Guest editorial

Latex allergy

With increasing frequency, allergists are being asked to evaluate patients with alleged latex hypersensitivity. By now, most readers of the *Annals* are familiar with the clinical presentation of this entity. Latex exposure occurs in medical, recreational, and occupational settings; exposures associated with medical or dental procedures lead to the most severe reactions. These reactions include the full spectrum of IgE-mediated phenomena, from mild urticaria to fatal anaphylaxis. Although all humans appear to be at some (small) risk, those at greatest risk include health care workers, rubber industry workers, and children with spina bifida. Others who undergo frequent surgical procedures, such as children with cerebral palsy or major congenital malformations of the urinary tract or central nervous system, appear to be at greater than average risk as well.[1]

In this issue of the *Annals*, two reports explore another possible risk group, patients with fruit allergies. Both investigations document—as have prior researchers[2–4]—clinical and immunologic cross-reactivity among latex, banana, and chestnut. It is notable that most of the patients reported by Rodriguez et al.[5] and de Corres et al[6] do not belong to any other identifiable risk group for latex allergy. This suggests that we ought to include fruit-sensitive patients as an independent risk group, although no survey data are yet available to verify this.

It is interesting that both reports found that serologic tests for latex-specific IgE were fully concordant with epicutaneous tests. This has not been the experience reported in larger series. While skin tests appear to be accurate among all risk groups, in vitro tests, such as those performed by de Corres et al and Rodriguez et al, are not currently sufficiently sensitive for diagnostic use in health care workers.[7] Unfortunately, a very few reports of anaphylactic reactions following skin tests have dampened widespread enthusiasm for in vivo testing.[8,9] In addition, since the Food and Drug Administration (FDA) has not yet approved a latex skin testing reagent (to my knowledge, no reagent has been submitted for approval), latex skin tests in the US remain the province of the academic or the daring. With no readily available confirmatory tests, the diagnosis of latex allergy remains one based predominantly upon a careful history and, on occasion, an environmental survey.

Once the diagnosis is made, *avoidance is the only effective mode of therapy.* Pretreatment with antihistamines and/or glucocorticosteroids may ameliorate a reaction, but there is no evidence to suggest that it will. Unfortunately, latex is present in so many medical devices and accessories that avoidance can be difficult. Many questions regarding the antigen content and bioavailability of natural rubber products remain unanswered. Furthermore, some of us have experienced first hand the many frustrating hours of phone calls, letters, and facsimile transmissions needed to discover the natural rubber content of, for instance, an endotracheal tube. The task of the hospital administrator charged with the responsibility of stocking a "latex-free" operating room is daunting.

Within the medical community, a few dermatologists, radiologists, pediatricians, pediatric nurses, anesthesiologists, orthopedists, and urologists have recognized the significance of latex allergy as a major iatrogenic hazard. As a group, however, only allergist-immunologists have engaged this issue directly and with appropriate urgency. The American College of Allergy and Immunology and the American Academy of Allergy and Immunology have established active committees charged with the ambitious goals of clarifying murky issues, establishing fruitful research networks, bringing pressure to bear on appropriate industries and federal agencies, and educating the medical and lay communities. The interweaved efforts of these groups, along with those of dozens of physicians and researchers—most of them allergists—in Belgium, Canada, Finland, France, Germany, Spain, Sweden, the United Kingdom, and the United States have produced useful information and solid recommendations that are logically coherent, practical and, potentially, life-saving.

In contrast, health care industries and responsible regulatory agencies seemed paralyzed, until quite recently, by institutional inertia. As of this writing (December 15, 1992), 13 years after the first report of allergy to natural rubber[10] and 3 years after a series of tragic deaths from latex-cuffed barium enema catheters,[11] no plan has been implemented to label latex-containing products in the US. Furthermore, no list of latex-free products has been made available to the general or medical communities. Finally, as noted above, no latex extract is

commercially available in the US for the diagnosis of this important disorder.

There are a few encouraging signs. Members of the Health Industry Manufacturers Association have agreed to begin labelling products in the near future. The FDA's Center for Devices and Radiological Health, which first alerted the medical community to the problem in late 1990, held a conference after Election Day for physicians, scientists, and industry. Labelling and antigen-reduction plans were discussed but none has been instituted. The FDA's hardworking Laboratory for Allergy and Immunochemistry has distributed a pilot latex antigen preparation among investigators for in vitro testing. One hopes that, by the time this commentary appears, allergists and other physicians will have received the vigorous governmental and industrial support they need to grapple with a problem that they cannot solve alone.

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