Position Statement

Academy Position Statement: The Use of Antihistamines in Patients with Asthma
November 2002

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This position statement was originally released in 1988 under the same title. It was updated, reviewed by the membership and the Board of Directors, and published on the Academy Web site in 2002 under the title: "The Use of Antihistamines in Patients with Asthma."

The statement below is not to be construed as dictating an exclusive course of action nor is it intended to replace the medical judgment of healthcare professionals. The unique circumstances of individual patients and environments are to be taken into account in any diagnosis and treatment plan. The above statement reflects clinical and scientific advances as of the date of publication and is subject to change.

Airway hyperresponsiveness to histamine is a hallmark of asthma, and histamine inhalation reproduces acute asthma symptoms. Plasma histamine concentrations are elevated during the early and late responses to inhaled allergens, and may also increase during spontaneous acute asthma episodes[1,2].

Although H1 antihistamines are not first line drugs for the treatment of asthma, they should not be withheld from patients with asthma when required for treatment of concomitant disorders such as allergic rhinitis, urticaria, and atopic dermatitis. In 1988, the American Academy of Allergy and Immunology recommended that the traditional labeling for antihistamines, which included the statement, "Antihistamines should not be used to treat lower respiratory tract symptoms including asthma" should be revised to indicate that antihistamines are not contraindicated in patients with asthma[3].

H1 antihistamines have, in fact, been demonstrated to increase the threshold for bronchoconstriction after challenge with histamine, exercise, adenosine and, to a lesser extent, allergens, but not methacholine[1,2,4]. Combined with leukotriene modifiers, they enhance protection against the early and late allergic response[5], but not against exercise induced asthma[6]. In addition, H1 antihistamines result in modest bronchodilation. Their beneficial bronchoprotective and bronchodilator effects in asthma appear to be dose related[2,4,7-13].

Asthma is linked with allergic rhinitis in terms of epidemiology, anatomy, physiology, immunopathology, and response to treatment[14]. In patients with mild allergic inflammation throughout the airways, for example, in those with mild intermittent (seasonal) asthma and concomitant allergic rhinitis, H1 antihistamines in manufacturers' recommended doses have been demonstrated to relieve not only the rhinitis symptoms but also to improve the asthma symptoms significantly[15,16].

In moderate persistent asthma, some H1 antihistamines have dose related clinical benefits[7-13], including steroid sparing effects[8]. These benefits are not worth the potential risks of central nervous system adverse effects from first generation sedating antihistamines. Further, if doses higher than those recommended for allergic rhinitis are required, the benefits may not be worth the risks of many second generation, relatively non sedating H1 antihistamines, as some of the newer drugs lose their non sedating advantage when high doses are given[17]. H1 antihistamines combined with leukotriene modifiers may have an enhanced effect in treatment of moderate persistent asthma[18]. In severe persistent asthma, however, H1 antihistamines should not be expected to confer significant benefits[19].

There is preliminary evidence from randomized, double blind, placebo controlled studies of one to three years duration that some H1 antihistamines which have prominent, multi faceted anti allergic effects may delay the onset of asthma in some infants who are at high risk for asthma development because of a family history of atopy, atopic dermatitis, and elevated serum IgE[20-22].

In summary, the role of H1 antihistamines in asthma continues to evolve. With the introduction of new H1 antihistamines with improved benefit to risk ratios which can be used at high dosage with minimal risk of central nervous system adverse effects, this role will likely become more prominent in the future.

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