

Online Supplement

Association Between Chronic Obstructive Pulmonary Disease and Mortality in Participants with Arthritis: Data from the National Health and Nutrition Examination Survey 1999–2018

Yingying Zhang, MM¹ Guangxi Chen² Aixia Huang, MM² Ying Hu² Chengfeng Fu, MM^{2,3}

¹Department of Laboratory Medicine, Affiliated Wuxi Fifth Hospital of Jiangnan University, Wuxi, China

²Respiratory and Critical Care Medicine, the Second People's Hospital of Banan District, Chongqing, China

³Department of Respiratory Medicine, the Second Affiliated Hospital, Chongqing Medical University, Chongqing, China

Address correspondence to:

Chengfeng Fu, MM

Phone: +86 15086717989

Email: chengfengfu@stu.cqmu.edu.cn

Table S1. Association between COPD^a and CLRD^b and non-CLRD mortality of participants with arthritis.

Variable	Model 1 ^c		Model 2 ^d		Model 3 ^e		Model 4 ^f	
	HR (95% CI)	<i>p</i> value	HR (95% CI)	<i>p</i> value	HR (95% CI)	<i>p</i> value	HR (95% CI)	<i>p</i> value
CLRD mortality								
Without COPD	1(Reference)		1(Reference)		1(Reference)		1(Reference)	
With COPD	7.65 (5.11-11.45)	<0.001	7.05 (4.78-10.42)	<0.001	5.53(3.54-8.63)	<0.001	5.46 (3.48-8.56)	<0.001
Non-CLRD mortality								
Without COPD	1(Reference)		1(Reference)		1(Reference)		1(Reference)	
With COPD	1.45 (1.26-1.68)	<0.001	1.41 (1.24-1.61)	<0.001	1.27(1.11-1.47)	<0.001	1.24 (1.07-1.44)	0.004

^aCOPD, chronic obstructive pulmonary disease.

^bCLRD, chronic lower respiratory disease.

^cCrude model.

^dAdjusted for age, sex, race/ethnicity, marital status, ratio of income to poverty, education level.

^eAdjusted for model 2 + body mass index, physical activity, smoking and drinking status.

^fAdjusted for model 3 + hypertension, diabetes.

Table S2. Association between COPD^a and all-cause and CVD^b mortality of participants with arthritis after excluding individuals who died within two years of follow-up in NHANES 1999-2018.

Variable	Model 1 ^c		Model 2 ^d		Model 3 ^e		Model 4 ^f	
	HR (95% CI)	<i>p</i> value	HR (95% CI)	<i>p</i> value	HR (95% CI)	<i>p</i> value	HR (95% CI)	<i>p</i> value
All-cause mortality								
Without COPD	1(Reference)		1(Reference)		1(Reference)		1(Reference)	
With COPD	1.51 (1.31-1.75)	<0.001	1.49 (1.31-1.71)	<0.001	1.33 (1.16-1.54)	<0.001	1.31 (1.13-1.52)	<0.001
CVD mortality								
Without COPD	1(Reference)		1(Reference)		1(Reference)		1(Reference)	
With COPD	1.50 (1.22-1.85)	<0.001	1.50 (1.22-1.84)	<0.001	1.37 (1.12-1.68)	0.002	1.35 (1.09-1.67)	0.006

^aCOPD, chronic obstructive pulmonary disease.

^bCVD, cardiovascular disease.

^cCrude model.

^dAdjusted for age, sex, race/ethnicity, marital status, ratio of income to poverty, education level.

^eAdjusted for model 2 + body mass index, physical activity, smoking and drinking status.

^fAdjusted for model 3 + hypertension, diabetes.

Figure S1. The adjusted basic results after multiple imputation, highlighting the relationship between COPD and all-cause, CVD mortality of participants with arthritis, with hazard ratios and 95% confidence intervals.

