specialist alike to pursue a detailed history of the adverse event and to obtain diagnostic testing when indicated. This approach is now one of the recommended interventions issued by the American Academy of Allergy, Asthma, and Immunology as part of the "Choosing Wisely" campaign.

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Assessing the Diagnostic Properties of a Graded Oral Provocation Challenge for the Diagnosis of Immediate and Nonimmediate Reactions to Amoxicillin in Children

Mill C, Primeau MN, Medoff E, et al. *JAMA Pediatr*. 2016;170(6):e160033

PURPOSE OF THE STUDY. To assess the accuracy and the negative predictive value of the provocation challenge in a cohort of children referred to a single center with suspected amoxicillin allergy.

STUDY POPULATION. Children with suspected amoxicillin allergy who were referred to the Montreal Children's Hospital in Quebec, Canada, between March 1, 2012, and April 1, 2015, were recruited. Exclusion criteria were any reactions compatible with either Stevens-Johnson syndrome or toxic epidermal necrolysis.

METHODS. Children with a prior history of rash while receiving amoxicillin were administered oral drug challenges (10% of the therapeutic dose, then 90% of the dose 20 minutes later [ie, 50 mg/kg per dose to a maximum of 1.5g]). All children were observed for at least 1 hour after receiving their last dose. Only those with positive challenge results underwent skin testing (prick and intradermal) and were offered a subsequent graded provocation challenge to cefixime (3rd-generation cephalosporin). Univariate and multivariate logistic regressions were compared with determining factors associated with immediate (<1 hour) and nonimmediate reactions (>1 hour) to the provocation challenge.

RESULTS. Of 818 children assessed (median age of 1.7 years [interquartile range 1.0–3.9 years]; 441 [53.9%] male), 771 (94.1%) tolerated amoxicillin without any reaction, 17 (2.1%) developed immediate reactions (all were hives only; 5 reacted to initial 10%), and 31 (3.8%) developed nonimmediate reactions (maculopapular rashes and serum sickness–like reactions). For the 17 children who developed immediate reactions, skin tests were performed 2–3 months later with penicillin and the penicilloyl (major) determinant; the skin test was positive in only 1 patient (5.9%). All 17 tolerated cefixime. The graded amoxicillin challenge had a negative predictive value of 89.1% (95% CI, 77.1%–95.5%). A history of a reaction occurring within 5 minutes of exposure was associated with immediate reactions to amoxicillin. A rash that lasted longer than 7 days and parental history of drug allergy were associated with nonimmediate reactions to amoxicillin.

CONCLUSIONS. Graded provocation challenges provide an accurate and safe confirmatory test for skin-related reactions to amoxicillin. Further studies are required to assess factors associated with outcomes.

REVIEWER COMMENTS. Over half of the children enrolled in the study had their reaction to amoxicillin with their first exposure; such reactions are less likely to be immune mediated. Moreover, none had a history of anaphylaxis. Thus, these results may be applied to pediatric cases presenting with cutaneous, nonanaphylactic reactions.

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FOOD ALLERGY

Impact of Peanut Consumption in the LEAP Study: Feasibility, Growth, and Nutrition

Feeney M, Du Toit G, Roberts G, et al. *J Allergy Clin Immunol*. 2016;138(4):1108–1118

PURPOSE OF THE STUDY. To evaluate the feasibility of peanut (PN) introduction in infancy and its effects on growth and nutrition.

STUDY POPULATION. This study was a planned secondary analysis from the LEAP trial (*N Engl J Med*. 2015;372:803–813), in which 4- to 11-month-old infants who tolerated PN were advised to eat 6 g of peanut protein per week to age 5 years. The control population included infants who did not tolerate PN during the LEAP trial.

METHODS. PN consumption was monitored by using a validated questionnaire. Anthropomorphic measurements were taken and 3-day food diaries completed for each study visit. Average daily caloric intake and that of macro- and micronutrients were calculated.

RESULTS. The median age at screening was 7.8 months. Median peanut consumption exceeded 6 g throughout the study. Peanut introduction in infancy did not shorten the duration of breastfeeding. There was no difference between groups in weight, height, BMI, tricep skinfold thickness, or other anthropomorphic measurements. Total caloric intake was the same between groups. The percent of energy from carbohydrates was higher in the avoidance group at all time points, whereas the percent of energy from fat was higher in the PN consumption group, especially in the upper quartiles of consumption. The percent of energy from protein was comparable between groups. Similarly, there were no differences in the intake of sodium, calcium, iron, zinc, or vitamin D.

CONCLUSIONS. Early dietary introduction of peanut in high-risk infants who tolerate it has no effect on the duration of breastfeeding, growth, or nutrition.

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