

Editorial

How dangerous is food allergy in childhood?

Editors should normally resist the temptation to criticize papers published in other journals. However, on this occasion I have been unable to restrain myself because the issue under discussion is so overwhelmingly important to pediatric allergists that the controversies should be widely discussed. I feel even more of a responsibility because the paper involved comes from the United Kingdom.

In the April 2002 issue of *Archives of Disease in Childhood*, a review of fatal and severe allergic reactions to food in a large population of UK children is presented. The conclusions of the study are that the risk of a food-allergic child dying from an acute reaction is about 1 in 800 000 per year. While the authors concede that those food-allergic children with asthma may be at higher risk, they do suggest that the prescribing of an epinephrine autoinjector requires a careful balance of advantages and disadvantages. They intimate that one fatality was due to an overdose of epinephrine. However, it is very clear that that particular case was given an intravenous dose of 3.5 mg, which is 10 times that acceptable for an adult when administered intramuscularly. Furthermore, further subsequent doses of epinephrine were administered after the patient collapsed. Thus this cannot be used as an argument for not prescribing epinephrine autoinjectors.

What are the problems with this paper? It is based on a tried and tested system employed by the British Paediatric Surveillance Unit. This has been used to study the epidemiology of uncommon childhood disorders in the UK by circulating all pediatricians monthly for them to report any of 10–12 conditions currently under surveillance. The response rate has been extremely good: always higher than 90%. However, this system has not hitherto been employed to study common disease such as that of food allergy, which may affect at least 5% of the childhood population. Furthermore, it is quite clear that pediatricians are only one of many different specialists who might be called on to

see such patients. They also employed scrutiny of notifications of deaths but deliberately excluded asthma deaths. In fact, it is very likely that a percentage of putative asthma deaths were due to anaphylaxis. Indeed, post-mortem studies show that 10–15% or more have relatively clear airways. Thus there could well be a very considerable underestimate of the number of deaths.

The ascertainment through pediatricians deliberately also excluded children who received only one injection of epinephrine. The authors chose to deem 'severe' as implying the need for more than one injection. It is clear, however, that early use of epinephrine is the key factor in surviving anaphylactic reaction. The early use of a single dose may well prevent further progression to life-threatening problems. There is some evidence based on surveys of food-allergy sufferers in the UK that two-thirds of individuals resorting to autoinjector epinephrine do not subsequently present themselves at hospital but choose to continue their own management. Thus the representation of severe and life-threatening reactions may have been under-recorded by at least 66%.

The issue as to whether to prescribe autoinjector epinephrine to an individual who has had an acute reaction, particularly to peanut, tree nut, fish, shell fish, egg or milk, is always difficult to address. Even in this publication, it was clear that a few children who died had previously had only mild reactions to the food allergen. Thus it is not possible to predict future severity in relation to past experience. Under such circumstances, it would seem prudent to err on the side of caution and issue the injector. Obviously this should be coupled with very careful advice on avoidance and reassurance about the relatively low risk of life-threatening reaction, particularly in early childhood.

There is also, of course, the issue of ensuring that in childhood all precautions are in place so that by the time the patient reaches adoles-

cence, where there clearly is an increasing risk of life-threatening reaction, the individual has full information and a long-standing cautious approach, particularly to eating away from home. Introducing the concept of caution only in adolescence could be doomed to failure.

I would strongly urge all to read the paper and if they have any concerns to voice them publicly. It is only by having an open discussion between professionals that we will arrive at

a sensible conclusion as to whether food allergy in childhood is dangerous or not.

J. O. Warner
Editor-in-Chief

Reference

1. MacDougall CF, Cant AJ, Colver AF. How dangerous is food allergy in childhood? The incidence of severe and fatal reactions across the UK and Ireland. *Arch Dis Child* 2002; 86: 236–9.