



## Supplementary Material

**Table 1.** Clinical characteristics of subjects with BMI >25 kg/m<sup>2</sup> according to smoking status.

	NS (n = 45)	<i>p</i> NS vs FS	FS (n = 27)	<i>p</i> FS vs CS	CS (n = 27)	<i>p</i> NS vs CS	<i>p</i> NS vs FS vs CS
<b>Gender (male)</b>	19 (42%)	0.430	14 (52%)	0.590	12 (44%)	0.850	0.720
<b>Age (years)</b>	42 ± 13	<b>0.024</b>	49 ± 11	0.180	54 ± 15	<b>0.002</b>	<b>0.001</b>
<b>BMI (kg/m<sup>2</sup>)</b>	31 ± 6	0.270	31 ± 5	0.930	32 ± 6	0.230	0.720
<b>Family history</b>							
<i>n</i> (%)							
Asthma	10 (22%)	0.710	5 (19%)	0.130	10 (37%)	0.170	0.240
Atopy	8 (18%)	0.240	8 (30%)	0.340	5 (19%)	1.0	0.450
<b>Personal atopy</b>							
<i>n</i> (%)	18 (40%)	0.800	10 (37%)	0.230	6 (22%)	0.120	0.290
<b>Number of pack-year</b>	0	<b>&lt;0.001</b>	10.5 ± 7.5	0.750	11.6 ± 9	<b>&lt;0.001</b>	<b>&lt;0.001</b>
<b>Asthma onset <i>n</i> (%)</b>							
Childhood	18 (40%)	0.280	4 (15%)	0.170	9 (33%)	0.280	0.080
Adult	27 (60%)		23 (85%)		18 (67%)		
<b>Dyspnea</b>							
Presence <i>n</i> (%)	19 (42%)	<b>0.001</b>	22 (81%)	<b>0.021</b>	14 (52%)	0.430	<b>0.005</b>
Degree mMRC	1.3 ± 1.1	0.632	1.8 ± 0.9	0.764	1.6 ± 1.2	0.555	0.780
<b>Asthma Control</b>							
Controlled <i>n</i> (%)	33 (73%)	0.064	14 (52%)	0.410	11 (41%)	<b>0.006</b>	<b>0.018</b>
ACQ score	1.6 ± 1.3	0.235	1.2 ± 0.8	<b>0.016</b>	2 ± 1.2	0.380	0.053
<b>Exacerbations</b>							
<b>No</b>	36 (80%)	<b>0.012</b>	14 (52%)	1.0	14 (52%)	<b>0.012</b>	<b>0.014</b>
<b>1</b>	5 (11%)		9 (33%)		4 (15%)		
<b>≥2</b>	4 (9%)		4 (15%)		9 (33%)		
<b>Exacerbations number/year</b>	0.3 ± 0.8	<b>0.026</b>	0.6 ± 0.7	0.43	1.0 ± 1.3	<b>0.009</b>	<b>0.010</b>
<b>Comorbidities</b>							
Anxiety trait	5 (11%)	0.062	8 (30%)	0.340	5 (19%)	0.490	0.143
Depression trait	0	<b>0.006</b>	5 (19%)	0.190	1 (4%)	0.380	<b>0.005</b>
<b>Treatment GINA steps</b>	2 ± 1	0.620	3 ± 1	0.090	3 ± 1	<b>0.029</b>	0.067

NS : never-smokers ; FS : former-smokers ; CS : current-smokers ; BMI : body mass index ; mMRC : Modified Medical Research Council scale; ACQ : Asthma Control Questionnaire; GINA: Global Initiative for Asthma guidelines. Data was showed as mean ± standard deviation (SD). Bold characters for the *p* value <0.05

**Table 2.** Lung function parameters of subjects with BMI >25 kg/m<sup>2</sup> according to smoking status.

	NS (n = 45)	<i>p</i> NS vs FS	FS (n = 27)	<i>p</i> FS vs CS	CS (n = 27)	<i>p</i> NS vs CS	<i>p</i> NS vs FS vs CS
FVC (L)	4.0 ± 1.0	0.720	3.9 ± 1.1	0.093	3.4 ± 1.3	<b>0.026</b>	0.140
FVC (% predicted)	106 ± 19	0.170	99 ± 25	0.990	99 ± 24	0.270	0.300
FEV1 (L)	2.9 ± 0.9	0.130	2.6 ± 0.9	0.120	2.2 ± 1.1	<b>0.007</b>	<b>0.011</b>
FEV1 (% predicted)	92 ± 21	0.080	84 ± 20	0.420	77 ± 27	<b>0.022</b>	<b>0.026</b>

FEV1/FVC (%)	74 ± 10	<b>0.025</b>	68 ± 10	0.200	63 ± 13	<b>0.001</b>	<b>&lt;0.001</b>
TLC (L)	5.8 ± 1.8	0.710	5.6 ± 1.6	0.660	5.5 ± 1.9	0.420	0.780
TLC (% predicted)	103 ± 22	0.410	98 ± 21	0.650	102 ± 23	0.930	0.710
RV (% predicted)	110 ± 45	0.510	112 ± 30	0.440	123 ± 37	0.150	0.410
DLCO (%)	96 ± 16	<b>0.010</b>	86 ± 11	<b>0.046</b>	92 ± 13	0.570	<b>0.019</b>
KCO (%)	103 ± 16	0.550	101 ± 16	0.720	100 ± 14	0.360	0.640

NS : never-smokers ; FS : former-smokers ; CS : current-smokers ; FVC : forced vital capacity ; L : liter ; FEV1 : forced expiratory volume in one seconde ; FEV1/FVC : ratio of forced expiratory volume in one seconde and forced vital capacity ; TLC : total lung capacity ; RV : residual volume ; DLCO : diffusion lung capacity for carbon monoxide ; KCO : ratio of DLCO and alveolar volume. Data was showed as mean ± standard deviation (SD). Bold characters for the *p* value <0.05

**Table 3.** Clinical characteristics of subjects with normal weight according to smoking status.

	NS ( <i>n</i> = 45)	<i>p</i> NS vs FS	FS ( <i>n</i> = 11)	<i>p</i> FS vs CS	CS ( <i>n</i> = 21)	<i>p</i> NS vs CS	<i>p</i> NS vs FS vs CS
<b>Gender (male)</b>	9 (23%)	<b>0.024</b>	7 (64%)	0.710	11 (52%)	<b>0.022</b>	<b>0.014</b>
<b>Age (years)</b>	45 ± 14	0.180	40 ± 10	0.570	37 ± 14	<b>0.039</b>	0.084
<b>BMI (kg/m<sup>2</sup>)</b>	22 ± 2	0.940	23 ± 1	0.350	22 ± 26	0.430	0.560
<b>Family history</b>							
<i>n</i> (%)							
Asthma	6 (15%)	<b>0.014</b>	6 (55%)	0.530	9 (43%)	<b>0.019</b>	<b>0.012</b>
Atopy	7 (18%)	<b>0.023</b>	6 (55%)	0.910	11 (52%)	<b>0.006</b>	<b>0.008</b>
<b>Personal atopy <i>n</i> (%)</b>	20 (51%)	<b>0.033</b>	10 (91%)	<b>0.049</b>	11 (52%)	0.940	0.053
<b>Number of pack-year</b>	0	<b>&lt;0.001</b>	9.5 ± 6.9	0.340	11.9 ± 6.8	<b>&lt;0.001</b>	<b>&lt;0.001</b>
<b>Asthma onset <i>n</i> (%)</b>							
Childhood	17 (44%)	0.740	4 (36%)	0.260	12 (57%)	0.320	0.460
Adult	22 (56%)		7 (64%)		9 (43%)		
<b>Dyspnea</b>							
Presence <i>n</i> (%)	13 (33%)	0.490	5 (45%)	0.720	8 (38%)	0.710	0.750
Degree mMRC	0.8 ± 0.9	1	0.8 ± 0.9	1	0.8 ± 0.9	1	1
<b>Asthma Control</b>							
Controlled <i>n</i> (%)	29 (74%)	0.480	7 (64%)	0.260	9 (43%)	<b>0.016</b>	0.054
ACQ score	0.7 ± 0.8	0.211	1.3 ± 1.5	0.392	1.8 ± 1	<b>0.003</b>	<b>0.018</b>
<b>Exacerbations</b>							
<b>No</b>	30 (77%)	0.700	9 (82%)	<b>0.009</b>	7 (33%)	<b>&lt;0.001</b>	<b>&lt;0.001</b>
<b>1</b>	4 (10%)		0	0	0		
<b>≥2</b>	5 (13%)		2 (18%)	14 (67%)			
<b>Exacerbations number/year</b>	0.4 ± 0.8	0.820	0.4 ± 0.8	<b>0.006</b>	1.7 ± 1.3	<b>&lt;0.001</b>	<b>&lt;0.001</b>
<b>Comorbidities</b>							
Anxiety trait	4 (10%)	1.0	1 (9%)	0.370	6 (29%)	0.140	0.180
Depression trait	3 (8%)	1.0	0	0.530	2 (10%)	1.0	0.840
<b>Treatment GINA steps</b>	2.2 ± 1	0.840	2.2 ± 1	0.590	2.4 ± 1	0.530	0.800

NS : never-smokers ; FS : former-smokers ; CS : current-smokers ; BMI : body mass index ; mMRC : Modified Medical Research Council scale ; ACQ : Asthma Control Questionnaire ; GINA : Global Initiative for Asthma guidelines. Data was showed as mean ± standard deviation (SD). Bold characters for the *p* value <0.05

**Table 4.** Lung function parameters of subjects with normal weight according to smoking status.

	NS (n = 45)	p NS vs FS	FS (n = 11)	p FS vs CS	CS (n = 21)	p NS vs CS	p NS vs FS vs CS
FVC (L)	3.9 ± 1.1	0.380	4.2 ± 0.8	0.810	4.1 ± 1.2	0.260	0.710
FVC (% predicted)	111 ± 19	0.052	102 ± 10	0.800	101 ± 20	<b>0.046</b>	0.073
FEV1 (L)	2.8 ± 1.0	0.900	2.8 ± 0.6	0.380	2.9 ± 1.1	0.390	0.950
FEV1 (% predicted)	95 ± 21	<b>0.017</b>	81 ± 13	0.440	83 ± 22	<b>0.045</b>	<b>0.040</b>
FEV1/FVC (%)	72 ± 10	0.170	67 ± 10	0.580	69 ± 11	0.400	0.430
TLC (L)	5.3 ± 1.9	0.380	5.7 ± 1.4	1.0	5.7 ± 1.1	0.110	0.540
TLC (% predicted)	104 ± 28	0.680	106 ± 9	0.710	108 ± 17	0.830	0.820
RV (% predicted)	127 ± 36	0.540	118 ± 22	0.130	108 ± 18	<b>0.013</b>	0.088
DLCO (%)	93 ± 15	0.110	86 ± 9	0.890	89 ± 15	0.150	0.240
KCO (%)	97 ± 14	0.840	99 ± 19	0.490	97 ± 10	0.540	0.910

NS : never-smokers ; FS : former-smokers ; CS : current-smokers ; FVC : forced vital capacity ; L : litter ; FEV1 : forced expiratory volume in one seconde ; FEV1/FVC : ratio of forced expiratory volume in one seconde and forced vital capacity ; TLC : total lung capacity ; RV : residual volume ; DLCO : diffusion lung capacity for carbon monoxide ; KCO : ratio of DLCO and alveolar volume. Data was showed as mean ± standard deviation (SD). Bold characters for the p-value <0.05