

Six cases of soy anaphylaxis

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Peanut is known to be a common cause of anaphylactic reactions but the involvement of the related soy bean has rarely been observed. To our knowledge, only one case of fatal soy anaphylaxis has been published.

Results from two ongoing studies in Sweden indicate that soy has probably been underestimated as a potent clinical allergen.

Methods

Since 1993 doctors have been asked to report all fatal and life-threatening anaphylactic reactions to food, and all fatal cases are analysed in as much detail as possible. In another study, all deaths due to asthma in the age group 1-34 years during the period 1994 to 1999 are being studied in detail. Asthma deaths are reported and in addition, to avoid missing cases, all death certificates with ICD-9 codes 490-496 (obstructive lung disease) and 995A (anaphylactic shock) are screened.

Results

During the period December 1992 to July 1996 two deaths caused by peanuts have been reported to us. During the same period four deaths and two near deaths occurred where soy was identified as the probable main culprit. All cases suffered from mild or moderate asthma and death was caused by asthma. All four cases of fatal soy anaphylaxis were severely peanut allergic, reacting already on indirect contact, but none of them was aware of the soy allergy. Skin tests and/or RAST showed strongly positive reactions to peanut, and moderately positive to soy. Two of the deaths (one due to peanut, one to soy) became known to us only through the asthma death study. The clinical course preceding death was similar, regardless of whether the reaction was caused by peanuts or soy, although the initial symptoms seemed to be milder in the deaths caused by soy. Moderate exercise and the intake of a cold beverage were probably aggravating factors in four cases.



Conclusion

Patients with severe peanut allergy may be at risk of reacting to soy, even if no previous soy allergy is known.

Sex, age	Asthma	Known food allergy	Provoking food	Time intake to onset of symptoms	Time intake to severe symptoms	Time severe symptoms to death	Remarks
1. m 15 y	mild	peanut	bun with peanut flakes	a few min	30-45 min	10-15 min	cold beverage
2. m 16 y	moderate	peanut	peanut beverage (home-made)	a few min	30 min?	15-20 min	
3. f 17 y	severe	peanut	meat balls (3% soy)	?	60min?	10-15 min	
4. m 18 y	mild	peanut	hamburger (soy)	15-20 min	60-90 min	20-30 min	cold beverage
5. m 10 y	mild	peanut	kebab (7% soy)	?	60 min?	15-20 min	
6. f 9 y	mild	peanut	hamburger (soy 2.2%)	5-10 min	30 min	15-20 min	
7. f 20 y	mild	peanut, soy	ice cream (soy)	5-6 min	30 min?	severe anoxic brain damage	
8. m 9 y	moderate	peanut, soy	hamburger (soy)	10-15 min	45-60 min	cardiac arrest on arrival to hospital, resuscitated	