

Results of radioallergosorbent test to detect allergen specific IgE antibodies in serum and of other tests for allergies in three of four patients who developed anaphylaxis after eating peanuts (tests were not done in case 2)

Test and allergen	Case 1	Case 3	Case 4
Radioallergosorbent test (mean (SE) % uptake of IgE antibody labelled with iodine-125):			
Control (human serum albumin)	0.78 (0.07)	0.66 (0.17)	0.70 (0.11)
Peanut	32.59 (1.07)	33.60 (1.99)	34.26 (0.26)
Pea	13.50 (0.67)	11.64 (0.23)	7.89 (0.35)
Soyabean	14.70 (0.75)	9.11 (0.35)	7.74 (0.18)
White bean	4.87 (0.24)	1.82 (0.02)	1.29 (0.03)
Lentil	7.13 (0.04)	0.42 (0.02)	
Brazil nut	15.24 (0.84)	5.18 (0.26)	6.31 (0.48)
Hazel nut	4.25 (0.28)	3.86 (0.25)	2.52 (0.06)
Almond	2.63 (0.09)	1.02 (0.04)	
Skin prick test*:			
Peanut	Positive	+++++	+++++
Other legumes and nuts	Positive	+ to ++++	+ to ++
Inhalants	Positive	Positive	Positive
Total serum IgE (kU/l) (normal <180)†	550	310	170
Plasma methylhistamine (µg/l) (normal <0.6)†	7.2		0.6 (Late sample)
Serum eosinophil cationic protein (µg/l) (normal <33)	92		120
Leucocyte histamine release test in vitro	Cells desensitised*		

\*Test done in patient's home country (United States in case 1, United Kingdom in case 3, Denmark in case 4).

†Test done at height of reaction in case 1 and six hours afterwards in case 4; material for measurements obtained from Pharmacia.

nuts; subsequent examination showed that they contained pieces of peanut.

**Case 4**—A 15 year old boy with a history of asthma and allergy to nuts developed less severe manifestations than those seen in cases 1-3 after eating a piece of cake containing nuts.

### Comment

A few anaphylactic reactions to foods have been reported in the United Kingdom,<sup>1</sup> but none were fatal and in most cases specific IgE antibody was either not

measured or found to be negative. Many more cases have been reported in the United States,<sup>2</sup> although data on their incidence are scanty. Data on fatal reactions are even more rare, and we have found a single report of seven such cases, all in the United States<sup>3</sup>; four of these reactions were due to peanuts.<sup>1,4</sup> Botanically the peanut is a legume, not a nut.

Strongly positive results of skin tests and radioallergosorbent tests (table) indicated the severity of the allergy to peanuts in three of our four cases. Further evidence of an allergic reaction was obtained with other tests in cases 1 and 4. Despite the rarity of such reactions our four patients presented within 18 months. All four were aware of their allergies but could not avoid the allergen. In most of the fatal cases reported food was ingested away from home. Intake of alcohol, reliance on antihistamines, and denial of early symptoms were among the factors that seem to have contributed to the severity of the reaction and failure of resuscitation. Cardiorespiratory arrest occurred in cases 1-3, and the cardiac component ("cardiac anaphylaxis") may have been important.<sup>5</sup>

1 Miell J, Papouchado M, Marshall AJ. Anaphylactic reaction after eating a mango. *Br Med J* 1988;297:1639-40.

2 Gerrard JW, Perelmutter L. IgE-mediated allergy to peanut, cow's milk and egg in children with special reference to maternal diet. *Ann Allergy* 1986;56:351-4.

3 Yunginger JW, Sweeney KG, Sturmer WQ, et al. Fatal food-induced anaphylaxis. *JAMA* 1988;261:1450-2.

4 Fries J. Peanuts: allergic and other untoward reactions. *Ann Allergy* 1982;48:220-6.

5 Assem ESK, Ling BY. Fatal anaphylactic reaction to suxamethonium: new screening test suggests possible prevention. *Anaesthesia* 1988;43:961-3.

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## 245 Vegetableburger allergy: all was nut as it appeared

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Beefburgers are a long established, popular type of food in both takeaway shops and many restaurants. Because of the increased demand for vegetarian food the sale of the "vegetableburger" is now widespread. These are often found alongside beefburgers on menus. We describe an allergic reaction to a vegetableburger that was mistaken for a beefburger.

### Case report

A 28 year old dentist presented to the casualty department after a meal at a local cafe. She and her friends had ordered beefburgers, which were served in baps along with french fried potatoes and salad. After taking a bite from what she believed to be the beefburger she had ordered, she felt an immediate burning sensation in her mouth. Pharyngeal oedema soon developed, followed by widespread erythema, urticarial lesions on her upper chest, and bronchospasm. In the casualty department she was treated successfully with intravenous corticosteroids, antihistamines, and nebulised bronchodilators and discharged home after overnight observation.

### Comment

Our patient had a history of allergy to peanuts since childhood; ingesting peanuts caused the same constellation of symptoms cited above. She had successfully and fastidiously avoided eating peanuts until this occasion. Unfortunately, the vegetableburger, like many that are sold, contained peanuts. Mild anaphy-

laxis was thus induced. The similarities in appearance and presentation of the vegetableburger and the beefburger had prompted her mistake.

Allergy to peanuts in childhood may persist for many years<sup>1</sup> and can be fatal.<sup>2</sup> The accidental ingestion of peanut antigen in a disguised form was described in a patient who died after eating it in almond icing.<sup>3</sup> This episode in our patient highlights the potential danger of vegetarian food to the beefburger eating, peanut allergic, carnivore, which is born out of a modern trend for eating this type of food.

1 Bock SA, Atkins FM. The natural history of peanut allergy. *J Allergy Clin Immunol* 1989;83:900-4.

2 Yunginger JN, Sweeney KG, Sturmer WQ, et al. Fatal food induced anaphylaxis. *JAMA* 1988;260:1450-2.

3 Evans S, Skea D, Dolovitch J. Fatal reaction to peanut antigen in almond icing. *Can Med Assoc J* 1988;139:231-2.

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### Corrections

#### New antiviral and antifungal drugs

Two author's errors occurred in this article by Dr Peter Davey (24 March, p 793). The first paragraph of the section on interferons on p 796 states that "only interferon alfa-2a (Roche) is currently licensed to combat Kaposi's sarcoma in patients with AIDS." This is incorrect as Schering-Plough (formerly Kirby-Warrick) have a product licence for interferon alfa-2b (Intron A) for this indication and also for intralesional injection in patients with condyloma acuminatum (genital warts). Also, on p 795 the cost of zidovudine 200 mg six times a day was quoted as £13.75 a day; this cost was reduced to £11.00 on 20 September 1989.

#### Signs of illness preceding sudden unexpected deaths in infants

An editorial error occurred in this article by Dr Ruth E Gilbert *et al* (12 May, p 1237). The acknowledgments should have stated that Dr Gilbert was supported by a grant from the Foundation for the Study of Infant Deaths and Bath Unit for Research in Paediatrics and that Dr Yehu Azaz was supported by a grant from Action Research for the Crippled Child.

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