Efficacy and Safety of Indacaterol and Glycopyrronium in COPD

An Update

To the Editor:

Our systematic review on the efficacy and safety of a fixed-dose combination of indacaterol and glycopyrronium (QVA149) for the treatment of COPD is publishing in this issue of CHEST (see page 309). In this study, we assessed this combination with its monocomponents (glycopyrronium and indacaterol) and tiotropium for the treatment of moderate to severe COPD. The results showed a superiority of inhaled QVA149 in terms of efficacy compared with glycopyrronium and with the current standard of care tiotropium. However, it was not possible to perform a pooled analysis of data comparing QVA149 vs indacaterol because we found only one trial with this comparison. Interestingly, a few days after our article published Online First, a new study evaluating the efficacy and safety of QVA149 against indacaterol alone was published. Because this study met all the inclusion criteria of our review, its data could be analyzed together with the only study that we found and, thereby, expand the results. The studies together included a total of 1,399 patients with moderate to severe COPD with a treatment duration of 24 weeks and 12 weeks. Data from both trials indicated that QVA149 was associated with a significant increase in trough FEV₁ at day 1 (mean difference, 0.08 L; 95% CI, 0.04-0.12 L; P = .0001; F = 0%) and at week 12 (mean difference, 0.08 L; 95% CI, 0.04-0.12 L; P = .0001; F = 0%) compared with indacaterol monotherapy. Additionally, the combination showed an 11% greater likelihood of experiencing a minimal clinically important difference in transitional dyspnea index (≥ 1 point) with a number needed to benefit of 11. Although a higher percentage of patients taking QVA149 achieved a minimal clinically important difference in St. George’s Respiratory Questionnaire score (≥ 4 units of total score) vs patients taking indacaterol alone, the difference was not statistically significant (relative risk, 1.07; 95% CI, 0.98-1.17; P = .15; F = 55%). Finally, the overall incidence of adverse events was similar across both treatment groups. Thus, this update of our review confirms the benefits and safety of combined bronchodilator therapy compared not only with glycopyrronium or tiotropium monotherapy but also with indacaterol.

Gustavo J. Rodrigo, MD
Montevideo, Uruguay
Vicente Plaza, MD, PhD
Barcelona, Spain

AFFILIATIONS: From the Departamento de Emergencia (Dr Rodrigo), Hospital Central de las Fuerzas Armadas; and Servei de Pneumologia (Dr Plaza), Hospital de la Santa Creu i Sant Pau, Universitat Autonoma de Barcelona.

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CORRESPONDENCE TO: Gustavo J. Rodrigo, MD, Departamento de Emergencia, Hospital Central de las Fuerzas Armadas, Av 8 de Octubre 3020, Montevideo 11600, Uruguay; e-mail: gustavo.javier.rodrigo@gmail.com

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