Intranasal ipratropium bromide reduced rhinorrhea and improved cold symptoms


Objective
To determine whether intranasal ipratropium bromide is effective and safe for reducing common cold symptoms.

Design
6-day, randomized, double-blind, placebo-controlled trial.

Setting
3 U.S. university health services.

Patients
411 adults (mean age 22 yrs, 91% white) with at least moderate rhinorrhea and documented nasal discharge (for <36 hours) associated with a cold. Exclusion criteria included asthma, chronic respiratory disease, allergic rhinitis, fever, or probabre bacterial infection.

Intervention
Patients were allocated to nasal spray with ipratropium bromide, 0.06% in a buffered salt solution (2 sprays/nostril [84 μg] 3 times/d for 4 d) (n = 137), the same nasal spray without ipratropium (n = 137), or no medication (n = 137). No cold medications other than analgesics and antitussives were allowed.

Main outcome measures
The main outcome measure was a global assessment of overall improvement (report by patients of being better or much better). Rhinorrhea was monitored in the clinic hourly for the first 6 hours on day 1 and hourly for 3 hours on day 2. Symptoms were monitored for 4 days.

Main results
Analysis was by intention to treat. Ipratropium reduced rhinorrhea (P ≤ 0.01), weight of nasal discharge (P < 0.001), and sneezing (P < 0.05) but not nasal congestion. Overall improvement was reported at day 1 in 87% of the ipratropium group, 73% of the placebo group, and 57% of the untreated group. At day 5, 81% of the ipratropium group, 65% of the placebo group, and 18% of the untreated group reported overall improvement (P = 0.003). (This 17% absolute difference in improvement between the ipratropium and placebo groups means that 6 patients (95% CI, 4 to 16) would need to be treated with ipratropium (rather than placebo) for 4 days to result in improvement for 1 additional patient; the relative risk improvement was 26%, CI 9% to 47%*). Rates of nasal dryness (12% vs 4%), blood-tinged mucus (17% vs 4%), and headache (9% vs 2%) were greater in the ipratropium group than in the placebo group.

Conclusion
Patients who used nasal sprays that contained ipratropium bromide reported improved cold symptoms and less rhinorrhea but had more adverse effects than did patients who received placebo or no treatment.

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For article reprint: Dr. E.G. Hayden, Box 473, Department of Internal Medicine, University of Virginia Health Sciences Center, Charlottesville, VA 22908, USA.

*Numbers calculated from data in article.


Reference