

Position Statement

Academy Position Statement: Adrenergic Blockers, Allergen Immunotherapy and Skin Testing November 2002

AAAAI Position Statements and Work Group Reports are not to be considered to reflect current AAAAI standards or policy after five years from the date of publication. For reference only.

This position statement was originally released in 1989 under the title, "Beta-Adrenergic Blockers, Immunotherapy, and Skin". It was updated, reviewed by the membership and the Board of Directors, and published on the Academy Web site in 2002 under the title: "Adrenergic Blockers, Allergen Immunotherapy and Skin Testing".

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.

Although life-threatening reactions are rare, life-threatening systemic reactions (anaphylaxis and/or asthma), and in some cases, fatalities after injection of allergen vaccines, have been reported.¹ Allergen immunotherapy is a widely accepted and effective option to treat allergic patients and is generally safe when it is performed by knowledgeable physicians.² Case reports, however, have suggested that a systemic reaction to allergen vaccines, as well as to drugs, foods, insect stings, testing material and other agents, may occur with greater frequency and be more difficult to treat in patients receiving beta-blocking agents.³⁻¹³

Beta-blockade enhances pulmonary, cardiovascular and dermatologic end organ effects of mediators and increases mortality associated with experimental anaphylaxis induced by either immunologic or non-immunologic mechanisms.^{14,15} It has also been suggested that atopic patients may be a special risk for such reactions.^{16,17} The potential for severe bronchospasm in patients receiving beta-blocking agents is documented.¹⁸⁻²⁰ There was no significant increased risk of a systemic reaction to conventional radiocontrast media in patients undergoing cardiac angiography who were receiving beta-blocking agents in the only published prospective study addressing this issue. Reactions were mild and responded to therapy, including epinephrine.²¹ However, similar studies have not been done to determine the risk with allergen immunotherapy.

Although beta-blocking agents may delay recovery and make treatment more difficult in some patients, the degree to which these drugs actually increase the incidence of such reactions remains unclear. Nevertheless, there is sufficient medical evidence to adopt a cautious attitude toward the concomitant use of allergen immunotherapy and beta-blocking agents and skin testing patients receiving beta-blocking agents. In fact, a warning about the concomitant use of beta-blocking agents and allergen immunotherapy has been placed in the package insert of allergen vaccines.

The AAAAI therefore recommends:

- Physicians should be aware of the potential increased risk associated with concomitant administration of allergen immunotherapy and beta-blocking agents and should not, when this is possible, use these drugs and immunotherapy concomitantly.
- When it is possible, an equally effective and safe medication should be substituted for a beta-blocking agent if the physician who prescribes or administers immunotherapy is aware that the patient is receiving such a drug.
- Allergen immunotherapy should be initiated only after weighing the possible benefits and risks in patients who cannot stop beta-adrenergic blocking agents.

- Systemic reactions to skin testing are rare. Nevertheless, special precautions, when these are appropriate, should be taken when the patient who needs sensitivity testing for IgE-mediated disease cannot stop treatment with a beta-blocking agent.
- A warning of the potential dangers of systemic reactions from allergens to which the individual is sensitized should be included in the labeling of beta-blocking agents.
- Physicians and other medical personnel preparing allergen vaccines should consider placing a warning label about the risk of concurrent beta-blocking agents and allergen immunotherapy on vials dispensed.
- Prospective studies are necessary to clarify the magnitude of the risk of systemic reactions to allergens in patients who are receiving concomitant therapy with beta-blockers.

References

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2002 revision was drafted by:

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And reviewed by the membership and the 2002 Board of Directors.

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