.2 (21.1)	0.947
FVC ₁ /FVC, %	47.3 (12.7)	52.2 (11.6)	0.014
6MWD, m	489 (85)	488 (82)	0.943
Charlson Index**	0 (0-1.9)	0 (0-3)	0.635
Dyspnea (mMRC)**	1 (0-2)	1 (0-2)	0.613
PaO ₂ , mmHg	70.8 (10.4)	70.8 (9.8)	0.999
BODE index**	2 (0-4)	1 (0-4)	0.105
Hospitalization (at least one during the study period)*	17 (34%)	73 (29%)	0.498
Hospitalization per patient-year**	0 (0-0.65)	0 (0.04)	0.447
Respiratory mortality*	3 (6%)	21 (8%)	0.777
Global mortality*	7 (14%)	40 (16%)	0.763

Data presented as mean (SD), except: *number (percentage), **Median (P₁₀₋₉₀).

e-Figure 1. Relation between DLco% predicted using the European Community for Steel and Coal (ECSC) as reference value and for DLco% predicted with the Global Lung Function Initiative (GLI). Correlation coefficient, $r= 0.92$.



e-Figure 2. Flow chart of the study population.

