

Asthma Add-on Therapies Compared for Black Adults

Long-acting beta agonists no better than tiotropium

NOVEMBER 25, 2015

DENVER, CO — Long-acting beta agonists are no better than tiotropium at preventing asthma exacerbations in black patients when used as add-on therapies to inhaled corticosteroids, according to researchers at National Jewish Health and other institutions. The efficacy and safety of the long-acting beta agonists (LABAs) have been questioned, especially in black populations.

Tiotropium, an anticholinergic medication, was approved in September for use in asthma. The results of the Blacks and Exacerbations on LABA vs Tiotropium (BELT) study were published in *JAMA*, the journal of the American Medical Association.

“Tiotropium presents a reasonable alternative to long-acting beta agonists for black asthma patients whose disease is not controlled on inhaled corticosteroids alone,” said [Michael Wechsler](#), MD, lead author on the study and director of the asthma program at National Jewish Health.

The researchers enrolled 1,070 black asthma patients whose moderate to severe asthma was eligible for combination therapy, according to National Heart, Lung, and Blood Institute guidelines. Half received inhaled corticosteroids (ICS) plus once-daily tiotropium, while the other half received ICS plus twice-daily LABA, formoterol or salmeterol. The patients were followed for up to 18 months and were also genotyped to learn if different forms of the receptor for the LABAs influenced therapy.

Tiotropium and LABAs performed equivalently as measured by time-to-first-exacerbation, defined as a worsening of asthma requiring treatment with systemic corticosteroids. The mean number of exacerbations per person per year was 0.42 for ICS + tiotropium, and 0.37 for ICS + LABA. Margin of error made the two measures equivalent. The tiotropium group suffered more hospitalizations (19) than did the LABA group (10).

There were also no differences in various other measures including change in forced expiratory volume in one second (FEV¹), asthma control questionnaire scores, and other patient-reported outcomes. There was also no difference among patients with different forms of the receptor for LABAs.

“Although we could not detect a difference in exacerbations between either combination therapy, we found that, despite combination therapy, this population experienced a high rate of exacerbations,” wrote the authors in their paper.

Dr. Wechsler is the principal investigator on the ongoing NIH National Heart, Lung and Blood Institute sponsored Best African American Response to Asthma Drugs (BARD) study, aimed at improving asthma therapy for black patients, who are disproportionately burdened by the disease.

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