

Supplementary Table S1. Unweighted clinical characteristics of study subjects according to airflow limitation severity.

| | Mild (n = 125) | Moderate (n = 163) | Severe (n = 23) | P-value |
|--|---------------------------|---------------------------|--------------------------|---------|
| Sex | | | | 0.055 |
| Men, n (%) | 71 (56.8) | 103 (63.2) | 18 (78.3) | |
| Women, n (%) | 54 (43.2) | 60 (36.8) | 5 (21.7) | |
| Age groups | | | | 0.051 |
| 40-49, n (%) | 45 (36.0) | 28 (17.2) | 1 (4.3) | |
| 50-59, n (%) | 31 (24.8) | 33 (20.2) | 3 (13.0) | |
| 60-69, n (%) | 28 (22.4) | 52 (31.9) | 5 (21.7) | |
| ≤70, n (%) | 21 (16.8) | 50 (30.7) | 14 (60.9) | |
| Height (m), mean (SD) | 1.64 (0.1) | 1.63 (0.1) | 1.65 (0.1) | 0.356 |
| BMI (kg/m²), mean (SD) | 23.6 (2.6) | 23.3 (3.4) | 23.6 (4.0) | 0.594 |
| Residence | | | | 0.048 |
| Rural, n (%) | 24 (19.2) | 48 (29.4) | 9 (39.1) | |
| Urban, n (%) | 101 (80.8) | 115 (70.6) | 14 (60.9) | |
| Smoking status | | | | 0.055 |
| Never, n (%) | 61 (49.2) | 58 (35.8) | 6 (26.1) | |
| Former, n (%) | 35 (28.2) | 55 (34.0) | 9 (39.1) | |
| Current, n (%) | 28 (22.6) | 49 (30.2) | 8 (34.8) | |
| Smoking Pack-years §, mean (SD) | 26.1 (16.5) | 31.3 (25.8) | 38.4 (18.8) | 0.103 |
| Education | | | | 0.459 |
| Middle school or less, n (%) | 48 (39.7) | 69 (44.2) | 14 (60.9) | |
| High school, n (%) | 39 (32.2) | 48 (30.8) | 5 (21.7) | |
| College or more, n (%) | 34 (28.1) | 39 (25.0) | 4 (17.4) | |
| Household income | | | | 0.001† |
| Lowest, n (%) | 28 (20.8) | 50 (30.9) | 14 (60.9) | |
| Lower middle, n (%) | 24 (19.2) | 44 (27.2) | 5 (21.7) | |
| Higher middle, n (%) | 29 (23.2) | 27 (16.7) | 1 (4.3) | |
| Highest, n (%) | 46 (36.8) | 41 (25.3) | 3 (13.0) | |
| Hs-CRP (mg/L) | | | | |
| mean (SD) | 0.93 (1.9) | 1.67 (3.0) | 1.67 (1.5) | 0.044 |
| median (IQR) | 0.50 (0.30-0.76) | 0.80 (0.42-1.68) | 1.35 (0.63-2.11) | |
| Total calorie intake (kcal/day) | | | | 0.772 |
| mean (SD) | 1949.3 (828.5) | 1991.7 (750.3) | 1854.6 (1002.8) | |
| median (IQR) | 1725.5 (1342.8-2393.9) | 1929.8 (1435.9-2663.2) | 1288.4 (829.6-2021.9) | |
| Serum Folate level (ng/mL) | | | | 0.199 |
| mean (SD) | 7.25 (3.3) | 6.71 (3.4) | 5.27 (3.1) | |
| median (IQR) | 6.30 (4.55-9.40) | 6.00 (4.40-9.20) | 3.70 (3.15-4.68) | |

The degree of airflow limitation was defined based on the Global Initiative for Chronic Obstructive Lung Disease (GOLD) report: mild (predicted FEV₁% ≥80), moderate (80> predicted FEV₁% ≥50), and severe (50> predicted FEV₁%).

P-value <0.017 was considered significantly different between: *mild vs. moderate, †mild vs. severe, ‡moderate vs. severe.

§Smoking pack-years were calculated only among former and current smokers.

Hs-CRP, high sensitivity C-reactive protein; BMI, body mass index; FEV₁, forced expiratory volume in 1 second; SD, standard deviation; IQR, interquartile range.

Supplementary Table S2. Correlation between age, serum folate level, hs-CRP, and lung function parameters in male COPD using Pearson's correlation analysis.

| | Age (years) | Serum folate (ng/mL) | Hs-CRP (mg/L) | Predicted FEV ₁ % | Trough FEV ₁ (L) | Predicted FVC% | Trough FVC (L) | PEF (L/sec) |
|---------------------------------|--------------------|----------------------------|-------------------|---------------------------------|--------------------------------|--------------------|--------------------|--------------------|
| Age (years) | 1 | 0.124 (0.277) | 0.097 (0.188) | -0.400 (<0.001) | -0.751 (<0.001) | -0.448 (<0.001) | -0.632 (<0.001) | -0.598 (<0.001) |
| Serum folate (ng/mL) | 0.124 (0.277) | 1 | 0.092 (0.420) | 0.205 (0.070) | 0.163 (0.152) | 0.211 (0.062) | 0.229 (0.042) | 0.215 (0.057) |
| Hs-CRP (mg/L) | 0.097 (0.188) | 0.092 (0.420) | 1 | -0.225 (0.002) | -0.188 (0.010) | -0.157 (0.031) | -0.143 (0.050) | -0.219 (0.003) |
| Predicted FEV ₁ % | -0.400 (<0.001) | 0.205 (0.070) | -0.225 (0.002) | 1 | 0.836 (<0.001) | 0.856 (<0.001) | 0.741 (<0.001) | 0.755 (<0.001) |
| Trough FEV ₁ (L) | -0.751 (<0.001) | 0.163 (0.152) | -0.188 (0.010) | 0.836 (<0.001) | 1 | 0.800 (<0.001) | 0.923 (<0.001) | 0.842 (<0.001) |
| Predicted FVC% | -0.448 (<0.001) | 0.211 (0.062) | -0.157 (0.031) | 0.856 (<0.001) | 0.800 (<0.001) | 1 | 0.882 (<0.001) | 0.664 (<0.001) |
| Trough FVC (L) | -0.632 (<0.001) | 0.229 (0.042) | -0.143 (0.050) | 0.741 (<0.001) | 0.923 (<0.001) | 0.882 (<0.001) | 1 | 0.743 (<0.001) |
| PEF (L/sec) | -0.598 (<0.001) | 0.215 (0.057) | -0.219 (0.003) | 0.755 (<0.001) | 0.842 (<0.001) | 0.664 (<0.001) | 0.743 (<0.001) | 1 |

COPD, chronic obstructive lung disease; hs-CRP, high sensitivity C-reactive protein; FEV₁, forced expiratory volume in 1 second, FVC, forced vital capacity; PEF, peak expiratory flow.

Supplementary Table S3. Correlation between age, serum folate level, hs-CRP, and lung function parameters in female COPD using Pearson's correlation analysis.

| | Age (years) | Serum folate (ng/mL) | Hs-CRP (mg/L) | Predicted FEV ₁ % | Trough FEV ₁ (L) | Predicted FVC% | Trough FVC (L) | PEF (L/sec) |
|---------------------------------|--------------------|----------------------------|-------------------|---------------------------------|--------------------------------|-------------------|--------------------|--------------------|
| Age (years) | 1 | 0.137 (0.322) | 0.189 (0.043) | -0.186 (0.042) | -0.693 (<0.001) | -0.275 (0.002) | -0.662 (<0.001) | -0.607 (<0.001) |
| Serum folate (ng/mL) | 0.137 (0.322) | 1 | 0.156 (0.259) | 0.033 (0.812) | -0.098 (0.479) | -0.021 (0.882) | -0.115 (0.408) | -0.042 (0.765) |
| Hs-CRP (mg/L) | 0.189 (0.043) | 0.156 (0.259) | 1 | -0.026 (0.785) | -0.130 (0.165) | -0.032 (0.733) | -0.105 (0.263) | -0.187 (0.045) |
| Predicted FEV ₁ % | -0.186 (0.042) | 0.033 (0.812) | -0.026 (0.785) | 1 | 0.752 (<0.001) | 0.918 (<0.001) | 0.701 (<0.001) | 0.588 (<0.001) |
| Trough FEV ₁ (L) | -0.693 (<0.001) | -0.098 (0.479) | -0.130 (0.165) | 0.752 (<0.001) | 1 | 0.754 (<0.001) | 0.965 (<0.001) | 0.823 (<0.001) |
| Predicted FVC% | -0.275 (0.002) | -0.021 (0.882) | -0.032 (0.733) | 0.918 (<0.001) | 0.754 (<0.001) | 1 | 0.795 (<0.001) | 0.554 (<0.001) |
| Trough FVC (L) | -0.662 (<0.001) | -0.115 (0.408) | -0.105 (0.263) | 0.701 (<0.001) | 0.965 (<0.001) | 0.795 (<0.001) | 1 | 0.769 (<0.001) |
| PEF (L/sec) | -0.607 (<0.001) | -0.042 (0.765) | -0.187 (0.045) | 0.588 (<0.001) | 0.823 (<0.001) | 0.554 (<0.001) | 0.769 (<0.001) | 1 |

COPD, chronic obstructive lung disease; hs-CRP, high sensitivity C-reactive protein; FEV₁, forced expiratory volume in 1 second, FVC, forced vital capacity; PEF, peak expiratory flow.