

Allergic disease worsens respiratory symptoms and exacerbations in COPD

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Patients with chronic obstructive pulmonary disease (COPD) who also have allergic disease have higher levels of respiratory symptoms and are at higher risk for COPD exacerbations, according to a new study from researchers at Johns Hopkins University in Baltimore.

"Although allergic [sensitization](#) and [allergen](#) exposure are known to be associated with impairments in [lung function](#), the effects of allergic disease on respiratory symptoms in COPD patients has only recently been studied," said researcher Nadia N. Hansel, MD, MPH, associate professor of medicine at the Johns Hopkins Asthma & Allergy Center. "Accordingly, we examined the effects of allergic disease on respiratory health in two sets of patients with COPD, one a nationally representative sample of 1,381 COPD patients from the National Health and Nutrition Survey III (NHANES III) and the other a cohort of 77 former smokers with COPD from a study of the effects of endotoxin exposure on health status."

"We found that COPD patients with an allergic phenotype had an increased risk of lower respiratory symptoms and respiratory exacerbations."

The findings were published online ahead of print publication in the American Thoracic Society's *American Journal of Respiratory and Critical Care Medicine*.

In the NHANES III cohort, 296 COPD patients had an allergic

phenotype, which was defined as self-reported doctor-diagnosed hay fever or allergic upper respiratory symptoms. These patients were significantly more likely to wheeze, have chronic cough, and have chronic phlegm and had a significantly increased risk of experiencing a COPD exacerbation that required an acute visit to the doctor.

In the second cohort of 77 COPD patients, the 23 patients with allergic sensitization (determined by immunoglobulin E testing) were significantly more likely to wheeze, to experience nighttime awakening due to cough, and to have COPD exacerbations requiring antibiotic treatment or an acute visit to the doctor.

"Our findings in two independent populations that allergic disease is associated with greater severity of COPD suggest that treatment of active allergic disease or avoidance of allergy triggers may help improve respiratory symptoms in these patients, although causality could not be determined in our cross-sectional study," said Dr. Hansel.

There were a few limitations to the study, including possible misclassification of COPD in some NHANES patients and the use of self-reported [respiratory symptoms](#) and COPD [exacerbations](#).

"Current COPD guidelines do not address the management of allergic disease in COPD patients," Dr. Hansel said. "Additional studies of the relationship between allergic disease and COPD are clearly needed."

Provided by American Thoracic Society

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