

Etiology of exercise-induced dyspnea: Not just exercise-induced asthma or vocal cord dysfunction

To the Editor:

In considering the differential diagnosis of exercise-induced asthma, The Work Group Report on exercise-induced asthma¹ failed to consider that the differential diagnosis of exercise-induced dyspnea includes more than vocal cord dysfunction and the less common entities of exercise-induced laryngomalacia and exercise-induced anaphylaxis. In a recent report, only 8 of 52 children referred to a pediatric pulmonologist with a diagnosis of difficult-to-manage exercise-induced asthma actually had evidence for exercise-induced bronchospasm.²

In a publication from the Pediatric Allergy and Pulmonary Division at the University of Iowa, 98 of 142 patients referred to our clinic for exercise-induced dyspnea had their symptoms attributed to asthma by the referring physician. Among the 117 for whom symptoms could be reproduced during treadmill exercise testing, only 11 had exercise-induced asthma. Seventy-four demonstrated only normal physiologic exercise limitation, 48 of these 74 with normal to high cardiovascular conditioning and 26 with poor conditioning.³ Other diagnoses associated with reproduced exercise-induced dyspnea included restrictive abnormalities in 15 patients, vocal cord dysfunction in 13 patients, exercise-induced laryngomalacia in 2 patients (1 of whom had unilateral vocal cord paralysis), primary hyperventilation during exercise in 1 patient, and supraventricular tachycardia in 1 patient.

Our data indicated that exercise-induced asthma is unlikely to be the etiology of exercise-induced dyspnea in the absence of other current or past symptoms consistent with asthma or the failure for albuterol to block exercise-induced dyspnea when baseline pulmonary function is normal. Exercise testing that monitors cardiopulmonary physiology while symptoms are reproduced provides the most comprehensive means of identifying the cause of exercise-induced dyspnea. Identifying the cause is essential for treating and/or counseling the patient.³

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Disclosure of potential conflict of interest: The author has declared that he has no conflict of interest.

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Available online October 10, 2007.
doi:10.1016/j.jaci.2007.08.062

Reply

To the Editor:

Weinberger¹ suggests that the Work Group “failed to consider that the differential diagnosis of exercise-induced dyspnea includes more than vocal cord dysfunction... exercise-induced laryngomalacia and exercise-induced anaphylaxis.” Weinberger may not have appreciated the focus of our report, on exercise-

induced asthma rather than exercise-induced dyspnea²; the references to which he refers discuss children and young adults with exercise-induced dyspnea and not exercise-induced asthma.^{3,4}

Physical deconditioning is one common cause of exercise-induced dyspnea, particularly in school-age children who do not have asthma, but some of these children are mistakenly diagnosed as having asthma. Deconditioning is common in sedentary, obese children. It may be seen in children with asthma, even well-controlled asthma, if they were previously unable to exercise because of poor asthma control or if their activity was restricted by overly concerned parents. Individuals with apparently normal or even some with high cardiovascular fitness may have dyspnea as well, as Weinberger’s group³ reported.

We also agree that asthma is a common cause of exercise-induced dyspnea¹ but only when accompanied by other symptoms of asthma.² The patients described retrospectively by Weinberger’s group³ presented with exercise-induced dyspnea but the manuscript failed to quantify or even describe the presence of cough, wheeze, and tight chest in these patients, especially occurring 5 to 30 minutes after intense physical exercise as is expected with typical exercise-induced asthma. Thus, we cannot evaluate these patients as to whether they were likely to have asthma.

In summary, we agree with the previously referenced manuscript that asthma is a common cause of dyspnea³ but we disagree that a history of exercise-induced dyspnea alone is a typical presentation for exercise-induced asthma, which most commonly presents with dyspnea, cough, wheezing, chest symptoms, and a drop in FEV₁ from baseline. In Weinberger’s series,⁴ not surprisingly, only 11% of their subjects had a positive exercise challenge. Thus, we chose not to include a detailed description of all the variable clinical presentations and causes of exercise-induced dyspnea in a discussion of the differential diagnosis of exercise-induced asthma.

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Available online October 15, 2007.
doi:10.1016/j.jaci.2007.08.064

American Academy of Otolaryngic Allergy endorses the Allergen Immunotherapy Practice Parameter

To the Editor:

On behalf of the American Academy of Otolaryngic Allergy, we would like to congratulate Linda Cox, MD, Supplement

Editor, and James T. Li, MD, Harold Nelson, MD, and Richard Lockey, MD, coeditors, as well as all of the involved reviewers, on their recent update to the Allergen Immunotherapy Practice Parameter.¹

As we move toward a more outcomes-based health care system in which payers are defining patient care to a larger degree than the physician community as a whole, it is imperative to have medical organizations work collectively on behalf of the patient. Although the insurance industry might have a lock hold on defining payment parameters, it is the physician community that is focused on optimal patient outcomes. We applaud the American College of Allergy, Asthma and Immunology; the American Academy of Allergy, Asthma & Immunology; and the Joint Council of Allergy, Asthma and Immunology for their work in this arena.

It is important for physicians to define guidelines for the safe and effective use of allergen immunotherapy, focusing on improving optimal outcome while reducing practice variances and unjust excessive costs. The efficacy of immunotherapy is well documented in the parameter. Over the last 10 years, there have been innumerable studies validating this.

On behalf of the American Academy of Otolaryngic Allergy, we fully support this parameter and adhere to its precepts.

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Disclosure of potential conflict of interest: The author has declared that he has no conflict of interest.

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doi:10.1016/j.jaci.2007.10.030

Reply

To the Editor:

The editors of "Allergen immunotherapy: A practice parameter second update" and the members of the Joint Task Force on Practice Parameters acknowledge the recognition and support of the American Academy of Otolaryngic Allergy (AAOA).¹ Although the allergen immunotherapy practice parameters² were developed by the Joint Task Force on Practice Parameters and reviewed and approved by the sponsoring organizations, the American Academy of Allergy, Asthma & Immunology; the American College of Allergy, Asthma and Immunology; and the Joint Council of Allergy, Asthma and Immunology, they are intended to provide guidelines for all physicians who prescribe or supervise allergen immunotherapy. The recommendations are evidence-based or broadly accepted consensus opinion if evidence is lacking.

The objective of these parameters is to optimize the efficacy and safety of allergen immunotherapy while reducing unnecessary variation in immunotherapy practice, a common goal for all physicians who treat patients with allergen immunotherapy.

The president of the AAOA, Dr Fass, states that his organization has the same goal as the Joint Task Force on Practice Parameters: to develop evidence-based guidelines that will optimize treatment and reduce unnecessary variation in clinical practice. By endorsing these parameters, the AAOA has

contributed significantly to the promotion of effective and safe allergen immunotherapy and improved the quality of care for patients.

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Disclosure of potential conflict of interest: R. Lockey has consulting arrangements with Curalogic, Dey, and Schering-Plough; is on the speakers' bureau for AstraZeneca, Curalogic, Dey, Genentech, Merck, Novartis, and Schering-Plough; has received honoraria from AstraZeneca, Curalogic, Dey, Genentech, Merck, Novartis, and Schering-Plough; and has received grant support from Altana, AstraZeneca, Aventis, Dyax, Genentech, GlaxoSmithKline, Greer Laboratories, Merck, Novartis, Schering-Plough, and Sepracor. H. Nelson has consulting arrangements with Genentech/Novartis, Curalogic, GlaxoSmithKline, Schering-Plough, APT Pharmaceuticals, Dey, Dynavax, Abbott, and MediciNova; has received grant support from Schering-Plough, TEVA, Critical Therapeutics, Wyeth, Altana, Behringer, Novartis, AstraZeneca, Sepracor, and Genentech; and is on the speakers' bureau for GlaxoSmithKline and AstraZeneca. J. M. Portnoy has consulting arrangements with Clorox and Greer Laboratories, has received grant support from Clorox, and is on the speakers' bureau for Sanofi-Aventis, Merck, Schering, GlaxoSmithKline, and AstraZeneca. The rest of the authors have declared that they have no conflict of interest.

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doi:10.1016/j.jaci.2007.10.031

Egg oral immunotherapy in nonanaphylactic children with egg allergy: Follow-up

To the Editor:

As senior authors on the recent article "Egg oral immunotherapy in nonanaphylactic children with egg allergy,"¹ we wanted to clarify the outcome of our ongoing investigations utilizing egg oral immunotherapy (OIT). The overall goals of the continuing study are to determine if children with egg allergy can be protected against adverse reactions to accidental egg ingestions and to induce long-lasting oral tolerance to egg. The current standard treatment of food allergy is limited to an appropriate diagnosis and then treatment with antihistamines and epinephrine if needed in case of an accidental significant allergic reaction.

The initial 7 subjects in the pilot study reported in our published article showed that egg OIT could be utilized to raise the threshold of food ingestion that it takes to cause allergic symptoms on accidental egg ingestion. All 7 subjects were able to complete the OIT protocol safely.

This correspondence is to make readers aware that subsequent to this report, we have continued to enroll subjects in this investigation. We now have 2 subjects of the 21 entered who