

METHODS

Skin prick testing

Skin prick testing was done with the Greer Pick peanut extract (Greer Laboratories, Lenoir, NC), histamine, and saline-glycerin. Wheal and flare were measured, and saline-glycerin wheal size was subtracted from the peanut wheal size. Study personnel performing OFCs were masked to the size of the peanut SPT wheal.

Determination of observed feed versus OFC

If the average net peanut SPT wheal size was less than 3 mm, observed feeding to peanut was done. If the net SPT wheal size was at least 3 mm, an open OFC to peanut was performed. At first, there was no upper limit to the SPT wheal size for OFC, but after the first 9 infants with SPT wheal size more than 10 mm all failed the OFC, the protocol was changed with the Data Safety Monitoring Board's agreement to classify infants with a peanut SPT wheal size of greater than 10 mm peanut allergic without challenge.

Observed feed/OFC

Both observed feedings and OFCs were done to a goal dose of 3.9 g of peanut protein using peanut powder or peanut butter. The observed feeding was done in a nongraduated manner, whereas the OFC was given at 15-minute intervals. For observed feedings, the minimum consumed was 1.5 g of peanut protein, whereas for the OFCs, a minimum of 2.1 g (dose 5) was required for the child to be considered not allergic. If the infant did not consume the minimum required, the family was asked to return for another feeding or challenge; if they refused but the child introduced peanut at home without symptoms, the child was considered nonallergic.

Peanut-sIgE and components

Peanut-sIgE and sIgE to peanut components (Ara h 1, Ara h 2, Ara h 3, and Ara h 8) were quantified by ImmunoCAP at the Johns Hopkins Dermatology, Allergy and Clinical Immunology Laboratory.

TABLE E1. Sensitivity analysis among those with moderate-severe eczema only

Diagnostic test	Sensitivity (95% CI)	Specificity (95% CI)	LR+	LR–	ROC AUC
SPT wheal size 3 mm	92% (77%-97%)	82% (75%-88%)	5.2	0.10	0.87
SPT wheal size 8 mm	72% (55-84%)	98% (94%-99%)	38.04	0.28	0.85
Ara h 2-sIgE (0.1 kUa/L)	94% (79%-99%)	97% (92%-99%)	28.85	0.06	0.96
Ara h 2-sIgE (0.35 kUa/L)	89% (73%-96%)	99% (95%-99.7%)	67.75	0.12	0.94
Peanut-sIgE (0.1 kUa/L)	100%	68% (60%-75%)	3.14	0.00	0.84
Peanut-sIgE (0.35 kUa/L)	97% (82%-99.6%)	77% (70%-83%)	4.27	0.04	0.87
Ara h 1-sIgE	60% (43%-75%)	83% (76%-88%)	3.53	0.48	0.72
Ara h 3-sIgE	34% (20%-52%)	91% (85%-94%)	3.67	0.72	0.63
Ara h 8-sIgE	3% (0%-0.18%)	100%	—	0.97	0.51

LR+, Positive likelihood ratio; LR–, negative likelihood ratio; ROC, receiver-operator characteristic.