

Bronchitis and COPD

0054

COPD course and comorbidities – are there gender differences?

*Marcin Grabicki¹, Barbara Kuznar-Kaminska¹, Renata Rubinsztajn², Beata Brajer-Luftmann¹,
Monika Kosacka³, Ryszarda Chazan², Halina Batura-Gabryel¹, A. Nowicka¹, M. Kostrzewska¹,
T. Piorunek¹*

*¹Poznan University of Medical Sciences, Department of Pulmonology, Allergology and Respiratory
Oncology, Poznan, Poland*

*²Medical University of Warsaw, Department of Internal Medicine, Pneumology and Allergology,
Warszawa, Poland*

³Wroclaw Medical University, Department of Pulmonology and Lung Cancer, Wroclaw, Poland

Background and objective: The prevalence of chronic obstructive pulmonary disease (COPD) has increased more rapidly in women than in men during the past two decades. Clinical presentation, comorbidities and prognosis may differ between genders and may influence management decisions. The influence of gender on COPD expression has not been clearly explained to date.

The aim of this study was to evaluate significant differences between women and men suffering from COPD regarding clinical presentation, pulmonary function test results, comorbidities and prognosis.

Methods: We prospectively recruited 470 patients with stable COPD with a history of smoking (152 women, 318 men, mean age 65.5±8.8 vs. 66.6±9.4 years, respectively). Comorbidities and exacerbations were recorded. Spirometry, body plethysmography, carbon monoxide diffusing capacity and 6-minute walk tests were performed. The BODE prognostic score was also calculated.

Results: Women smoked less in comparison to men (30.4 vs. 41.9 pack-years, $P<0.05$), showed more exacerbations (2.5 vs. 1.7, $P=0.01$), higher FEV1 % predicted (forced expiratory volume in 1 s) and increased RV/TLC (residual volume/total lung capacity) but the same intensity of dyspnea. Women showed fewer comorbidities on average per patient (5.4 vs. 6.4, $P=0.002$) but a higher prevalence of at least 7 comorbidities per patient (48.7 vs. 33.0%, $P<0.05$). Females also had significantly worse prognoses (4.6 vs. 3.1 BODE score, $P<0.05$) correlated with the number of comorbidities ($r=0.33$, $P<0.01$).

Conclusion: The results of this study strongly support the existence of different gender phenotypes in COPD, especially regarding exacerbations, comorbidities and prognosis. This gender difference may indicate a need for individual assessment and management of COPD in women and men.