
Correspondence

ASPIRIN CHALLENGE AND DESENSITIZATION FOR ASPIRIN-EXACERBATED RESPIRATORY DISEASE: A PRACTICE PAPER

To the Editor:

Guidelines on aspirin challenge and desensitization recently published in the *Annals* state that outpatient desensitization is appropriate for selected, relatively low-risk patients, but they also state that “aspirin desensitization should be performed in a facility able to provide advanced cardiac care, ventilator support, and constant observation by qualified personnel” and that “equipment must be available for continuous respiratory and cardiovascular monitoring, pulse oximetry, spirometry, and cardiopulmonary resuscitation.”¹

By contrast, the parameter on allergen immunotherapy states, “Allergen immunotherapy should be administered in a setting where procedures that can reduce the risk of anaphylaxis are in place and where the prompt recognition and treatment of anaphylaxis is assured.”² The anaphylaxis practice parameter states, “Allergen immunotherapy should be administered only in health care facilities with the proper equipment for the treatment of anaphylaxis. Such equipment includes epinephrine, oxygen, antihistamines, corticosteroids, vasopressors, oral airway, and equipment for the administration of intravenous fluids and medications.”³

The immunotherapy and anaphylaxis parameters’ requirements are consistent with the resources that can be made available in most outpatient offices. In contrast, the recommendations of the aspirin practice paper more closely match the facilities found in a university hospital intensive care unit than in an ambulatory setting. This puts the allergist in the unenviable position of having to justify hospital admission for a procedure that published guidelines now suggest can be performed in an outpatient setting or, worse yet, to explain why “advanced cardiac care [and] ventilator support” is not available after a complication occurs.

The authors should be commended for trying to help allergists move aspirin desensitization from the experimental to the clinical realm in a practicable manner so that more patients can benefit from this procedure. Unfortunately, before their suggestions can be widely used, clarification is required, particularly as it relates to defining appropriate and feasible safety requirements for outpatient diagnosis and treatment of aspirin-exacerbated respiratory disease.

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The above correspondence was referred to the original authors who provided the following response:

The difference in the patient setting for aspirin challenge/desensitization vs immunotherapy is based on the specific characteristics of the 2 populations. Candidates for aspirin desensitization are typically middle-aged moderate-to-severe asthmatic patients taking high-dose inhaled corticosteroids, with some taking oral corticosteroids. Pulmonary function at baseline is often lower than 80%. In contrast, immunotherapy patients are typically younger, have excellent pulmonary function (forced expiratory volume in 1 second >80%), and have mild asthma. Practice parameters from the American Academy of Allergy, Asthma, and Immunology indicate that uncontrolled or severe asthma is a formal contraindication for immunotherapy.¹ In contrast, aspirin challenge/desensitization is predominantly performed in patients with poorly controlled asthma and nasal polyposis who have failed all other pharmacologic interventions. Once patients are triggered by aspirin, the forced expiratory volume in 1 second can decrease rapidly and significantly to the point that intubation might be necessary. Although the American Society of Anesthesiologists challenge and desensitization can be performed in the outpatient setting, the setting requires resuscitation and intubation capabilities not only anaphylaxis treatment capabilities.

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HOW MANY ASTHMATIC PATIENTS HAVE ASTHMA?

To the Editor:

The article by Castro-Rodriguez et al¹ describes the characteristics of 237 children (4–14 years old) with an asthma diagnosis in a developing country who were followed up at a tertiary care institution. The main inclusion criterion was asthma. All the children underwent spirometry (before and after bronchodilator therapy) and exercise challenge testing. A positive bronchodilator response was defined as an improvement in forced expiratory volume in 1 second of more than 15%.

Based on allergen skin prick test results, children were divided into 2 groups: atopic asthma and nonatopic asthma. The clinical, functional, and epidemiologic characteristics of both groups were described. However, a few points should have been considered before its publication. First, it is well known that not all children who wheeze have asthma. Transient early wheezers are not considered to have asthma. They wheeze at the age of 3 years but not at the age of 6 years, and up to 15% of them may wheeze at the age of 16 years.^{2,3} They are not atopic.

Second, the prevalence of atopy increases with age as asthma becomes a likely diagnosis. In the Tucson cohort the prevalence of atopy in wheezers (persistent and late) by means of skin prick testing performed at the age of 6 years was 53.4% and at the age of 16 years was 82.1%.^{2,3} Third, and as expected, the prevalence of atopy is higher in children who have asthma. In the Characterizing the Response to a Leukotriene Receptor Antagonist and an Inhaled Corticosteroid trial⁴ the prevalence of atopy in asthmatic children was 78%. All the asthmatic patients had asthma; 3% had bronchodilator reversibility, 33% had methacholine responsiveness, and the remaining 64% had both.⁴

Therefore, it is impossible to conclude that children in the study by Castro-Rodriguez et al¹ have asthma, first because they did not present their data on bronchodilator responses and second because they included patients in a wide age range (4–14 years old). Asthma is often overdiagnosed, and this study proves it.⁵ Mixed populations of wheezers are presented as asthmatic patients, as if everything learned during the past 20 years had vanished.^{2,3}

It is possible that clinical guidelines implementation may be responsible for asthma overdiagnosis.^{5,6} However, researchers should answer the title question, “How many asthmatic patients have asthma?” Policymakers, health payers, patients, and physicians want to know the answer but do not have the information that these researchers have withheld.

Author has nothing to disclose.

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The above correspondence was referred to the original authors who provided the following response:

We thank Dr Gereda for his comments regarding our recently published study.¹ Dr Gereda pointed out in his letter, “Mixed populations of wheezers are presented as asthmatic patients, as if everything learned during the past 20 years had vanished.” Dr Gereda is not taking into consideration that asthma is a heterogeneous disease, with a clinical diagnosis, in which many environmental factors and genetic polymorphisms have been reported to be associated in different localities and at different ages.² In the end, all asthma genotypes and phenotypes have a common feature: the reversibility of airway obstruction, with very variable signs and symptoms among patients.

In the 1980s the theory was formulated that exposure to house dust mites and other allergens was the most important worldwide cause of the disease. At present, however, population studies around the world show that only 54% of asthma cases are attributable to atopy (positive skin test results).³ The worldwide prevalence of atopy (positive skin prick test results) in children with current symptoms varies: 69% in western Germany,⁴ 62.4% in Spain,⁵ 58% in Sweden,⁶ 25% in Estonia,⁶ and only 21.5% in Peru.⁷ We recently demonstrated that the population-attributable fraction of asthma due to atopy is very different even within the same country.⁸ There-

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fore, taking the prevalence of atopy among wheezers only from studies performed in the United States^{9,10} is a partial view.

All the children included in our study met the definition of asthma included in the National Asthma Education and Prevention Program,¹¹ and their mean age was 8.8 years in the atopic asthmatic and 7.2 years in the nonatopic asthmatic groups. At this age only 2 main phenotypes of asthma coexist: IgE-associated (or atopic) or classic asthma and nonatopic asthma¹²; therefore, the probability of including transient wheezers in our study was very low. The reference that Dr Gereda quoted related to the fact that “asthma is often overdiagnosed”¹³ comes from the personal point of view of an author and not from a clinical or epidemiologic study.

Finally, to answer the question, “How many asthmatic patients have asthma?” The current view of this condition is much more complex than being just an allergic disease, with a large degree of heterogeneity and unpredictability of its expression, which is evident in any asthma clinic.² This is more so in developing countries, where other environmental factors, different from allergens, may play a much more important role.

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