Increased risk of exacerbation and hospitalization in subjects with an overlap phenotype : COPD-Asthma

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Abstract:

Background: Several COPD phenotypes have been described; the COPD-asthma overlap is one of the most recognized. The aim of this study was to evaluate the prevalence of three subgroups (asthma, COPD, and COPD-asthma overlap) in the Latin American Project for the Investigation of Obstructive Lung Disease (PLATINO) study population, to describe their main characteristics, and to determine the association of the COPD-asthma overlap group with exacerbations, hospitalizations, limitations due to physical health, and perception of general health status (GHS).

Methods: The PLATINO study is a multicenter population-based survey carried out in five Latin American cities. Outcomes were self-reported exacerbations (defined by deterioration of breathing symptoms that affected usual daily activities or caused missed work), hospitalizations due to exacerbations, physical health limitations, and patients' perception of their GHS obtained by questionnaire. Subjects were classified in three specific groups: COPD--a postbronchodilator (post-BD) FEV $_1$ /FVC ratio of < 0.70; asthma--presence of wheezing in the last year and a minimum post-BD increase in FEV $_1$ or FVC of 12% and 200 mL; and overlap COPD-asthma--the combination of the two.

Results: Out of 5,044 subjects, 767 were classified as having COPD (12%), asthma (1.7%), and COPD-asthma overlap (1.8%). Subjects with COPD-asthma overlap had more respiratory symptoms, had worse lung function, used more respiratory medication, had more hospitalization and exacerbations, and had worse GHS. After adjusting for confounders, the COPD-asthma overlap was associated with higher risks for exacerbations (prevalence ratio [PR], 2.11; 95% CI, 1.08-4.12), hospitalizations (PR, 4.11; 95% CI, 1.45-11.67), and worse GHS (PR, 1.47; 95% CI, 1.18-1.85) compared with those with COPD.

Conclusions: The coexisting COPD-asthma phenotype is possibly associated with increased disease severity.

Keywords:

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